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SUBCHAPTER I—SOLID WASTES (CONTINUED)

PART 266—STANDARDS FOR THE MANAGEMENT OF SPECIFIC HAZARDOUS WASTES AND SPECIFIC TYPES OF HAZARDOUS WASTE MANAGEMENT FACILITIES

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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 or RCRA section 3004(d), where no treatment standards have been established) for each recyclable material (*i.e.*, hazardous waste) that they contain. Commercial fertilizers that are produced for the general public's use that contain recyclable materials also are not presently subject to regulation provided they meet these same treatment standards or prohibition levels for each recyclable material that they contain. However, zinc-containing fertilizers using hazardous waste K061 that are produced for the general public's use are not presently subject to regulation.

(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.

[50 FR 666, Jan. 4, 1985, as amended at 52 FR 21307, June 5, 1987; 54 FR 36970, Sept. 6, 1989; 59 FR 43500, Aug. 24, 1994]

§ 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 and 265 and parts 270 and 124 of this chapter and the notification requirement under section 3010 of RCRA.

§ 266.23 Standards applicable to users of materials that are used in a manner that constitutes disposal.

(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.

[50 FR 666, Jan. 4, 1985, as amended at 50 FR 28750, July 15, 1985; 59 FR 48042, Sept. 19, 1994]

Subpart D–E [Reserved]

Subpart F—Recyclable Materials Utilized for Precious Metal Recovery

§ 266.70 Applicability and requirements.

(a) The regulations of this subpart apply to recyclable materials that are reclaimed to recover economically significant amounts of gold, silver, platinum, paladium, irridium, 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

(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, 270 and 124 of this chapter.

[50 FR 666, Jan. 4, 1985, as amended at 61 FR 16315, Apr. 12, 1996]

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.

If your batteries * * *	And if you * * *	Then you * * *	And you * * *
(1) Will be reclaimed through regeneration (such as by electrolyte replacement).		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.	are subject to 40 CFR parts 261 and § 262.11 of this chapter.
(2) Will be reclaimed other than through regeneration.	generate, collect, and/or transport these batteries.	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.	are subject to 40 CFR parts 261 and § 262.11, and applicable provisions under part 268.
(3) Will be reclaimed other than through regeneration.	store these batteries but you aren't the reclaimer.	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.	are subject to 40 CFR parts 261, § 262.11, and applicable provisions under part 268.
(4) Will be reclaimed other than through regeneration.	store these batteries before you reclaim them.	must comply with 40 CFR 266.80(b) and as appropriate other regulatory provisions described in 266.80(b).	are subject to 40 CFR parts 261, § 262.11, and applicable provisions under part 268.
(5) Will be reclaimed other than through regeneration.	don't store these batteries before you reclaim them.	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.	are subject to 40 CFR parts 261, § 262.11, and applicable provisions under part 268.

(b) If I store spent lead-acid batteries before I reclaim them but not through regeneration, which requirements apply? The requirements of paragraph (b) of this section apply to you if you store spent lead-acid batteries before you reclaim them, but you don't reclaim them through regeneration. The requirements are slightly different depending on your RCRA permit status.

(1) For Interim Status Facilities, you must comply with:

(i) Notification requirements under section 3010 of RCRA.

(ii) All applicable provisions in subpart A of part 265 of this chapter.

(iii) All applicable provisions in subpart B of part 265 of this chapter except § 265.13 (waste analysis).

(iv) All applicable provisions in subparts C and D of part 265 of this chapter.

(v) All applicable provisions in subpart E of part 265 of this chapter except §§ 265.71 and 265.72 (dealing with the use of the manifest and manifest discrepancies).

(vi) All applicable provisions in subparts F through L of part 265 of this chapter.

(vii) All applicable provisions in parts 270 and 124 of this chapter.

(2) For Permitted Facilities:

(i) Notification requirements under section 3010 of RCRA.

(ii) All applicable provisions in subpart A of part 264 of this chapter.

(iii) All applicable provisions in subpart B of part 264 of this chapter (but not § 264.13 (waste analysis).

(iv) All applicable provisions in subparts C and D of part 264 of this chapter.

(v) All applicable provisions in subpart E of part 264 of this chapter (but not § 264.71 or § 264.72 (dealing with the use of the manifest and manifest discrepancies).

(vi) All applicable provisions in subparts F through L of part 264 of this chapter.

(vii) All applicable provisions in parts 270 and 124 of this chapter.

[63 FR 71229, Dec. 24, 1998]

Subpart H—Hazardous Waste Burned in Boilers and Industrial Furnaces

SOURCE: 56 FR 7208, Feb. 21, 1991, unless otherwise noted.

§ 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 paragraph (b)(2) of this section, the standards of this part no longer apply when an affected source 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(b) 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(l);

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

(iv) The standards for regulation of residues of § 266.212; and

(v) The applicable requirements of subparts A through H, BB and CC of parts 264 and 265 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 under procedures specified by Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW–846, incorporated by reference in § 260.11 of this chapter or alternative methods that meet or exceed the SW–846 method performance capabilities. If SW–846 does not prescribe a method for a particular determination, the owner or operator shall use the best available method; 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 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)(iii) 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)(iii) 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 IX 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, paladium, irridium, 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 is burned for recovery of economically significant amounts of precious metal using procedures specified by Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW–846, incorporated by reference in § 260.11 of this chapter or alternative methods that meet or exceed the SW–846 method performance capabilities. If SW–846 does not prescribe a method for a particular determination, the owner or operator shall use the best available method; 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 and 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; 56 FR 32688, July 17, 1991, as amended at 56 FR 42513, Aug. 27, 1991; 56 FR 43877, Sept. 5, 1991; 57 FR 27888, June 22, 1992; 57 FR 38564, Aug. 25, 1992; 57 FR 41612, Sept. 10, 1992; 59 FR 38545, July 28, 1994; 59 FR 48042, Sept. 19, 1994; 63 FR 42186, Aug. 6, 1998; 64 FR 53075, Sept. 30, 1999; 67 FR 6816, Feb. 13, 2002; 67 FR 6996, Feb. 14, 2002]

§ 266.101 Management prior to burning.

(a) *Generators*. Generators of hazardous waste that is burned in a boiler or industrial furnace are subject to part 262 of this chapter.

(b) *Transporters*. Transporters of hazardous waste that is burned in a boiler or industrial furnace are subject to part 263 of this chapter.

(c) *Storage and treatment facilities*. (1) Owners and operators of facilities that store or treat hazardous waste that is burned in a boiler or industrial furnace are subject to the applicable provisions of parts 264, 265, and 270 of this chapter, except as provided by paragraph (c)(2) of this section. These standards apply to storage and treatment by the burner as well as to storage and treatment facilities operated by intermediaries (processors, blenders, distributors, etc.) between the generator and the burner.

(2) Owners and operators of facilities that burn, in an onsite boiler or industrial furnace exempt from regulation under the small quantity burner provisions of § 266.108, hazardous waste that they generate are exempt from the regulations of parts 264, 265, and 270 of this chapter applicable to storage units for those storage units that store mixtures of hazardous waste and the primary fuel to the boiler or industrial furnace in tanks that feed the fuel mixture directly to the burner. Storage of hazardous waste prior to mixing with the primary fuel is subject to regulation as prescribed in paragraph (c)(1) of this section.

[56 FR 7208, Feb. 21, 1991, as amended at 57 FR 38564, Aug. 25, 1992; 64 FR 53075, Sept. 30, 1999]

§ 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 (Corrective Action), §§ 264.90 and 264.101;

(vii) In subpart G (Closure and postclosure), §§ 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 analytical procedures prescribed by Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (incorporated by reference, see § 260.11 of this chapter). Alternative methods that meet or exceed the method performance capabilities of SW–846 methods may be used. If SW–846 does not prescribe a method for a particular determination, the owner or operator shall use the best available method. 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 of §§ 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*—(i) *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 § 270.66 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 including any air pollution control system or operating procedures; and

(E) Such other operating requirements as are necessary to ensure that the particulate standard in § 266.111(b) 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 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 chorline for the hazardous waste, other fuels, and industrial furnace feestocks;

(ii) For conformance with the Tier II HCl and Cl_2 emission rate screening limits under § 266.107(b)(2) and the Tier III HCl and Cl_2 controls under § 266.107(c), the permit will specify the following operating requirements:

(A) Maximum emission rate for HCl and for Cl_2 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 Cl_2 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 preceding clock hour; and

(C) The permit limit for the feed rate of each metal shall be established 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/Cl_2, 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.

(8) *Monitoring and Inspections.* (i) The owner or operator must monitor and 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, values, 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 keep in the operating record of the facility all information and data required by this section until closure of the facility.

(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.

[56 FR 7208, Feb. 21, 1991; 56 FR 32688, July 17, 1991, as amended at 56 FR 42512, 42514, Aug. 27, 1991]

§ 266.103 Interim status standards for burners.

(a) *Purpose, scope, applicability*—(1) *General.* (i) The purpose of this section is to establish minimum national standards for owners and operators of ''existing'' boilers and industrial furnaces that burn hazardous waste where such standards define the acceptable management of hazardous waste during the period of interim status. The standards of this section apply to owners

and operators of existing facilities until either a permit is issued under § 266.102(d) or until closure responsibilities identified in this section are fulfilled.

(ii) *Existing or in existence* means a boiler or industrial furnace that on or before August 21, 1991 is either in operation burning or processing hazardous waste or for which construction (including the ancillary facilities to burn or to process the hazardous waste) has commenced. A facility has commenced construction if the owner or operator has obtained the Federal, State, and local approvals or permits necessary to begin physical construction; and either:

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

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

(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 265.147–265.151, 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)(ii) 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.

(7) *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.

(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 Cl_2 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 Cl_2:

(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 Cl_2 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 emissions 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 Cl_2 (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 Cl_2, and the following information to support such determinations:

(A) The estimated air pollution control system (APCS) removal efficiency for particulate matter, HCl, Cl_2, 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, Cl_2, 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(ii);

(*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 meterological 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 Cl_2, 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)(9) 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 a 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 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 (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 Cl_2;

(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;

(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 Ageny 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 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) and the total chlorine and chloride feed rate screening limits under § 266.107(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) 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 feedsteams;

(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) or (e));

(viii) Maximum flue gas temperature entering a particulate matter control device (unless complying with 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 Tier I or Adjusted Tier I metals feed rate screening limits under § 266.106(b)(1) or (e)):

(A) Minimum liquid to flue gas ration;

(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));

(xi) 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;

(xii) 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;

(xiii) For systems using fabric filters (baghouses), the minimum pressure drop (unless complying with the Tier I or Adjusted Tier I metal 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)).

(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;

(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.

(3) *Compliance testing*—(i) *General.* Compliance testing must be conducted under conditions for which the owner or operator has submitted a certification of precompliance under paragraph (b) of this section and under conditions established in the notification of compliance testing required by paragraph (c)(2) of this section. The owner or operator may seek approval on a case-by-case basis to use compliance test data from one unit in lieu of testing a similar onsite unit. To support the request, the owner or operator must provide a comparison of the hazardous waste burned and other feedstreams, and the design, operation, and maintenance of both the tested unit and the similar unit. The Director shall provide a written approval to use compliance test data in lieu of testing 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 compliance with the metals standards to establish limits on the operating parameters of paragraph (c)(1) of this section only after 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/Cl_2, 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:

(i) 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; and

(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, Cl_2, and CO)

(B) Summary of test results for each run and for each 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 equivalency factor;

(*6*) Time-weighted average particulate matter emissions for each run and for the test;

(*7*) Time-weighted average HCl and Cl_2 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 a 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 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 (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:

(i) When complying with the requirements of paragraph (c)(3)(ii)(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)(ii)(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:

(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:

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

(*i*) 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

(*ii*) 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/Cl_2.

(*2*) If an extension is granted, the Director shall, as a condition of the extension, require the facility to operate under flue gas concentration limits on CO and HC that, based on available information, including information in the part B permit application, are baseline CO and HC levels as defined by § 266.104(f)(1).

(8) *Revised certification of compliance.* The owner or operator may submit at any time a revised certification of compliance (recertification of compliance) under the following procedures:

(i) Prior to submittal of a revised certification of compliance, hazardous waste may not be burned for more than a total of 720 hours under operating conditions that exceed those established under a current certification of compliance, and such burning may be conducted only for purposes of determining whether the facility can operate under revised conditions and continue to meet the applicable emissions standards of §§ 266.104, 266.105, 266.106, and 266.107;

(ii) At least 30 days prior to first burning hazardous waste under operating conditions that exceed those established under a current certification of compliance, the owner or operator shall notify the Director and submit the following information:

(A) EPA facility ID number, and facility name, contact person, telephone number, and address;

(B) Operating conditions that the owner or operator is seeking to revise

and description of the changes in facility design or operation that prompted the need to seek to revise the operating conditions;

(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 three 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:

(1) To minimize emissions of organic compounds, the minimum combustion chamber temperature (or the indicator of combustion chamber temperature) that occurred during the compliance test must be maintained while hazardous waste or hazardous waste residues remain in the combustion chamber, with the minimum temperature during the compliance test defined as either:

(i) If compliance with the combustion chamber temperature limit is based on a 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 demonstration shall be included in the operating record.

(i) *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 specified in the certification of compliance.

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

(i) Feed rates and composition of hazardous waste, other fuels, and industrial furnace feed stocks, and feed rates of ash, metals, and total chloride and chlorine as necessary to ensure conformance with the certification of precompliance or certification of compliance;

(ii) Carbon monoxide (CO), oxygen, and if applicable, hydrocarbons (HC), 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 the operating limits specified in the certification of compliance. CO, HC, and oxygen monitors must be installed, operated, and maintained in accordance with methods specified in appendix IX of this part.

(iii) Upon the request of the Director, sampling and analysis of the hazardous waste (and other fuels and industrial furnace feed stocks as appropriate) and the stack gas emissions must be conducted to verify that the operating conditions established in the certification of precompliance or certification of compliance achieve the applicable standards of §§ 266.104, 266.105, 266.106, and 266.107.

(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 until closure of the boiler or industrial furnace unit.

(l) *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.

[56 FR 7208, Feb. 21, 1991; 56 FR 32689, July 17, 1991, as amended at 56 FR 42512, 42514, Aug. 27, 1991; 57 FR 38564, Aug. 25, 1992; 57 FR 45000, Sept. 30, 1992; 60 FR 33913, June 29, 1995]

§ 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:

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

where:

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

W_{out}= 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 conformance 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 Incinerators, 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 onsite; 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.

(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.

[56 FR 7208, Feb. 21, 1991; 56 FR 32689, July 17, 1991, as amended at 57 FR 38565, Aug. 25, 1992; 58 FR 38883, July 20, 1993; 60 FR 33914, June 29, 1995; 62 FR 32463, June 13, 1997]

§ 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:

$$Pc = Pm \times 14/(E - Y)$$

Where:

Pc is the corrected concentration of the pollutant in the stack gas, Pm 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.

[56 FR 7208, Feb. 21, 1991, as amended at 64 FR 53075, Sept. 30, 1999]

§ 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 using analytical procedures specified in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW–846), incorporated by reference in § 260.11 of this chapter.

(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)(7) 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.

(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=actual feed rate to the device for metal ''i''
FRSL=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)(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.

(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 (°K).

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 by 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) The worst-case stack is determined by procedures provided in paragraph (b)(6) of this section.

(iii) 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 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 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 metals 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.

[56 FR 7208, Feb. 21, 1991; 56 FR 32689, July 17, 1991; 57 FR 38565, Aug. 25, 1992; 58 FR 38883, July 20, 1993; 62 FR 32463, June 13, 1997]

§ 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_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_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_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_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_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_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_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_2.

(d) *Averaging periods*. The HCl and Cl_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 chloride and chlorine is limited to the Tier I Screening Limits. Under Tier II and Tier III, the feed rate of total chloride and chlorine 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_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_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.

[56 FR 7208, Feb. 21, 1991; 56 FR 32690, July 17, 1991; 57 FR 38566, Aug. 25, 1992; 62 FR 32463, June 13, 1997]

§ 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):

EXEMPT QUANTITIES FOR SMALL QUANTITY BURNER EXEMPTION

Terrain-adjusted effective stack height of device (meters)	Allowable hazardous waste burning rate (gallons/month)	Terrain-adjusted effective stack height of device (meters)	Allowable hazardous waste burning rate (gallons/month)
0 to 3.9	0	40.0 to 44.9	210
4.0 to 5.9	13	45.0 to 49.9	260
6.0 to 7.9	18	50.0 to 54.9	330
8.0 to 9.9	27	55.0 to 59.9	400
10.0 to 11.9	40	60.0 to 64.9	490
12.0 to 13.9	48	65.0 to 69.9	610
14.0 to 15.9	59	70.0 to 74.9	680
16.0 to 17.9	69	75.0 to 79.9	760
18.0 to 19.9	76	80.0 to 84.9	850
20.0 to 21.9	84	85.0 to 89.9	960
22.0 to 23.9	93	90.0 to 94.9	1,100
24.0 to 25.9	100	95.0 to 99.9	1,200
26.0 to 27.9	110	100.0 to 104.9	1,300
28.0 to 29.9	130	105.0 to 109.9	1,500
30.0 to 34.9	140	110.0 to 114.9	1,700
35.0 to 39.9	170	115.0 or greater	1,900

(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;

Actual Quantity Burned means the waste quantity burned per month in device ''i'';

Allowable Quantity Burned 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; and

(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 the facility for at least three years sufficient records documenting compliance with the hazardous waste quantity, firing rate, and heating value limits of this section. At a minimum, these records must indicate the quantity of hazardous waste and other fuel burned in each unit per calendar month, and the heating value of the hazardous waste.

[56 FR 7208, Feb. 21, 1991; 56 FR 32690, July 17, 1991, as amended at 56 FR 42515, Aug. 27, 1991; 57 FR 38566, Aug. 25, 1992]

§ 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.

(1) 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 as-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 constitutent 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 constitutent 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 particular 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) The owner or operator complies with the Tier I or adjusted Tier I metals feed rate screening limits provided by § 266.106 (b) or (e).

[56 FR 7208, Feb. 21, 1991; 56 FR 32690, July 17, 1991, as amended at 56 FR 42515, Aug. 27, 1991]

§ 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.

[56 FR 7208, Feb. 21, 1991; 56 FR 32690, July 17, 1991, as amended at 56 FR 42515, Aug. 27, 1991]

§ 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 (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.

(ii) 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.

(iii) 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).

[50 FR 666, Jan. 4, 1985, as amended at 56 FR 42515, Aug. 27, 1991]

§ 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. Sampling and analyses shall be in conformance with procedures prescribed in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,* incorporated by reference in § 260.11(a) of this chapter. For polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans, 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 (using analytical procedures prescribed in SW–846), 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 (using analytical procedures contained in SW–846, or other appropriate methods), 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 paragraph) 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 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: 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.

[50 FR 666, Jan. 4, 1985, as amended at 56 FR 42516, Aug. 27, 1991; 57 FR 38566, Aug. 25, 1992; 58 FR 59602, Nov. 9, 1993; 64 FR 53076, Sept. 30, 1999]

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 270.2.

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.

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

Inactive range means a military range that is not currently being used, but that is still under military control and considered by the military to be a potential range area, and that has not been put to a new use that is incompatible with range activities.

Military means the Department of Defense (DOD), the Armed Services, Coast Guard, National Guard, Department of Energy (DOE), or other parties under contract or acting as an agent for the foregoing, who handle military munitions.

Military munitions is as defined in 40 CFR 260.10.

Military range means designated land and water areas set aside, managed, and used to conduct research on, develop, test, and evaluate military munitions and explosives, other ordnance, or weapon systems, or to train military personnel in their use and handling. Ranges include firing lines and positions, maneuver areas, firing lanes, test pads, detonation pads, impact areas, and buffer zones with restricted access and exclusionary areas.

Unexploded ordnance (UXO) means military munitions that have been primed, fused, armed, or otherwise prepared for action, and have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installation, personnel, or material and remain unexploded either by malfunction, design, or any other cause.

§ 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 transport 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.

(3) The exemption in paragraph (a)(1) of this section from regulation as hazardous waste shall apply only to the transportation of non-chemical waste military munitions. It does not affect the regulatory status of waste military munitions as hazardous wastes with regard to storage, treatment or disposal.

(4) 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) *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 transport of military munitions referenced in paragraph (a)(1)(ii) of this section are Government Bill of Lading (GBL) (GSA Standard Form 1109), requisition tracking form DD Form 1348, the Signature and Talley Record (DD Form 1907), Special Instructions for Motor Vehicle Drivers (DD Form 836), and the Motor Vehicle Inspection Report (DD Form 626) in effect on November 8, 1995, except as provided in the following sentence. Any amendments to the Department of Defense shipping controls shall become effective for purposes of paragraph (a)(1) of this section on the date the Department of Defense publishes notice in the FEDERAL REGISTER that the shipping controls referenced in paragraph (a)(1)(ii) of this section have been amended.

§ 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 from regulation as hazardous waste shall apply only to the storage of non-chemical waste military munitions. It does not affect the regulatory status of waste military munitions as hazardous wastes with regard to transportation, treatment or disposal.

(3) 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 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 conditional exemption is appropriate based on factors such as the owner's or operator'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 conditional 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 he/she finds that reinstatement is inappropriate based on factors such as the owner's or operator'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 conditional exemption under paragraph (a)(1) of this section, the Director may specify additional conditions as are necessary to ensure and document proper storage to protect human health and the environment.

(d) Waste chemical munitions. (1) Waste military munitions that are chemical agents or chemical munitions 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 shall be subject to the applicable regulatory requirements of RCRA subtitle C.

(2) Waste military munitions that are chemical agents or chemical munitions and that exhibit a hazardous waste characteristic or are listed as hazardous waste under 40 CFR Part 261, are not subject to the storage prohibition in RCRA section 3004(j), codified at 40 CFR 268.50.

(e) Amendments to DDESB storage standards. The DDESB storage standards applicable to waste military munitions, referenced in paragraph (a)(1)(iii) of this section, are DOD 6055.9–STD (''DOD Ammunition and Explosive Safety Standards''), in effect on November 8, 1995, except as provided in the following sentence. Any amendments to the DDESB storage standards shall become effective for purposes of paragraph (a)(1) of this section on the date the Department of Defense publishes notice in the FEDERAL REGISTER that the DDESB standards referenced in paragraph (a)(1) of this section have been amended.

§ 266.206 Standards applicable to the treatment and disposal of waste military munitions.

The treatment and disposal of hazardous waste military munitions are subject to the applicable permitting, procedural, and technical standards in 40 CFR Parts 260 through 270.

Subpart N—Conditional Exemption for Low-Level Mixed Waste Storage and Disposal

SOURCE: 66 FR 27262, May 16, 2001, unless otherwise noted.

TERMS

§ 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, and is allowed by State NARM regulations to be disposed of at a low-level radioactive waste disposal facility (LLRWDF) licensed in accordance with 10 CFR part 61 or NRC Agreement State equivalent regulations.

Exempted waste means a waste that meets the eligibility criteria in 266.225 and meets all of the conditions in § 266.230, or meets the eligibility criteria in 40 CFR 266.310 and complies with all the conditions in § 266.315. Such waste is conditionally exempted from the regulatory definition of hazardous waste described in 40 CFR 261.3.

Hazardous Waste means any material which is defined to be hazardous waste in accordance with 40 CFR 261.3, ''Definition of Hazardous Waste.''

Land Disposal Restriction (LDR) Treatment Standards means treatment standards, under 40 CFR part 268, that a RCRA hazardous waste must meet before it can be disposed of in a RCRA hazardous waste land disposal unit.

License means a license issued by the Nuclear Regulatory Commission, or NRC Agreement State, to users that manage radionuclides regulated by NRC, or NRC Agreement States, under authority of the Atomic Energy Act of 1954, as amended.

Low-Level Mixed Waste (LLMW) is a waste that contains both low-level radioactive waste and RCRA hazardous waste.

Low-Level Radioactive Waste (LLW) is a radioactive waste which contains source, special nuclear, or byproduct material, and which is not classified as high-level radioactive waste, transuranic waste, spent nuclear fuel, or byproduct material as defined in section 11e.(2) of the Atomic Energy Act. (See also NRC definition of ''waste'' at 10 CFR 61.2)

Mixed Waste means a waste that contains both RCRA hazardous waste and source, special nuclear, or byproduct material subject to the Atomic Energy Act of 1954, as amended.

Naturally Occurring and/or Accelerator-produced Radioactive Material (NARM) means radioactive materials that:

(1) Are naturally occurring and are not source, special nuclear, or byproduct materials (as defined by the AEA) or

(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, treater, 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 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 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 incidents 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.

(b) 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.

RECORDKEEPING

§ 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.

(c) You have completed the packaging and preparation for shipment requirements for your waste according to NRC Packaging and Transportation regulations found under 10 CFR part 71 (or NRC Agreement State equivalent regulations); and you have prepared a manifest for your waste according to NRC manifest regulations found under 10 CFR part 20 (or NRC Agreement State equivalent regulations), and

(d) You have placed your waste on a transportation vehicle destined for a LLRWDF licensed by NRC or an NRC Agreement State.

§ 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).

LOSS OF TRANSPORTATION AND DISPOSAL CONDITIONAL EXEMPTION

§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) 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 repeated noncompliance with any requirement(s) of subpart N of this part.

§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.

Subpart O—Standards Applicable to U.S. Filter Recovery Services XL Waste and U.S. Filter Recovery Services, Inc.

SOURCE: 66 FR 28085, May 22, 2001, unless otherwise noted.

§ 266.400 Purpose, scope, and applicability.

The purpose of this subpart is to implement the U.S. Filter Recovery Services (USFRS) eXcellence in Leadership (XL) Project. Any person who is a USFRS XL waste generator or transporter must handle the USFRS XL waste in accordance with the requirements contained within this subpart. The standards and requirements of this subpart also apply to USFRS and its facility located at 2430 Rose Place, Roseville, Minnesota. These requirements are imposed on USFRS in addition to any requirements contained in its RCRA hazardous waste permit or other applicable state or federal law. USFRS XL waste generators and transporters are not required to comply with the requirements of 40 CFR 261.5, parts 262 through 266 (except this subpart O), parts 268, 270, 273 and 279 provided they manage USFRS XL waste in compliance with the requirements of this subpart O.

§ 266.401 Definitions.

County Environmental Agencies or County Agencies means the counties of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott or Washington in Minnesota.

USFRS means U.S. Filter Recovery Services, Inc. whose principal place of business for the purposes of these rules is 2430 Rose Place, Roseville, Minnesota.

USFRS XL Waste means one or more USFRS used water treatment resin canisters and their contents, any associated USFRS pre- or post-resin filters and their containers and their contents from a USFRS XL waste generator located within the State of Minnesota. USFRS XL waste includes the ion exchange resins, the associated pre- and post-resin filters, wastes contained on or within the ion exchange resins and filters and any other wastes contained within the water treatment resin canisters and filter containers. USFRS XL waste also includes spills of XL waste which are handled in accordance with the requirements in this subpart. This definition does not include wastes that were generated prior to the date a generator is added to this USFRS XL Project. USFRS XL waste shall be identified by the waste code XL001.

USFRS XL Waste Application Form means the form approved by EPA and Minnesota Pollution Control Agency (MPCA) as part of the USFRS XL Waste Project or subsequently modified by USFRS and approved by EPA and MPCA and used for characterization of the chemical constituents of a person's USFRS XL waste. The USFRS XL Waste Application Form shall include all attachments by USFRS or the applicant, including but not limited to, the USFRS Site Engineering Form, Systems Engineering Form and any waste analysis.

USFRS XL Waste Approved Customer means only those persons located in Minnesota who have properly identified their wastes and processes on the USFRS XL waste application form; have not been excluded by EPA, MPCA or the County Agencies from participation in the USFRS XL waste project; have signed the USFRS XL waste Final Project Agreement (FPA); have certified that they have read and understand the USFRS XL waste training module; and have not generated USFRS XL wastes.

USFRS XL waste approved transporter means a transporter located within the State of Minnesota who has a satisfactory safety rating from the United States Department of Transportation (USDOT) in the last year; has not been excluded by EPA, MPCA or the County Agencies from participation in the

USFRS XL waste project; has signed the USFRS XL waste FPA; and has signed a certification that it has been trained by USFRS on the proper handling of USFRS XL wastes and understands its responsibilities under this subpart.

USFRS XL Waste Facility or USFRS Facility means the U.S. Filter Recovery Service, Inc. operations located at 2430 Rose Place, Roseville, Minnesota.

USFRS XL Waste Final Project Agreement (FPA) means the agreement signed by USFRS, EPA, MPCA, the counties of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington in Minnesota, Pioneer Tank Lines and USFRS XL waste customers, generators and transporters. The FPA may be modified to add or delete participants, subject to the approval of EPA and MPCA. The FPA was signed by EPA, USFRS and MPCA on September 21, 2000.

USFRS XL Waste Generator means a USFRS XL waste approved customer who generates or generated USFRS XL waste.

USFRS XL Waste Project, USFRS XL Project or XL Project means the program identified in the Final Project Agreement and this part for the generation, transportation and subsequent treatment, storage and disposal of USFRS XL waste.

USFRS XL waste training module means the recorded training program approved by EPA and MPCA as part of the USFRS XL Waste Project or subsequently modified by USFRS and approved by EPA and MPCA and developed by USFRS for the purpose of informing USFRS XL waste approved customers, generators and transporters of the special requirements imposed on them by this part and the proper method of handling USFRS XL wastes.

USFRS XL Waste Transportation Tracking Document means the Transportation Tracking Document developed by USFRS which was approved by EPA and the MPCA as part of the USFRS XL Waste Project or subsequently modified by USFRS and approved by EPA and MPCA; and used when USFRS XL waste is transported off-site from a generator.

USFRS XL Waste Transporter means USFRS or a USFRS XL waste approved transporter who transports USFRS XL waste.

§ 266.402 Procedures for adding persons as generators to EPA's USFRS XL Project.

(a) Any person who wishes to participate in the USFRS XL Project as a generator must obtain the approval of the EPA and the Minnesota Pollution Control Agency (MPCA). The approval of the County Agency is also required if that person will generate USFRS XL waste at a location in the counties of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott or Washington, Minnesota. The procedures identified in this subpart are to be followed to obtain EPA approval to add a person to the federal USFRS XL Project. USFRS and a proposed generator must also comply with the procedures identified by the MPCA, and appropriate County Agencies. A person may not be added to the federal USFRS XL Project unless it has the approval of EPA, MPCA and as appropriate the County Agencies.

(b) USFRS is the only entity which may propose to add a person as a generator to the USFRS XL Project. USFRS may propose to EPA to add persons to the USFRS XL Project at any time provided, USFRS complies with the requirements of this section. Prior to being considered a USFRS XL waste generator, a person must first be approved as a USFRS XL waste approved customer. Only a USFRS XL waste approved customer may become a USFRS XL waste generator. A person becomes a USFRS XL waste generator after it first generates or causes USFRS XL waste to be regulated.

(c) USFRS will conduct a preliminary evaluation of any person it wishes to propose to EPA to add to the USFRS XL Project as a generator. USFRS will complete this preliminary evaluation prior to proposing to EPA to add such a person to the USFRS XL Project. The preliminary evaluation will consist of the following activities: USFRS will require any person who wishes to become a USFRS XL waste generator to complete and sign the USFRS XL Waste Application Form; USFRS will complete the waste characterization required by 40 CFR 266.406(b); USFRS

will evaluate the person's storage area for the USFRS XL waste to determine whether it meets the standards of this subpart O; and USFRS will provide the person with a copy of the USFRS XL waste MSDS, FPA and training module.

(d) After successfully completing the activities identified in paragraph (c) of this section, USFRS will provide EPA with the name and such other information as the Agency may require to determine if a person may participate in the USFRS XL Project as a generator. USFRS will propose for inclusion into the USFRS XL Project only those person(s) whose wastes are compatible with the ion exchange resin process and canisters and whose storage area meets the standards in this subpart O. EPA's approval shall be effective within twenty one days of EPA's receipt of USFRS's written notice proposing to add a person to the USFRS XL Project unless EPA, within that time period, provides USFRS with a written notice rejecting such person.

(e) After securing the approval of EPA, MPCA and the County Agencies, USFRS shall notify the person it proposed to add to the USFRS XL Project in writing that it is approved for participation in the USFRS XL Project. USFRS will assign to that person a unique client number and waste profile number for each waste stream approved for this XL project. USFRS will obtain from that person a copy of the signed USFRS XL waste FPA and a certification that it has read and agrees to follow the USFRS XL waste training module. USFRS shall also ensure that as part of this certification the approved customer identifies its contact person as required by 40 CFR 266.408(h). Upon request by EPA, USFRS will provide EPA with a copy of the signed documents or other documents it requests.

(f) USFRS will accept USFRS XL waste only from those persons who have received the approval of EPA, MPCA and, as appropriate, the County Agencies and who have signed the USFRS XL Project FPA and the certification identified in paragraph (e) of this section. A person's participation in this USFRS XL Project is effective after EPA, MPCA and, as appropriate, the County Agency approve of them and on the date that USFRS receives the signed USFRS XL waste FPA and certification. At that time the person is a USFRS XL waste approved customer. A USFRS XL waste approved customer becomes a USFRS XL waste generator when it first generates or causes USFRS XL wastes to be regulated. A USFRS XL waste generator must handle all USFRS XL wastes generated after the effective date of it being added to the USFRS XL Project in accordance with the provisions of this subpart O. USFRS XL waste that is generated prior to this date is not subject to this subpart O and it must be handled according to the appropriate hazardous waste characterization for that waste, (e.g.. F006 and any other applicable waste code).

(g) USFRS will require a USFRS XL waste approved customer and generator to update the USFRS XL waste application form prior to it adding to or modifying the waste streams or processes it identified on its initial USFRS XL waste application form. USFRS will notify EPA, MPCA and as appropriate, the County Agencies whenever a customer or generator notifies USFRS that it has or will add or modify waste streams or processes. EPA will notify USFRS if any further EPA approvals are required.

§ 266.403 Procedures for adding persons as transporters to EPA's USFRS XL Project.

(a) Any person who wishes to participate in the USFRS XL Project as a transporter must obtain the approval of the EPA and the MPCA. The approval of the County Agencies is also required if that person's principal place of business is located in the counties of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott or Washington. The procedures identified in this subpart are to be followed to obtain EPA approval to add a person as a transporter to the federal USFRS XL Project. USFRS and a proposed transporter must also comply with the procedures identified by the MPCA, and as appropriate the County Agencies. A person may not be added to the federal USFRS XL Project unless it has received the approval of

EPA, MPCA and as appropriate the County Agencies.

(b) USFRS is the only entity which may propose to EPA to add a person as a transporter to the USFRS XL Project.

(c) USFRS and Pioneer Tank Lines are approved USFRS XL waste transporters. USFRS may propose to EPA to add other persons as USFRS XL waste transporters provided USFRS complies with the requirements of this section. USFRS will conduct a preliminary evaluation of any person who it proposes to add as a USFRS XL waste transporter. As part of that preliminary evaluation USFRS will ascertain whether the transporter has a valid EPA identification number, a valid Minnesota hazardous materials registration (''Minnesota registration'') and a satisfactory safety rating from USDOT within the last year.

(d) After successfully completing the activities identified in paragraph (c) in this section USFRS will provide EPA with the name of the transporter, the unique USFRS client identification number for the transporter, the results of its preliminary evaluation identified in paragraph (c) and other information as EPA may require to determine if that person may participate in the USFRS XL Project. USFRS will propose for inclusion into the USFRS XL Project only those person(s) who have a satisfactory safety rating from USDOT. EPA's approval shall be effective within twenty one days of its receipt of USFRS's written notice proposing to add a person to the USFRS XL Project unless EPA, within that time period, provides USFRS with a written notice rejecting such person.

(e) After receiving the approval of EPA, MPCA and as appropriate the County Agencies USFRS shall notify the person in writing that it is approved for participation in the USFRS XL Project. USFRS will obtain from that person a copy of the signed USFRS XL waste FPA and a certification that it has been trained by USFRS on the proper handling of USFRS XL wastes and understands its responsibilities under this subpart O.

(f) USFRS will allow only USFRS XL approved transporters to transport USFRS XL wastes. A person's participation in this USFRS XL Project is effective after it receives the approval of EPA, MPCA and the County Agencies, as appropriate, and on the date that USFRS receives the signed USFRS XL waste FPA and certification. A USFRS XL waste approved transporter becomes a USFRS XL waste transporter when it first transports or accepts for transport USFRS XL waste.

(g) USFRS will require a USFRS XL waste approved transporter or USFRS XL waste transporter to notify it of any change in its rating from USDOT, its Minnesota registration or its EPA identification number. USFRS will notify EPA, MPCA and, the appropriate County Agencies in writing of any such changes. EPA will notify USFRS in writing of any additional information or steps that may be required as a result of such changes.

§ 266.404 USFRS requirements related to the development, use and content of USFRS XL Waste Training Module.

(a) USFRS will develop, implement and maintain a USFRS XL Waste Training Module. USFRS will provide this training module to every person who applies for participation in the USFRS XL Project. USFRS may use any recorded communication media that is appropriate for communicating the requirements of this subpart (e.g., printed brochures, videos, etc.).

(b) The Training Module will, at a minimum, identify the hazards presented by the USFRS XL waste: for generators, explain how to handle the installation and replacement of the ion exchange resin canisters and the pre- and post-resin filters; and explain the requirements imposed on the generator or transporter pursuant to this part.

(c) USFRS shall submit this training module to EPA for approval prior to accepting the first shipment of USFRS XL wastes.

§ 266.405 USFRS requirements relative to the development, use and content of USFRS XL Waste MSDS.

USFRS will develop a USFRS XL waste material safety data sheet (MSDS) or similar document which meets the requirements of this subpart. USFRS will provide a copy of the

USFRS XL waste MSDS to every person who applies for participation in the USFRS XL Project. USFRS will ensure that the USFRS XL waste MSDS prominently instructs individuals in the proper handling and emergency response procedures for spills or leaks of the USFRS XL wastes.

§ 266.406 Waste characterization.

(a) *Submission of USFRS XL Waste Application Form by USFRS XL Waste Generator.* A person who proposes to participate in the USFRS XL Project as a generator of USFRS XL wastes must properly identify the wastes and processes which contribute to the production of the USFRS XL waste at its company. For the purposes of this subpart O it shall identify only those waste streams which meet the F006 listing and shall identify them on the USFRS XL waste application form. It shall complete and submit to USFRS the USFRS XL Waste Application Form. It shall update and submit to USFRS the XL Waste Application prior to changing any process which contributes to the USFRS XL waste it generates.

(b) *USFRS Waste Profile Analyses.* For any person which USFRS proposes to add to the USFRS XL Project as a generator, USFRS will perform a waste profile analysis of the waste stream(s) and process(es) which will contribute to the USFRS XL waste at that company. USFRS will update such analyses whenever a USFRS XL waste generator notifies USFRS of a change or modification to its waste stream or process contributing to its USFRS XL waste. USFRS will include in the waste profile analysis a complete chemical analysis of the waste stream(s) and a determination of its compatibility with the ion exchange resin process, canisters and filters. USFRS shall complete such analysis in accordance with the testing methods identified in the waste analysis plan contained within its RCRA hazardous waste permit. USFRS shall assign to each generator a unique customer identification number and waste profile number.

§ 266.407 USFRS XL waste identification, handling, and recycling.

(a) USFRS XL waste will be denoted by the hazard waste code XL001 while it is handled by the USFRS XL waste generator or transporter. At the USFRS facility, the USFRS XL waste will be denoted by the waste code(s) it would have had at the generator but for its characterization as USFRS XL waste (i.e., F006 and any other applicable characteristic waste code). USFRS and others who may receive residuals from the USFRS XL waste will handle the USFRS XL waste and residuals according to the wastes code(s) it would have had at the generator (i.e., F006 and the appropriate characteristic hazardous waste code) and not according to the XL001 designation. USFRS shall handle the USFRS XL waste at its facility in accordance with its State issued RCRA hazardous waste permit and any applicable federal requirements.

(b) USFRS may not accept any customers into this Project unless and until it has arranged for recycling of the metals contained in the XL001 wastes it receives. USFRS shall continue to recycle the metals contained in the XL001 waste it receives throughout the duration of the XL Project.

(c) USFRS shall identify a spill response coordinator at its facility. This person shall be responsible for coordinating the proper response to any spill, leaks or emergencies of USFRS XL wastes at the generator or during transport. He will also be responsible for receiving the calls from the generators and transporters required by this subpart O for such spills, leaks or emergencies.

§ 266.408 Accumulation and storage prior to off-site transport.

A USFRS waste generator may store its USFRS XL waste on-site for less than 90 days, provided it complies with the following:

(a) *Condition and use of containers.* Except as provided in paragraph (e) of this section, the USFRS waste generator it will store the USFRS XL waste in the USFRS water treatment resin canisters and filter containers. At the

time it places the resin canister or filter containers in storage it will ensure that the water treatment resin canisters and filter containers are disconnected from any processes and are sealed. It will ensure that the USFRS XL wastes are not mixed with other solid wastes. It will affix to the resin canisters and filter containers a warning statement containing the information presented in paragraph (c) of this section.

(b) *Condition of storage area.* It will store the USFRS XL waste on an impervious surface. The USFRS waste generator will store the USFRS XL waste separately from other wastes or materials and will ensure that there is adequate aisle space to determine the condition of the USFRS XL waste and to notice and respond to any leaks of USFRS XL waste.

(c) *Pre-transport requirements.* It will place the following warning statement prominently on the USFRS XL waste: XL001 wastes–USFRS ion exchange resin process wastes—Federal Law Prohibits Improper Disposal. This is USFRS XL waste from (insert XL waste generator's name). Handle as a hazardous waste and ship only to USFRS located at 2430 Rose Place, Roseville, MN. This waste was placed in this container on (date) and placed in storage at (insert USFRS XL waste generator's name) on (insert date). *If found, contact USFRS and the nearest police, public safety authority, EPA or MPCA. The USFRS telephone number is (insert phone number). USFRS Transportation Tracking Document Number_____ If spilled immediately contain the spill and prevent it from going into any water body; collect the spilled material and place in an appropriately sized polycontainer; contact USFRS and the nearest police, public safety authority, EPA or MPCA.*

(d) *Inspections.* The USFRS waste generator will inspect the condition of the USFRS XL waste weekly while it is in storage at its company. It will maintain a log of these inspections. The log will indicate the date the USFRS XL waste was placed in storage, the condition of the water treatment resin canister and filter containers at that time, the date(s) of the inspection, the person conducting the inspection, and the condition of the water treatment resin canisters and the filter containers and the storage area at the time of the inspection.

(e) *Response to spills or leaks.* The USFRS waste generator will immediately contain and collect any spill or leak of USFRS XL wastes. It will orally notify USFRS, and the duty officer at MPCA (Non-metro: 1–800–422–0798; Metro: 651–649–5451) within 24 hours of discovery of the spill or leak. It will place any spilled or leaked materials in an appropriately sized polycontainer and comply with the requirements of paragraphs (a) through (c) of this section. It will arrange with USFRS for the disposal of that spilled or leaked material with the next shipment of USFRS XL wastes from its company. If allowed by the local POTW it may discharge any leaked or spilled water to its permitted drainage system. Otherwise, such wasters will be sent to USFRS.

(f) *Decontamination of storage area.* The USFRS waste generator will decontaminate all areas, equipment or soils used for or contaminated with USFRS XL waste no later than the dates provided in section §§266.412, 266.414 and 266.415.

(g) *USFRS XL Waste MSDS.* It shall maintain and exhibit in a prominent location the USFRS XL Waste MSDS. It shall provide a copy of the USFRS XL waste MSDS to all local entities responsible for responding to releases of hazardous materials or wastes, (e.g., local police and fire departments, hospitals, etc.). It shall retain documentation of its efforts to comply with this paragraph (g).

(h) *Contact person.* No later than the date that it signs the FPA it will designate to USFRS a person who is responsible for handling its USFRS XL waste and its compliance with this subpart. That person shall complete training for the proper handling of USFRS XL waste and shall certify that he has read and understands the requirements imposed by this subpart O and the USFRS XL waste training module. That person shall also be responsible for responding to spills or leaks at the generator.

(i) *Communication devices.* It shall have an operating communication device (e.g., telephone, alarm, etc.) which

allows the contact person to notify the appropriate state, local and federal officials and local hospitals and company personnel in case of an emergency.

§ 266.409 USFRS XL waste transporter pre-transport requirements.

A USFRS XL waste transporter will ensure that the USFRS XL waste is within an approved container which prominently displays the following warning statement: XL001 wastes—USFRS ion exchange resin process wastes—Federal Law Prohibits Improper Disposal. This is USFRS XL waste from (insert XL waste generator's name). Handle as a hazardous waste and ship only to USFRS located at 2430 Rose Place, Roseville, MN. This waste was placed in this container on (date) and placed in storage at (insert USFRS XL waste generator's name) on (insert date). *If found, contact USFRS and the nearest police, public safety authority, MPCA or EPA. The USFRS telephone number is (insert phone number). USFRS Transportation Tracking Document Number_____. If spilled immediately contain the spill and prevent it from going into any water body; collect the spilled material and place in an appropriately sized polycontainer; contact USFRS and the nearest police, public safety authority, EPA or MPCA.*

§ 266.410 USFRS XL Waste Transport and Transportation Tracking Document.

A USFRS XL Transportation Tracking Document and USFRS XL Waste MSDS will accompany every shipment of USFRS XL waste from a USFRS XL waste generator off-site. Each resin canister and filter container will have the warning statement required by §§ 266.408(c) and 266.409 affixed to it. USFRS, and the USFRS XL waste generator and transporter shall comply with the following requirements:

(a) *USFRS.* USFRS will require each USFRS XL waste generator to contact USFRS to arrange for the transportation of the USFRS XL waste. USFRS will contact and use only USFRS XL waste transporters to transport the USFRS XL waste. USFRS will require that the USFRS XL waste transporter pick up the generator's USFRS XL waste prior to the expiration of the storage time limit provided to the generator pursuant to § 266.408. USFRS will complete and send to the USFRS XL waste generator the USFRS XL waste Transportation Tracking Document and warning statement identified in §§ 266.408(c) and 266.409. USFRS will ensure that the generator receives these documents by the time the transporter arrives at the generator. USFRS will include on the Transportation Tracking Document all information EPA determines is required to comply with this subpart O. USFRS will direct the USFRS XL waste transporter to ship the USFRS XL waste to its facility at 2430 Rose Place, Roseville, Minnesota within 30 days of its pick-up from a USFRS XL waste generator. If a shipment is not received within 30 days, USFRS will contact the transporter to determine the disposition of the load. If USFRS does not receive the shipment within 5 days of its scheduled arrival date, it will notify EPA, MPCA, the USFRS XL generator and as appropriate the County Agencies. USFRS will send a copy of the Transportation Tracking Document to the USFRS XL waste generator within 10 days of USFRS' receipt of the XL001 waste from the transporter.

(b) *USFRS XL waste generators.* A USFRS XL waste generator must contact USFRS for the off-site transport, treatment, storage or disposal of USFRS XL wastes. A USFRS waste generator will use only a USFRS XL waste transporter to transport the USFRS XL waste to the USFRS Roseville, Minnesota facility located at 2430 Rose Place. It must verify the accuracy of the USFRS XL Waste Transportation Tracking Document and warning statement, make any corrections to them that are necessary and sign the Transportation Tracking Document. It must affix the warning statement to each resin canister and filter container and provide a copy of the USFRS XL Waste Transportation Tracking Document and USFRS XL waste MSDS to the USFRS XL waste transporter at the time it provides the transporter with the USFRS XL waste.

(c) *USFRS XL waste transporter.* A USFRS XL waste transporter shall verify the accuracy of the information contained on the USFRS XL Waste

Transportation Tracking Document and on the warning statement. It shall sign and date the USFRS Transportation Tracking Document for each shipment of USFRS XL waste it transports and carry it with each shipment that it carries. It shall carry the USFRS XL waste MSDS with each shipment. It shall pick up each shipment of USFRS XL waste prior to the expiration of the storage time limit provided the generator pursuant to § 266.408. It shall deliver each shipment of USFRS XL waste to the USFRS Roseville, Minnesota facility located at 2430 Rose Place within 30 days of it being picked-up at a USFRS XL waste generator. A USFRS transporter may store USFRS XL waste for no more than 10 days at a transfer facility without being subject to regulation under 40 CFR parts 264, 265, 268 and 270 for the storage of those wastes.

§ 266.411 Releases of USFRS XL waste during transport.

In the event of a release of USFRS XL waste during transportation, a USFRS XL waste transporter must take appropriate immediate action to protect human health and the environment, including preventing the spilled material from entering a water system or a water body. The USFRS XL waste transporter also must comply with the provisions of 40 CFR 263.31. The USFRS XL waste transporter will contact USFRS and the nearest police, public safety authority, EPA or MPCA, provide any emergency responder with a copy of the USFRS XL waste MSDS, handle the spilled material in accordance with the USFRS XL waste MSDS and the direction of any governmental entity charged with emergency response authority and transport any spilled USFRS XL waste and contaminated soils or equipment to the USFRS facility located at 2430 Rose Place, Roseville, Minnesota in a appropriately sized polycontainer.

§ 266.412 USFRS XL waste generator closure.

(a) *Generator responsibilities.* At the time of termination of a USFRS XL generator's participation in the USFRS XL Project, the USFRS XL waste generator will disconnect its process(es) from the water treatment resin canisters and filter containers; implement the alternative treatment or disposal required by § 266.413; arrange for the transport to USFRS of all USFRS XL waste that it has in storage; decontaminate any contamination resulting from the storage or handling of USFRS XL waste; and document its efforts to comply with this closure requirement.

(b) *USFRS responsibilities.* Prior to termination of a USFRS XL waste generator's participation in the USFRS XL Waste Project USFRS will remove all of the USFRS XL waste in the generator's storage area. USFRS will inspect the USFRS XL waste generator to determine if all USFRS XL wastes have been removed and to document the condition of the USFRS XL waste storage area. USFRS will provide a written summary to the customer, EPA, MPCA and as appropriate the County Agencies of its evaluation pursuant to this paragraph (b).

§ 266.413 USFRS XL waste generator requirements to maintain alternate treatment or disposal capacity.

During the period that it is participating in the USFRS XL waste Project, a USFRS XL waste generator shall maintain the ability to legally treat or dispose of its process wastes contributing to the USFRS XL waste by methods other than through transportation and treatment to USFRS' Roseville, Minnesota facility. A USFRS XL waste generator may use this alternative treatment or disposal method only after its participation in this XL Project has been terminated.

§ 266.414 Termination of a USFRS XL waste approved customer's participation in the USFRS XL Project.

The provisions in this section apply to a USFRS XL waste approved customer who has not yet generated USFRS XL waste. If a USFRS XL waste approved customer has generated or first caused to be regulated USFRS XL waste, then it is a USFRS XL waste generator and must comply with the termination provisions contained in § 266.415. The following procedures are to be followed to terminate a person's participation in the federal USFRS XL Project. MPCA or the County Agencies

may have their own procedures for terminating the participation of a person from their version of this federal USFRS XL Project. EPA is not bound by and will not follow those State or County procedures to terminate a person's continued participation in this USFRS XL Project. A USFRS waste approved customer's participation in the USFRS XL Project will terminate when the USFRS XL Project ends. It may terminate earlier either voluntarily, upon changes in ownership, upon notice by USFRS, EPA, MPCA or the appropriate County Agency.

(a) *Termination by the USFRS XL waste approved customer*. A USFRS XL waste approved customer may terminate its participation in the USFRS XL Project at any time prior to its first generating USFRS XL wastes. The USFRS XL waste approved customer will provide 5 days written notice to USFRS, EPA, MPCA and as appropriate the County Agencies its desire to terminate its in the USFRS XL Project. No further action is required by such USFRS XL waste approved customer.

(b) *Change in ownership*. A USFRS XL waste approved customer's participation will be automatically terminated upon a change in ownership. A USFRS XL waste approved customer must notify USFRS, EPA, MPCA and as appropriate the County Agencies within 5 days of a change in its ownership.

(c) *Termination by EPA, MPCA, County Agency or USFRS*. If EPA or USFRS propose to terminate a USFRS XL waste approved customer they shall provide it with 5 days written notice. If MPCA or the County Agency propose to terminate such person they shall follow their own procedures and provide EPA and USFRS with the results of such proceedings. If MPCA or the County Agency terminates such person's participation in the federal USFRS XL Project, such person will be automatically terminated without further proceedings under this subpart O.

§ 266.415 Termination of a USFRS XL waste generator's participation in the USFRS XL Project.

The procedures identified in this section are to be followed to terminate a waste generator's participation in the federal USFRS XL Project. MPCA or the County Agencies may have their own procedures for terminating the participation of a person from their version of this federal USFRS XL Project. EPA is not bound by and will not follow those State or County procedures to terminate a person's continued participation in this USFRS XL Project. A USFRS waste generator's participation in the USFRS XL Project may terminate when the USFRS XL Project ends. It may also terminate either voluntarily, upon changes in ownership, upon notice by USFRS, EPA, MPCA or the County Agency or at the termination of this subpart O.

(a) *Termination by the USFRS XL waste generator*. The USFRS XL waste generator will provide 60 days written notice to USFRS, EPA, MPCA and the County Agencies of its desire to discontinue participation in the USFRS XL Project. Within the 60 days the USFRS XL waste generator shall accomplish the closure required by § 266.412.

(b) *Termination by EPA, MPCA or the County Agency*. EPA, MPCA or the County Agency may terminate a USFRS XL waste generator's participation. If EPA proposes to terminate such person's participation then it will provide the generator with written notice. EPA retains the right to terminate a USFRS XL waste generator's participation in the USFRS XL Project if the USFRS XL waste generator is in non-compliance with the requirements of this subpart. In the event of termination by EPA, EPA will provide USFRS, the USFRS XL waste generator, MPCA, and as appropriate the County Agencies with 15 days written notice of its intent to terminate a generator's continued participation in the USFRS XL Project. During this period, which commences on receipt of the notice to terminate by the generator, the generator will have the opportunity to come back into compliance or to provide a written explanation as to why it was not in compliance and how it intends to return to compliance. If, upon review of the written explanation EPA re-issues a written notice terminating the generator from this XL Project the generator shall close in accordance with § 266.412. The USFRS XL waste

generator shall complete the closure and comply with § 266.412 within sixty days of EPA's re-issuance of the notice of termination. If MPCA or the County Agency propose to terminate such person they shall follow their own procedures and provide EPA and USFRS with the results of such proceedings. If MPCA or the County Agency terminates such person's participation in the federal USFRS XL Project, that person's participation will be automatically terminated without further proceedings under this subpart and such person must comply with the closure requirements contained in § 266.412.

(c) *Termination by USFRS.* USFRS may terminate a USFRS XL waste generator's participation in the USFRS XL Project only after providing 60 days written notice to the generator, EPA, MPCA and the county agency. Within this time USFRS will arrange for the transport to its facility of the USFRS XL waste in storage. Additionally, USFRS will inspect the USFRS XL waste generator in accordance with § 266.412(b).

(d) *Termination as a result of changes in ownership.* A USFRS XL waste generator will provide written notice to USFRS, EPA, MPCA and as appropriate the County Agencies of a change in its ownership. It will provide such notice within 10 days of the change in ownership. Within the 60 days of the change in ownership the USFRS XL waste generator shall accomplish the closure required by § 266.412 unless, within that time period, EPA has approved of the new owner and EPA has approved of any modifications the new owner proposes to the prior owner's closure responsibilities. If these approvals are not received within this time period the prior owner is still responsible for completing the closure within the 60 days.

§ 266.416 Termination of a USFRS XL waste approved transporter's participation in the USFRS XL Project.

The provisions in this section apply to a USFRS XL waste approved transporter who has not transported or accepted for transport USFRS XL waste. If a USFRS XL waste approved transporter has transported or accepted for transport USFRS XL waste it is a USFRS XL waste transporter and must comply with the termination provisions contained in § 266.417. The procedures identified in this section are to be followed to terminate a person's participation in the federal USFRS XL Project. MPCA or the County Agencies may have their own procedures for terminating the participation of a person from their version of this federal USFRS XL Project. EPA is not bound by and will not follow those State or County procedures to terminate a person's continued participation in this USFRS XL Project. A USFRS waste approved transporter's participation in the USFRS XL Project will terminate when the USFRS XL Project ends. It may also terminate earlier either voluntarily, upon changes in ownership, upon notice by USFRS, EPA, MPCA or the County Agency.

(a) *Termination by the USFRS XL waste approved transporter.* A USFRS XL waste approved transporter may terminate its participation in the USFRS XL Project at any time prior to its first transporting or accepting for transport USFRS XL wastes. The USFRS XL waste approved transporter will provide 5 days written notice to USFRS, EPA, MPCA, and as appropriate the County Agencies of its desire to terminate its participation in the USFRS XL Project. No further action is required by such USFRS XL waste approved transporter.

(b) *Change in ownership.* A USFRS XL waste approved transporter will be automatically terminated upon a change in ownership. A USFRS XL waste approved transporter must notify USFRS, EPA, MPCA and as appropriate the County Agencies within 5 days of a change in its ownership.

(c) *Termination by EPA, MPCA, the County Agencies or USFRS.* EPA, MPCA, the County Agencies and USFRS may also terminate a USFRS XL waste approved transporter's participation in the USFRS XL. If EPA or USFRS propose such termination they will provide the transporter, each other, MPCA and the appropriate County Agencies with 5 days written notice.

§ 266.417 Termination of a USFRS XL waste transporter's participation in the USFRS XL Project.

The procedures identified in this section are to be followed to terminate a person's participation in the federal USFRS XL Project. MPCA or the County Agencies may have their own procedures for terminating the participation of a person from their version of this federal USFRS XL Project. EPA is not bound by and will not follow those State or County procedures to terminate a person's continued participation in this USFRS XL Project. A USFRS waste transporter's participation in the USFRS XL Project will terminate when the USFRS XL Project ends. It may terminate earlier either voluntarily, upon a change in ownership of the transporter, upon notice by USFRS, EPA, MPCA or the County Agencies or at the termination of this subpart O.

(a) *Termination by the USFRS XL waste transporter—voluntary and changes in ownership.* The USFRS XL waste transporter will provide 10 days written notice to USFRS, EPA, MPCA and as appropriate the County Agencies of its desire to terminate its participation in the USFRS XL Project or of a change in ownership. Within 30 days of that notice the USFRS XL waste transporter will ensure that all of its shipments of USFRS XL waste are delivered to the USFRS facility.

(b) *Termination by EPA, MPCA or the County Agencies.* EPA, MPCA or the County Agencies may terminate a USFRS XL waste transporter's participation in the USFRS XL Project. If MPCA or the County Agency propose to terminate such person they shall follow their own procedures and provide EPA and USFRS with the results of such proceedings. If MPCA or the County Agency does terminate such person's participation, such person's participation in the federal USFRS XL Project will be automatically terminated without further proceedings under this subpart and the transporter shall ensure that all shipments of XL waste are delivered to the USFRS facility within 30 days of notice of termination. If EPA proposes to terminate a transporter's participation in the USFRS XL Project EPA will provide such person, MPCA, the County Agency and USFRS with a 30 days written notice prior to terminating such person's participation in the USFRS XL Project. EPA retains the right to terminate a USFRS XL waste transporters participation in the USFRS XL Project if the USFRS XL waste transporter is not in compliance with the requirements of this subpart O. During this period, which commences on receipt of the notice by the transporter, the USFRS XL waste transporter will have the opportunity to come back into compliance or to provide a written explanation as to why it was not in compliance and how it intends to return to compliance. If, upon review of the written explanation EPA re-issues a written notice terminating the USFRS XL waste transporter from this XL Project the USFRS XL waste transporter shall ensure that all shipments of USFRS XL waste are delivered to the USFRS facility within 30 days of such re-issued notice.

(c) *Termination by USFRS.* USFRS may terminate a USFRS XL waste transporter's participation in the USFRS XL Project only after providing 30 days written notice to the transporter, EPA, MPCA and as appropriate the County Agencies. Within this time USFRS will arrange for the transport to its facility of the USFRS XL waste in the possession of the USFRS XL waste transporter.

(d) *Change in ownership.* A USFRS XL waste transporter will be automatically terminated upon a change in ownership. A USFRS XL waste transporter must notify USFRS, EPA, the County Agencies and MPCA within 5 days of a change in its ownership. Within 30 days of its notice of change of ownership the USFRS XL waste transporter shall ensure that all shipments of USFRS XL waste in its possession are delivered to the USFRS facility.

§ 266.418 Termination of USFRS' participation in this XL Project.

The procedures identified in this section are to be followed to terminate USFRS' participation in the federal USFRS XL Project. MPCA or the County Agencies may have their own procedures for terminating USFRS' participation from their version of this

federal USFRS XL Project. EPA is not bound by and will not follow those State or County procedures to terminate USFRS' continued participation in this USFRS XL Project. USFRS' participation in the USFRS XL Project will terminate when the USFRS XL project ends. It may terminate earlier either voluntarily, upon a change in ownership of USFRS, upon notice of EPA, MPCA or as appropriate the County Agency. The USFRS XL Waste Project is terminated if USFRS' participation is terminated, unless there is a change in ownership of USFRS and EPA, MPCA and the County Agencies have approved the new owner's continuation in the USFRS XL project as provided in paragraph (b) of this section. In such an instance USFRS must supply EPA, MPCA and the County Agencies with a proposed schedule for transitioning all USFRS XL Project participants to compliance with the RCRA requirements within 120 days of a notice to terminate pursuant to this section.

(a) *USFRS' termination of its participation in this XL Project—voluntary termination*. USFRS will provide written notice to all USFRS XL Project participants (e.g., USFRS XL waste approved customers and approved transporters, USFRS XL waste generators and transporters), EPA, MPCA and the County Agencies of its desire to terminate its participation in the USFRS XL Project (''voluntary termination'') USFRS will provide its notice of voluntary termination 120 days prior to the date it proposes to terminate this XL Project. Within this 120 days USFRS will arrange for the transition of it and the USFRS XL waste Project participants to return to compliance with the RCRA requirements. During this time all USFRS XL Project participants will complete all closure activities required by § 266.412.

(b) *Termination as a result in a change of ownership of USFRS*. USFRS will provide written notice to EPA, MPCA and the County Agencies of any change in ownership of USFRS. USFRS will provide this notice 90 days prior to a change in ownership. At that time, if the new owner wishes to continue the USFRS XL waste Project it will submit any revisions it proposes to make to the FPA to add itself to the USFRS XL waste project. If EPA and the new owner are able to agree upon and sign the proposed revisions to the FPA within that time frame then the new owner may continue the USFRS XL Project. If an agreement and signature is not obtained within that time frame, the USFRS XL Project will be terminated. If it does not obtain that approval or does not wish to continue the USFRS XL Project then USFRS will arrange for the transition of all USFRS XL waste Project participants to return to compliance with the RCRA requirements within 120 days of the change in ownership. All USFRS XL waste Project participants will complete all closure activities required by § 266.412.

(c) *EPA or MPCA termination of the USFRS XL Project*. EPA or MPCA may terminate this XL Project after providing written notice to USFRS. EPA retains the right to terminate this XL Project if:

(1) USFRS is in non-compliance with the requirements of this subpart;

(2) This Project does not provide superior environmental benefit; or,

(3) If there is repeated non-compliance by USFRS XL waste generators or transporters.

(d) In the event of termination by EPA, EPA will provide USFRS, MPCA and the County Agencies with 30 days written notice of its intent to terminate this XL Project. During this period, which commences on receipt of the notice by USFRS, USFRS will have the opportunity to come back into compliance, to provide a written explanation as to why it was not in compliance and how it intends to return to compliance or otherwise respond to the reasons for EPA's proposed termination. If, upon review of the written explanation EPA re-issues a written notice terminating this XL Project then USFRS shall submit to EPA within 30 days of its receipt of the re-issued notice its plan for transitioning all USFRS XL waste Project participants to compliance with the RCRA requirements. This transition plan shall contain a proposed schedule which accomplishes compliance with RCRA within 120 days of EPA's re-issued written notice.

§ 266.419 USFRS recordkeeping and reporting requirements.

(a) *Annual reporting.* USFRS will provide an annual report, on October 1, on all USFRS XL wastes. It will provide the information separately for each USFRS XL waste generator. The annual report, at a minimum, will include:

(1) An identification of each USFRS XL waste generator who sent USFRS XL wastes to USFRS; the quantity of XL waste that USFRS received from each USFRS XL waste generator during the calendar year and a certification by USFRS that those USFRS XL wastes were treated and recycled at USFRS in accordance with this subpart O;

(2) The amount of water recycled by the generators, the pretreatment chemicals and energy the generators did not use as a result of participating in this USFRS XL Project, the amount of water discharged to the local POTW before and during this project, the amount of sludge recovered by USFRS before and during this project, the amount of sludge recovered as opposed to disposed of by a generator (if the generator disposed of the sludge prior to participating in this project), the quantity of material (ion exchange resins, filters, other wastewater treatment sludge, residues) collected from each facility (monthly), the frequency of resin canister and filter replacement in terms of process volume, the constituents in the material (ion exchange resins, filters, other wastewater treatment sludge, residues) collected at each facility (e.g., recoverable metals, contaminants/non-recoverable materials); and constituents in the material (ion exchange resins, filters, other wastewater treatment sludge, residues) disposed by each facility (e.g., contaminants/non-recoverable material).

(3) Quantity of material (ion exchange resins, filters, other wastewater treatment sludge, residues) to be processed from the XL waste at the USFRS Roseville facility, quantity of the metals recovered from the XL waste at the USFRS Roseville facility, the constituents of the recovered material (ion exchange resins, filters, other wastewater treatment sludge, residues from the XL waste), quantity and constituents of the non-recoverable material from the XL waste (ion exchange resins, filters, other wastewater treatment sludge, residues), and how it was disposed of; and

(4) The quantity of each metal recovered at each metals reclamation facility it uses for this Project.

(b) *Quarterly reporting.* USFRS will submit a quarterly report to EPA, MPCA and the County Agencies on October 1, January 1, April 1 and July 1 which will include:

(1) Sufficient information for EPA to determine the amount of superior environmental benefit resulting from this project. That report will, at a minimum, contain information which includes, but is not limited to: the volume of water and waste collected and recycled; the amount of metals recycled; the volume of recycled material sold to others; data regarding the management of the ion exchange canisters and filter containers; the constituents of the sludge; and information regarding how the sludge and residues are managed;

(2) Financial information related to the costs and savings realized as a result of implementation of this project.

(i) USFRS will collect baseline and XL costs. The baseline costs shall be calculated using two scenarios:

(A) Typical expenses (including any hazardous waste taxes) of the generator (prior to the XL Project) for pretreating and disposing effluent wastewater under the applicable Clean Water Act requirements and the costs for manifesting, transporting and disposing of F006 sludges; and

(B) Typical expenses of the generator that would be incurred if waste were recycled in compliance with RCRA and requirements for manifesting and transportation of those hazardous wastes (including tax obligations under both scenarios).

(ii) The XL costs will include the costs to the generator for completing the Transportation Tracking Document, the transportation costs for XL wastes, the generator's cost to install the ion exchange canisters and filter containers, any other costs the generator incurs such as cleaning up any spills, payment of hazardous waste

taxes, etc., the cost to USFRS of metals reclamation off-site (including costs associated with transportation or disposal). USFRS will compare the baseline costs to the XL costs and provide an analysis of whether the project is resulting in cost savings for generators and which aspects of the XL Project produce any savings. USFRS will also submit any of the information required in paragraphs (b)(2)(i)(A) and (B) of this section upon request by EPA, MPCA or the County Agency;

(3) A list of all USFRS XL Waste Approved Customers and Generators. USFRS shall include on that list the customer and generator's name, a summary of the results of the USFRS waste characterization of the customer and generator's waste stream(s) and process(es), the customer's and generator's process waste streams approved for participation in the USFRS XL Waste Project, the unique client number USFRS has assigned to the customer and generator and its waste stream, the date of USFRS notice to EPA and MPCA proposing to add the customer and generator to the USFRS XL Project; the date on which USFRS notified the customer that it is approved for participation in this USFRS XL Project; and the date USFRS received the signed FPA and certification from the customer or generator. The list shall also contain the date of any notice of termination, and if there is a termination, the date on which USFRS recovered all of its USFRS XL wastes from the generator and the date USFRS conducted its visual evaluation of the condition of the USFRS XL waste storage areas and notice of compliance with § 266.412. USFRS will update its waste customer and generator list when new customers and generators have been approved by EPA, MPCA and the County Agencies or when a customer or generator has been terminated from this XL Project; and

(4) A list of all USFRS XL Waste Approved Transporters. USFRS shall include on this list the transporter's unique USFRS client number, the transporter's name, and if available, EPA identification number and its Minnesota registration number, the date of USFRS notice to EPA and MPCA proposing to add the transporter to the USFRS XL Project; the date on which USFRS notified the transporter that it is a USFRS XL Waste Approved Transporter; and the date on which it received the signed USFRS XL waste FPA and certification. The list shall also contain the date of any notice of termination, and if there is a termination, the date on which USFRS recovered all of its USFRS XL wastes from the transporter. This USFRS XL waste transporter list may be modified upon approval of EPA and MPCA.

(c) *Recordkeeping*. USFRS will retain for three years a copy of USFRS XL waste application forms, and correspondence with each USFRS XL waste approved customer and generator; records of any spill or leak notifications it receives; records of its compliance with this subpart O; and the USFRS XL waste Transportation Tracking Document for each shipment from a USFRS XL waste generator.

§ 266.420 USFRS XL waste generator recordkeeping and reporting requirement.

A USFRS XL waste generator will retain for three years a copy of the USFRS XL Waste FPA, with all appropriate signatures; its USFRS XL waste certification; its log of weekly inspections required by § 266.408(d); its record of any notification of spills or leaks of its USFRS XL wastes required by § 266.408(e); its compliance with the training and facility contact requirements of § 266.408(h); a copy of the signed Transportation Tracking Document for USFRS XL waste it generated; and documentation of its compliance with § 266.412.

§ 266.421 USFRS XL waste transporter recordkeeping and reporting requirement.

A USFRS XL waste transporter will retain for three years a copy of the USFRS XL Waste FPA, with all appropriate signatures; its USFRS XL waste certification; a copy of the signed Transportation Tracking Document for USFRS XL waste it transported; and its record of any notification of spills or leaks of its USFRS XL wastes required by § 266.411

§ 266.422 Effective date and duration of the project.

This subpart O is effective from November 23, 2001 until five years after the State of Minnesota modifies the USFRS RCRA hazardous waste permit to incorporate USFRS' duties under this subpart O.

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)	Barium (g/hr)	Lead (g/hr)	Mercury (g/hr)	Silver (g/hr)	Thallium (g/hr)
4	6.0E+01	1.0E+04	1.8E+01	6.0E+01	6.0E+02	6.0E+01
6	6.8E+01	1.1E+04	2.0E+01	6.8E+01	6.8E+02	6.8E+01
8	7.6E+01	1.3E+04	2.3E+01	7.6E+01	7.6E+02	7.6E+01
10	8.6E+01	1.4E+04	2.6E+01	8.6E+01	8.6E+02	8.6E+01
12	9.6E+01	1.7E+04	3.0E+01	9.6E+01	9.6E+02	9.6E+01
14	1.1E+02	1.8E+04	3.4E+01	1.1E+02	1.1E+03	1.1E+02
16	1.3E+02	2.1E+04	3.6E+01	1.3E+02	1.3E+03	1.3E+02
18	1.4E+02	2.4E+04	4.3E+01	1.4E+02	1.4E+03	1.4E+02
20	1.6E+02	2.7E+04	4.6E+01	1.6E+02	1.6E+03	1.6E+02
22	1.8E+02	3.0E+04	5.4E+01	1.8E+02	1.8E+03	1.8E+02
24	2.0E+02	3.4E+04	6.0E+01	2.0E+02	2.0E+03	2.0E+02
26	2.3E+02	3.9E+04	6.8E+01	2.3E+02	2.3E+03	2.3E+02
28	2.6E+02	4.3E+04	7.8E+01	2.6E+02	2.6E+03	2.6E+02
30	3.0E+02	5.0E+04	9.0E+01	3.0E+02	3.0E+03	3.0E+02
35	4.0E+02	6.6E+04	1.1E+02	4.0E+02	4.0E+03	4.0E+02
40	4.6E+02	7.8E+04	1.4E+02	4.6E+02	4.6E+03	4.6E+02
45	6.0E+02	1.0E+05	1.8E+02	6.0E+02	6.0E+03	6.0E+02
50	7.8E+02	1.3E+05	2.3E+02	7.8E+02	7.8E+03	7.8E+02
55	9.6E+02	1.7E+05	3.0E+02	9.6E+02	9.6E+03	9.6E+02
60	1.2E+03	2.0E+05	3.6E+02	1.2E+03	1.2E+04	1.2E+03
65	1.5E+03	2.5E+05	4.3E+02	1.5E+03	1.5E+04	1.5E+03
70	1.7E+03	2.8E+05	5.0E+02	1.7E+03	1.7E+04	1.7E+03
75	1.9E+03	3.2E+05	5.8E+02	1.9E+03	1.9E+04	1.9E+03
80	2.2E+03	3.6E+05	6.4E+02	2.2E+03	2.2E+04	2.2E+03
85	2.5E+03	4.0E+05	7.6E+02	2.5E+03	2.5E+04	2.5E+03
90	2.8E+03	4.6E+05	8.2E+02	2.8E+03	2.8E+04	2.8E+03
95	3.2E+03	5.4E+05	9.6E+02	3.2E+03	3.2E+04	3.2E+03
100	3.6E+03	6.0E+05	1.1E+03	3.6E+03	3.6E+04	3.6E+03
105	4.0E+03	6.8E+05	1.2E+03	4.0E+03	4.0E+04	4.0E+03
110	4.6E+03	7.8E+05	1.4E+03	4.6E+03	4.6E+04	4.6E+03
115	5.4E+03	8.6E+05	1.6E+03	5.4E+03	5.4E+04	5.4E+03
120	6.0E+03	1.0E+06	1.8E+03	6.0E+03	6.0E+04	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]

Terrain adjusted eff. stack ht. (m)	Antimony (g/hr)	Barium (g/hr)	Lead (g/hr)	Mercury (g/hr)	Silver (g/hr)	Thallium (g/hr)
4	3.1E+01	5.2E+03	9.4E+00	3.1E+01	3.1E+02	3.1E+01
6	3.6E+01	6.0E+03	1.1E+01	3.6E+01	3.6E+02	3.6E+01

TABLE I–B—TIER I AND TIER II FEED RATE AND EMISSIONS SCREENING LIMITS FOR NONCARCINOGENIC METALS FOR FACILITIES IN NONCOMPLEX TERRAIN—Continued

[Values for rural areas]

Terrain adjusted eff. stack ht. (m)	Antimony (g/hr)	Barium (g/hr)	Lead (g/hr)	Mercury (g/hr)	Silver (g/hr)	Thallium (g/hr)
8	4.0E+01	6.8E+03	1.2E+01	4.0E+01	4.0E+02	4.0E+01
10	4.6E+01	7.8E+03	1.4E+01	4.6E+01	4.6E+02	4.6E+01
12	5.8E+01	9.6E+03	1.7E+01	5.8E+01	5.8E+02	5.8E+01
14	6.8E+01	1.1E+04	2.1E+01	6.8E+01	6.8E+02	6.8E+01
16	8.6E+01	1.4E+04	2.6E+01	8.6E+01	8.6E+02	8.6E+01
18	1.1E+02	1.8E+04	3.2E+01	1.1E+02	1.1E+03	1.1E+02
20	1.3E+02	2.2E+04	4.0E+01	1.3E+02	1.3E+03	1.3E+02
22	1.7E+02	2.8E+04	5.0E+01	1.7E+02	1.7E+03	1.7E+02
24	2.2E+02	3.6E+04	6.4E+01	2.2E+02	2.2E+03	2.2E+02
26	2.8E+02	4.6E+04	8.2E+01	2.8E+02	2.8E+03	2.8E+02
28	3.5E+02	5.8E+04	1.0E+02	3.5E+02	3.5E+03	3.5E+02
30	4.3E+02	7.6E+04	1.3E+02	4.3E+02	4.3E+03	4.3E+02
35	7.2E+02	1.2E+05	2.1E+02	7.2E+02	7.2E+03	7.2E+02
40	1.1E+03	1.8E+05	3.2E+02	1.1E+03	1.1E+04	1.1E+03
45	1.5E+03	2.5E+05	4.6E+02	1.5E+03	1.5E+04	1.5E+03
50	2.0E+03	3.3E+05	6.0E+02	2.0E+03	2.0E+04	2.0E+03
55	2.6E+03	4.4E+05	7.8E+02	2.6E+03	2.6E+04	2.6E+03
60	3.4E+03	5.8E+05	1.0E+03	3.4E+03	3.4E+04	3.4E+03
65	4.6E+03	7.6E+05	1.4E+03	4.6E+03	4.6E+04	4.6E+03
70	5.4E+03	9.0E+05	1.6E+03	5.4E+03	5.4E+04	5.4E+03
75	6.4E+03	1.1E+06	1.9E+03	6.4E+03	6.4E+04	6.4E+03
80	7.6E+03	1.3E+06	2.3E+03	7.6E+03	7.6E+04	7.6E+03
85	9.4E+03	1.5E+06	2.8E+03	9.4E+03	9.4E+04	9.4E+03
90	1.1E+04	1.8E+06	3.3E+03	1.1E+04	1.1E+05	1.1E+04
95	1.3E+04	2.2E+06	3.9E+03	1.3E+04	1.3E+05	1.3E+04
100	1.5E+04	2.6E+06	4.6E+03	1.5E+04	1.5E+05	1.5E+04
105	1.8E+04	3.0E+06	5.4E+03	1.8E+04	1.8E+05	1.8E+04
110	2.2E+04	3.6E+06	6.6E+03	2.2E+04	2.2E+05	2.2E+04
115	2.6E+04	4.4E+06	7.8E+03	2.6E+04	2.6E+05	2.6E+04
120	3.1E+04	5.0E+06	9.2E+03	3.1E+04	3.1E+05	3.1E+04

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						
Terrain adjusted eff. stack ht. (m)	Antimony (g/hr)	Barium (g/hr)	Lead (g/hr)	Mercury (g/hr)	Silver (g/hr)	Thallium (g/hr)
4	1.4E+01	2.4E+03	4.3E+00	1.4E+01	1.4E+02	1.4E+01
6	2.1E+01	3.5E+03	6.2E+00	2.1E+01	2.1E+02	2.1E+01
8	3.0E+01	5.0E+03	9.2E+00	3.0E+01	3.0E+02	3.0E+01
10	4.3E+01	7.6E+03	1.3E+01	4.3E+01	4.3E+02	4.3E+01
12	5.4E+01	9.0E+03	1.7E+01	5.4E+01	5.4E+02	5.4E+01

14	6.8E+01	1.1E+04	2.0E+01	6.8E+01	6.8E+02	6.8E+01
16	7.8E+01	1.3E+04	2.4E+01	7.8E+01	7.8E+02	7.8E+01
18	8.6E+01	1.4E+04	2.6E+01	8.6E+01	8.6E+02	8.6E+01
20	9.6E+01	1.6E+04	2.9E+01	9.6E+01	9.6E+02	9.6E+01
22	1.0E+02	1.8E+04	3.2E+01	1.0E+02	1.0E+03	1.0E+02
24	1.2E+02	1.9E+04	3.5E+01	1.2E+02	1.2E+03	1.2E+02
26	1.3E+02	2.2E+04	3.6E+01	1.3E+02	1.3E+03	1.3E+02
28	1.4E+02	2.4E+04	4.3E+01	1.4E+02	1.4E+03	1.4E+02
30	1.6E+02	2.7E+04	4.6E+01	1.6E+02	1.6E+03	1.6E+02
35	2.0E+02	3.3E+04	5.8E+01	2.0E+02	2.0E+03	2.0E+02
40	2.4E+02	4.0E+04	7.2E+01	2.4E+02	2.4E+03	2.4E+02
45	3.0E+02	5.0E+04	9.0E+01	3.0E+02	3.0E+03	3.0E+02
50	3.6E+02	6.0E+04	1.1E+02	3.6E+02	3.6E+03	3.6E+02
55	4.6E+02	7.6E+04	1.4E+02	4.6E+02	4.6E+03	4.6E+02
60	5.8E+02	9.4E+04	1.7E+02	5.8E+02	5.8E+03	5.8E+02
65	6.8E+02	1.1E+05	2.1E+02	6.8E+02	6.8E+03	6.8E+02
70	7.8E+02	1.3E+05	2.4E+02	7.8E+02	7.8E+03	7.8E+02
75	8.6E+02	1.4E+05	2.6E+02	8.6E+02	8.6E+03	8.6E+02
80	9.6E+02	1.6E+05	2.9E+02	9.6E+02	9.6E+03	9.6E+02
85	1.1E+03	1.8E+05	3.3E+02	1.1E+03	1.1E+04	1.1E+03
90	1.2E+03	2.0E+05	3.6E+02	1.2E+03	1.2E+04	1.2E+03
95	1.4E+03	2.3E+05	4.0E+02	1.4E+03	1.4E+04	1.4E+03
100	1.5E+03	2.6E+05	4.6E+02	1.5E+03	1.5E+04	1.5E+03
105	1.7E+03	2.8E+05	5.0E+02	1.7E+03	1.7E+04	1.7E+03
110	1.9E+03	3.2E+05	5.8E+02	1.9E+03	1.9E+04	1.9E+03
115	2.1E+03	3.6E+05	6.4E+02	2.1E+03	2.1E+04	2.1E+03
120	2.4E+03	4.0E+05	7.2E+02	2.4E+03	2.4E+04	2.4E+03

TABLE I–D—TIER I AND TIER II FEED RATE AND EMISSIONS SCREENING LIMITS FOR CARCINOGENIC METALS FOR FACILITIES IN NONCOMPLEX TERRAIN

	Values for use in urban areas				Values for use in rural areas			
Terrain adjusted eff. stack ht. (m)	Arsenic (g/hr)	Cadmium (g/hr)	Chromium (g/hr)	Beryllium (g/hr)	Arsenic (g/hr)	Cadmium (g/hr)	Chromium (g/hr)	Beryllium (g/hr)
4	4.6E−01	1.1E+00	1.7E−01	8.2E−01	2.4E−01	5.8E−01	8.6E−02	4.3E−01
6	5.4E−01	1.3E+00	1.9E−01	9.4E−01	2.8E−01	6.6E−01	1.0E−01	5.0E−01
8	6.0E−01	1.4E+00	2.2E−01	1.1E+00	3.2E−01	7.6E−01	1.1E−01	5.6E−01
10	6.8E−01	1.6E+00	2.4E−01	1.2E+00	3.6E−01	8.6E−01	1.3E−01	6.4E−01
12	7.6E−01	1.8E+00	2.7E−01	1.4E+00	4.3E−01	1.1E+00	1.6E−01	7.8E−01
14	8.6E−01	2.1E+00	3.1E−01	1.5E+00	5.4E−01	1.3E+00	2.0E−01	9.6E−01
16	9.6E−01	2.3E+00	3.5E−01	1.7E+00	6.8E−01	1.6E+00	2.4E−01	1.2E+00
18	1.1E+00	2.6E+00	4.0E−01	2.0E+00	8.2E−01	2.0E+00	3.0E−01	1.5E+00
20	1.2E+00	3.0E+00	4.4E−01	2.2E+00	1.0E+00	2.5E+00	3.7E−01	1.9E+00
22	1.4E+00	3.4E+00	5.0E−01	2.5E+00	1.3E+00	3.2E+00	4.8E−01	2.4E+00
24	1.6E+00	3.9E+00	5.8E−01	2.8E+00	1.7E+00	4.0E+00	6.0E−01	3.0E+00
26	1.8E+00	4.3E+00	6.4E−01	3.2E+00	2.1E+00	5.0E+00	7.6E−01	3.9E+00
28	2.0E+00	4.8E+00	7.2E−01	3.6E+00	2.7E+00	6.4E+00	9.8E−01	5.0E+00
30	2.3E+00	5.4E+00	8.2E−01	4.0E+00	3.5E+00	8.2E+00	1.2E+00	6.2E+00

TABLE I–D—TIER I AND TIER II FEED RATE AND EMISSIONS SCREENING LIMITS FOR CARCINOGENIC METALS FOR FACILITIES IN NONCOMPLEX TERRAIN—Continued

	Values for use in urban areas				Values for use in rural areas			
Terrain adjusted eff. stack ht. (m)	Arsenic (g/hr)	Cadmium (g/hr)	Chromium (g/hr)	Beryllium (g/hr)	Arsenic (g/hr)	Cadmium (g/hr)	Chromium (g/hr)	Beryllium (g/hr)
35	3.0E+00	6.8E+00	1.0E+00	5.4E+00	5.4E+00	1.3E+01	1.9E+00	9.6E+00
40	3.6E+00	9.0E+00	1.3E+00	6.8E+00	8.2E+00	2.0E+01	3.0E+00	1.5E+01
45	4.6E+00	1.1E+01	1.7E+00	8.6E+00	1.1E+01	2.8E+01	4.2E+00	2.1E+01
50	6.0E+00	1.4E+01	2.2E+00	1.1E+01	1.5E+01	3.7E+01	5.4E+00	2.8E+01
55	7.6E+00	1.8E+01	2.7E+00	1.4E+01	2.0E+01	5.0E+01	7.2E+00	3.6E+01
60	9.4E+00	2.2E+01	3.4E+00	1.7E+01	2.7E+01	6.4E+01	9.6E+00	4.8E+01
65	1.1E+01	2.8E+01	4.2E+00	2.1E+01	3.6E+01	8.6E+01	1.3E+01	6.4E+01
70	1.3E+01	3.1E+01	4.6E+00	2.4E+01	4.3E+01	1.0E+02	1.5E+01	7.6E+01
75	1.5E+01	3.6E+01	5.4E+00	2.7E+01	5.0E+01	1.2E+02	1.8E+01	9.0E+01
80	1.7E+01	4.0E+01	6.0E+00	3.0E+01	6.0E+01	1.4E+02	2.2E+01	1.1E+02
85	1.9E+01	4.6E+01	6.8E+00	3.4E+01	7.2E+01	1.7E+02	2.6E+01	1.3E+02
90	2.2E+01	5.0E+01	7.8E+00	3.9E+01	8.6E+01	2.0E+02	3.0E+01	1.5E+02
95	2.5E+01	5.8E+01	9.0E+00	4.4E+01	1.0E+02	2.4E+02	3.6E+01	1.8E+02
100	2.8E+01	6.8E+01	1.0E+01	5.0E+01	1.2E+02	2.9E+02	4.3E+01	2.2E+02
105	3.2E+01	7.6E+01	1.1E+01	5.6E+01	1.4E+02	3.4E+02	5.0E+01	2.6E+02
110	3.6E+01	8.6E+01	1.3E+01	6.4E+01	1.7E+02	4.0E+02	6.0E+01	3.0E+02
115	4.0E+01	9.6E+01	1.5E+01	7.2E+01	2.0E+02	4.8E+02	7.2E+01	3.6E+02
120	4.6E+01	1.1E+02	1.7E+01	8.2E+01	2.4E+02	5.8E+02	8.6E+01	4.3E+02

TABLE I–E—TIER I AND TIER II FEED RATE AND EMISSIONS SCREENING LIMITS FOR CARCINOGENIC METALS FOR FACILITIES IN COMPLEX TERRAIN

	Values for use in urban and rural areas			
Terrain adjusted eff. stack ht. (m)	Arsenic (g/hr)	Cadmium (g/hr)	Chromium (g/hr)	Beryllium (g/hr)
4	1.1E−01	2.6E−01	4.0E−02	2.0E−01
6	1.6E−01	3.9E−01	5.8E−02	2.9E−01
8	2.4E−01	5.8E−01	8.6E−02	4.3E−01
10	3.5E−01	8.2E−01	1.3E−01	6.2E−01
12	4.3E−01	1.0E+00	1.5E−01	7.6E−01
14	5.0E−01	1.3E+00	1.9E−01	9.4E−01
16	6.0E−01	1.4E+00	2.2E−01	1.1E+00
18	6.8E−01	1.6E+00	2.4E−01	1.2E+00
20	7.6E−01	1.8E+00	2.7E−01	1.3E+00
22	8.2E−01	1.9E+00	3.0E−01	1.5E+00
24	9.0E−01	2.1E+00	3.3E−01	1.6E+00
26	1.0E+00	2.4E+00	3.6E−01	1.8E+00
28	1.1E+00	2.7E+00	4.0E−01	2.0E+00
30	1.2E+00	3.0E+00	4.4E−01	2.2E+00
35	1.5E+00	3.7E+00	5.4E−01	2.7E+00
40	1.9E+00	4.6E+00	6.8E−01	3.4E+00
45	2.4E+00	5.4E+00	8.4E−01	4.2E+00

50	2.9E+00	6.8E+00	1.0E+00	5.0E+00
55	3.5E+00	8.4E+00	1.3E+00	6.4E+00
60	4.3E+00	1.0E+01	1.5E+00	7.8E+00
65	5.4E+00	1.3E+01	1.9E+00	9.6E+00
70	6.0E+00	1.4E+01	2.2E+00	1.1E+01
75	6.8E+00	1.6E+01	2.4E+00	1.2E+01
80	7.6E+00	1.8E+01	2.7E+00	1.3E+01
85	8.2E+00	2.0E+01	3.0E+00	1.5E+01
90	9.4E+00	2.3E+01	3.4E+00	1.7E+01
95	1.0E+01	2.5E+01	4.0E+00	1.9E+01
100	1.2E+01	2.8E+01	4.3E+00	2.1E+01
105	1.3E+01	3.2E+01	4.8E+00	2.4E+01
110	1.5E+01	3.5E+01	5.4E+00	2.7E+01
115	1.7E+01	4.0E+01	6.0E+00	3.0E+01
120	1.9E+01	4.4E+01	6.4E+00	3.3E+01

[56 FR 7228, Feb. 21, 1991; 56 FR 32690, July 17, 1991]

APPENDIX II TO PART 266—TIER I FEED RATE SCREENING LIMITS FOR TOTAL CHLORINE

Terrain-adjusted effective stack height (m)	Noncomplex Terrain		Complex Terrain
	Urban (g/hr)	Rural (g/hr)	(g/hr)
4	8.2E+01	4.2E+01	1.9E+01
6	9.1E+01	4.8E+01	2.8E+01
8	1.0E+02	5.3E+01	4.1E+01
10	1.2E+02	6.2E+01	5.8E+01
12	1.3E+02	7.7E+01	7.2E+01
14	1.5E+02	9.1E+01	9.1E+01
16	1.7E+02	1.2E+02	1.1E+02
18	1.9E+02	1.4E+02	1.2E+02
20	2.1E+02	1.8E+02	1.3E+02
22	2.4E+02	2.3E+02	1.4E+02
24	2.7E+02	2.9E+02	1.6E+02
26	3.1E+02	3.7E+02	1.7E+02
28	3.5E+02	4.7E+02	1.9E+02
30	3.9E+02	5.8E+02	2.1E+02
35	5.3E+02	9.6E+02	2.6E+02
40	6.2E+02	1.4E+03	3.3E+02
45	8.2E+02	2.0E+03	4.0E+02
50	1.1E+03	2.6E+03	4.8E+02
55	1.3E+03	3.5E+03	6.2E+02
60	1.6E+03	4.6E+03	7.7E+02
65	2.0E+03	6.2E+03	9.1E+02
70	2.3E+03	7.2E+03	1.1E+03
75	2.5E+03	8.6E+03	1.2E+03
80	2.9E+03	1.0E+04	1.3E+03
85	3.3E+03	1.2E+04	1.4E+03
90	3.7E+03	1.4E+04	1.6E+03
95	4.2E+03	1.7E+04	1.8E+03
100	4.8E+03	2.1E+04	2.0E+03
105	5.3E+03	2.4E+04	2.3E+03
110	6.2E+03	2.9E+04	2.5E+03
115	7.2E+03	3.5E+04	2.8E+03
120	8.2E+03	4.1E+04	3.2E+03

[56 FR 32690, July 17, 1991]

APPENDIX III TO PART 266—TIER II EMISSION RATE SCREENING LIMITS FOR FREE CHLORINE AND HYDROGEN CHLORIDE

Terrain-adjusted effective stack height (m)	Noncomplex terrain				Complex terrain	
	Values for urban areas		Values for rural areas		Values for use in urban and rural areas	
	$C1_2$ (g/hr)	HC1 (g/hr)	$C1_2$ (g/hr)	HC1 (g/hr)	$C1_2$ (g/hr)	HC1 (g/hr)
4	8.2E+01	1.4E+03	4.2E+01	7.3E+02	1.9E+01	3.3E+02
6	9.1E+01	1.6E+03	4.8E+01	8.3E+02	2.8E+01	4.9E+02
8	1.0E+02	1.8E+03	5.3E+01	9.2E+02	4.1E+01	7.1E+02
10	1.2E+02	2.0E+03	6.2E+01	1.1E+03	5.8E+01	1.0E+03
12	1.3E+02	2.3E+03	7.7E+01	1.3E+03	7.2E+01	1.3E+03
14	1.5E+02	2.6E+03	9.1E+01	1.6E+03	9.1E+01	1.6E+03
16	1.7E+02	2.9E+03	1.2E+02	2.0E+03	1.1E+02	1.8E+03
18	1.9E+02	3.3E+03	1.4E+02	2.5E+03	1.2E+02	2.0E+03
20	2.1E+02	3.7E+03	1.8E+02	3.1E+03	1.3E+02	2.3E+03
22	2.4E+02	4.2E+03	2.3E+02	3.9E+03	1.4E+02	2.4E+03
24	2.7E+02	4.8E+03	2.9E+02	5.0E+03	1.6E+02	2.8E+03
26	3.1E+02	5.4E+03	3.7E+02	6.5E+03	1.7E+02	3.0E+03
28	3.5E+02	6.0E+03	4.7E+02	8.1E+03	1.9E+02	3.4E+03
30	3.9E+02	6.9E+03	5.8E+02	1.0E+04	2.1E+02	3.7E+03
35	5.3E+02	9.2E+03	9.6E+02	1.7E+04	2.6E+02	4.6E+03
40	6.2E+02	1.1E+04	1.4E+03	2.5E+04	3.3E+02	5.7E+03
45	8.2E+02	1.4E+04	2.0E+03	3.5E+04	4.0E+02	7.0E+03
50	1.1E+03	1.8E+04	2.6E+03	4.6E+04	4.8E+02	8.4E+03
55	1.3E+03	2.3E+04	3.5E+03	6.1E+04	6.2E+02	1.1E+04
60	1.6E+03	2.9E+04	4.6E+03	8.1E+04	7.7E+02	1.3E+04
65	2.0E+03	3.4E+04	6.2E+03	1.1E+05	9.1E+02	1.6E+04

Terrain-adjusted effective stack height (m)	Noncomplex terrain				Complex terrain	
	Values for urban areas		Values for rural areas		Values for use in urban and rural areas	
	$C1_2$ (g/hr)	HC1 (g/hr)	$C1_2$ (g/hr)	HC1 (g/hr)	$C1_2$ (g/hr)	HC1 (g/hr)
70	2.3E+03	3.9E+04	7.2E+03	1.3E+05	1.1E+03	1.8E+04
75	2.5E+03	4.5E+04	8.6E+03	1.5E+05	1.2E+03	2.0E+04
80	2.9E+03	5.0E+04	1.0E+04	1.8E+05	1.3E+03	2.3E+04
85	3.3E+03	5.8E+04	1.2E+04	2.2E+05	1.4E+03	2.5E+04
90	3.7E+03	6.6E+04	1.4E+04	2.5E+05	1.6E+03	2.9E+04
95	4.2E+03	7.4E+04	1.7E+04	3.0E+05	1.8E+03	3.2E+04
100	4.8E+03	8.4E+04	2.1E+04	3.6E+05	2.0E+03	3.5E+04
105	5.3E+03	9.2E+04	2.4E+04	4.3E+05	2.3E+03	3.9E+04
110	6.2E+03	1.1E+05	2.9E+04	5.1E+05	2.5E+03	4.5E+04
115	7.2E+03	1.3E+05	3.5E+04	6.1E+05	2.8E+03	5.0E+04
120	8.2E+03	1.4E+05	4.1E+04	7.2E+05	3.2E+03	5.6E+04

[56 FR 32691, July 17, 1991]

Appendix IV to Part 266—Reference Air Concentrations*

Constituent	CAS No.	RAC (ug/m³)
Acetaldehyde	75–07–0	10
Acetonitrile	75–05–8	10
Acetophenone	98–86–2	100
Acrolein	107–02–8	20
Aldicarb	116–06–3	1
Aluminum Phosphide	20859–73–8	0.3
Allyl Alcohol	107–18–6	5
Antimony	7440–36–0	0.3
Barium	7440–39–3	50
Barium Cyanide	542–62–1	50
Bromomethane	74–83–9	0.8
Calcium Cyanide	592–01–8	30
Carbon Disulfide	75–15–0	200
Chloral	75–87–6	2
Chlorine (free)		0.4
2-Chloro-1,3-butadiene	126–99–8	3
Chromium III	16065–83–1	1000
Copper Cyanide	544–92–3	5
Cresols	1319–77–3	50
Cumene	98–82–8	1
Cyanide (free)	57–12–15	20
Cyanogen	460–19–5	30
Cyanogen Bromide	506–68–3	80
Di-n-butyl Phthalate	84–74–2	100
o-Dichlorobenzene	95–50–1	10
p-Dichlorobenzene	106–46–7	10
Dichlorodifluoromethane	75–71–8	200
2,4-Dichlorophenol	120–83–2	3
Diethyl Phthalate	84–66–2	800
Dimethoate	60–51–5	0.8
2,4-Dinitrophenol	51–28–5	2
Dinoseb	88–85–7	0.9
Diphenylamine	122–39–4	20
Endosulfan	115–29–1	0.05
Endrin	72–20–8	0.3
Fluorine	7782–41–4	50
Formic Acid	64–18–6	2000
Glycidyaldehyde	765–34–4	0.3
Hexachlorocyclopentadiene	77–47–4	5
Hexachlorophene	70–30–4	0.3
Hydrocyanic Acid	74–90–8	20
Hydrogen Chloride	7647–01–1	7
Hydrogen Sulfide	7783–06–4	3
Isobutyl Alcohol	78–83–1	300
Lead	7439–92–1	0.09
Maleic Anyhdride	108–31–6	100
Mercury	7439–97–6	0.3
Methacrylonitrile	126–98–7	0.1
Methomyl	16752–77–5	20
Methoxychlor	72–43–5	50
Methyl Chlorocarbonate	79–22–1	1000
Methyl Ethyl Ketone	78–93–3	80
Methyl Parathion	298–00–0	0.3
Nickel Cyanide	557–19–7	20
Nitric Oxide	10102–43–9	100
Nitrobenzene	98–95–3	0.8
Pentachlorobenzene	608–93–5	0.8
Pentachlorophenol	87–86–5	30
Phenol	108–95–2	30
M-Phenylenediamine	108–45–2	5
Phenylmercuric Acetate	62–38–4	0.075
Phosphine	7803–51–2	0.3
Phthalic Anhydride	85–44–9	2000
Potassium Cyanide	151–50–8	50
Potassium Silver Cyanide	506–61–6	200
Pyridine	110–86–1	1
Selenious Acid	7783–60–8	3
Selenourea	630–10–4	5
Silver	7440–22–4	3
Silver Cyanide	506–64–9	100
Sodium Cyanide	143–33–9	30
Strychnine	57–24–9	0.3
1,2,4,5-Tetrachlorobenzene	95–94–3	0.3
2,3,4,6-Tetrachlorophenol	58–90–2	30
Tetraethyl Lead	78–00–2	0.0001
Tetrahydrofuran	109–99–9	10
Thallic Oxide	1314–32–5	0.3
Thallium	7440–28–0	0.5
Thallium (I) Acetate	563–68–8	0.5
Thallium (I) Carbonate	6533–73–9	0.3
Thallium (I) Chloride	7791–12–0	0.3
Thallium (I) Nitrate	10102–45–1	0.5
Thallium Selenite	12039–52–0	0.5
Thallium (I) Sulfate	7446–18–6	0.075
Thiram	137–26–8	5
Toluene	108–88–3	300
1,2,4-Trichlorobenzene	120–82–1	20
Trichloromonofluoromethane	75–69–4	300
2.4.5-Trichlorophenol	95–95–4	100
Vanadium Pentoxide	1314–62–1	20
Warfarin	81–81–2	0.3
Xylenes	1330–20–7	80
Zinc Cyanide	557–21–1	50
Zinc Phosphide	1314–84–7	0.3

*The RAC for other appendix VIII part 261 constituents not listed herein or in appendix V of this part is 0.1 ug/m³.

[56 FR 7232, Feb. 21, 1991; 56 FR 32691, July 17, 1991]

APPENDIX V TO PART 266—RISK SPECIFIC DOSES (10^{-5})

Constituent	CAS No.	Unit risk (m3/ug)	RsD (ug/m3)
Acrylamide	79–06–1	1.3E−03	7.7E−03
Acrylonitrile	107–13–1	6.8E−05	1.5E−01
Aldrin	309–00–2	4.9E−03	2.0E−03
Aniline	62–53–3	7.4E−06	1.4E+00
Arsenic	7440–38–2	4.3E−03	2.3E−03
Benz(a)anthracene	56–55–3	8.9E−04	1.1E−02
Benxene	71–43–2	8.3E−06	1.2E+00
Benzidine	92–87–5	6.7E−02	1.5E−04
Benzo(a)pyrene	50–32–8	3.3E−03	3.0E−03
Beryllium	7440–41–7	2.4E−03	4.2E−03
Bis(2-chloroethyl)ether	111–44–4	3.3E−04	3.0E−02
Bis(chloromethyl)ether	542–88–1	6.2E−02	1.6E−04
Bis(2-ethylhexyl)-phthalate	117–81–7	2.4E−07	4.2E+01
1,3-Butadiene	106–99–0	2.8E−04	3.6E−02
Cadmium	7440–43–9	1.8E−03	5.6E−03
Carbon Tetrachloride	56–23–5	1.5E−05	6.7E−01
Chlordane	57–74–9	3.7E−04	2.7E−02
Chloroform	67–66–3	2.3E−05	4.3E−01
Chloromethane	74–87–3	3.6E−06	2.8E+00
Chromium VI	7440–47–3	1.2E−02	8.3E−04
DDT	50–29–3	9.7E−05	1.0E−01
Dibenz(a,h)anthracene	53–70–3	1.4E−02	7.1E−04
1,2-Dibromo-3-chloropropane	96–12–8	6.3E−03	1.6E−03
1,2-Dibromoethane	106–93–4	2.2E−04	4.5E−02
1,1-Dichloroethane	75–34–3	2.6E−05	3.8E−01
1,2-Dichloroethane	107–06–2	2.6E−05	3.8E−01
1,1-Dichloroethylene	75–35–4	5.0E−05	2.0E−01
1,3-Dichloropropene	542–75–6	3.5E−01	2.9E−05
Dieldrin	60–57–1	4.6E−03	2.2E−03
Diethylstilbestrol	56–53–1	1.4E−01	7.1E−05
Dimethylnitrosamine	62–75–9	1.4E−02	7.1E−04
2,4-Dinitrotoluene	121–14–2	8.8E−05	1.1E−01
1,2-Diphenylhydrazine	122–66–7	2.2E−04	4.5E−02
1,4-Dioxane	123–91–1	1.4E−06	7.1E+00
Epichlorohydrin	106–89–8	1.2E−06	8.3E+00
Ethylene Oxide	75–21–8	1.0E−04	1.0E−01
Ethylene Dibromide	106–93–4	2.2E−04	4.5E−02
Formaldehyde	50–00–0	1.3E−05	7.7E−01
Heptachlor	76–44–8	1.3E−03	7.7E−03
Heptachlor Epoxide	1024–57–3	2.6E−03	3.8E−03
Hexachlorobenzene	118–74–1	4.9E−04	2.0E−02
Hexachlorobutadiene	87–68–3	2.0E−05	5.0E−01
Alpha-hexachloro-cyclohexane	319–84–6	1.8E−03	5.6E−03
Beta-hexachloro-cyclohexane	319–85–7	5.3E−04	1.9E−02
Gamma-hexachloro-cyclohexane	58–89–9	3.8E−04	2.6E−02
Hexachlorocyclo-hexane, Technical	.....	5.1E−04	2.0E−02
Hexachlorodibenxo-p-dioxin(1,2 Mixture)	.....	1.3E+0	7.7E−06
Hexachloroethane	67–72–1	4.0E−06	2.5E+00
Hydrazine	302–01–2	2.9E−03	3.4E−03
Hydrazine Sulfate	302–01–2	2.9E−03	3.4E−03
3-Methylcholanthrene	56–49–5	2.7E−03	3.7E−03
Methyl Hydrazine	60–34–4	3.1E−04	3.2E−02
Methylene Chloride	75–09–2	4.1E−06	2.4E+00
4,4'-Methylene-bis-2-chloroaniline	101–14–4	4.7E−05	2.1E−01
Nickel	7440–02–0	2.4E−04	4.2E−02
Nickel Refinery Dust	7440–02–0	2.4E−04	4.2E−02
Nickel Subsulfide	12035–72–2	4.8E−04	2.1E−02
2-Nitropropane	79–46–9	2.7E−02	3.7E−04
N-Nitroso-n-butylamine	924–16–3	1.6E−03	6.3E−03
N-Nitroso-n-methylurea	684–93–5	8.6E−02	1.2E−04
N-Nitrosodiethylamine	55–18–5	4.3E−02	2.3E−04
N-Nitrosopyrrolidine	930–55–2	6.1E−04	1.6E−02
Pentachloronitrobenzene	82–68–8	7.3E−05	1.4E−01
PCBs	1336–36–3	1.2E−03	8.3E−03
Pronamide	23950–58–5	4.6E−06	2.2E+00
Reserpine	50–55–5	3.0E−03	3.3E−03
2,3,7,8-Tetrachloro-dibenzo-p-dioxin	1746–01–6	4.5E+01	2.2E−07
1,1,2,2-Tetrachloroethane	79–34–5	5.8E−05	1.7E−01

Constituent	CAS No.	Unit risk (m3/ug)	RsD (ug/m3)
Tetrachloroethylene	127–18–4	4.8E−07	2.1E+01
Thiourea	62–56–6	5.5E−04	1.8E−02
1,1,2-Trichloroethane	79–00–5	1.6E−05	6.3E−01
Trichloroethylene	79–01–6	1.3E−06	7.7E+00
2,4,6-Trichlorophenol	88–06–2	5.7E−06	1.8E+00
Toxaphene	8001–35–2	3.2E−04	3.1E−02
Vinyl Chloride	75–01–4	7.1E−06	1.4E+00

[56 FR 7232, Feb. 21, 1991]

Appendix VI to Part 266—Stack Plume Rise

[Estimated Plume Rise (in Meters) Based on Stack Exit Flow Rate and Gas Temperature]

Flow rate (m3/s)	Exhaust Temperature (K°)										
	<325	325–349	350–399	400–449	450–499	500–599	600–699	700–799	800–999	1000–1499	>1499
<0.5	0	0	0	0	0	0	0	0	0	0	0
0.5–0.9	0	0	0	0	0	0	0	0	1	1	1
1.0–1.9	0	0	0	0	1	1	2	3	3	3	4
2.0–2.9	0	0	1	3	4	4	6	6	7	8	9
3.0–3.9	0	1	2	5	6	7	9	10	11	12	13
4.0–4.9	1	2	4	6	8	10	12	13	14	15	17
5.0–7.4	2	3	5	8	10	12	14	16	17	19	21
7.5–9.9	3	5	8	12	15	17	20	22	22	23	24
10.0–12.4	4	6	10	15	19	21	23	24	25	26	27
12.5–14.9	4	7	12	18	22	23	25	26	27	28	29
15.0–19.9	5	8	13	20	23	24	26	27	28	29	31
20.0–24.9	6	10	17	23	25	27	29	30	31	32	34
25.0–29.9	7	12	20	25	27	29	31	32	33	35	36
30.0–34.9	8	14	22	26	29	31	33	35	36	37	39
35.0–39.9	9	16	23	28	30	32	35	36	37	39	41
40.0–49.9	10	17	24	29	32	34	36	38	39	41	42
50.0–59.9	12	21	26	31	34	36	39	41	42	44	46
60.0–69.9	14	22	27	33	36	39	42	43	45	47	49
70.0–79.9	16	23	29	35	38	41	44	46	47	49	51
80.0–89.9	17	25	30	36	40	42	46	48	49	51	54
90.0–99.9	19	26	31	38	42	44	48	50	51	53	56
100.0–119.9	21	26	32	39	43	46	49	52	53	55	58
120.0–139.9	22	28	35	42	46	49	52	55	56	59	61
140.0–159.9	23	30	36	44	48	51	55	58	59	62	65
160.0–179.9	25	31	38	46	50	54	58	60	62	65	67
180.0–199.9	26	32	40	48	52	56	60	63	65	67	70
>199.9	26	33	41	49	54	58	62	65	67	69	73

[56 FR 7233, Feb. 21, 1991]

Appendix VII to Part 266—Health-Based Limits for Exclusion of Waste-Derived Residues*

Metals—TCLP Extract Concentration Limits

Constituent	CAS No.	Concentration limits (mg/L)
Antimony	7440–36–0	1xE+00
Arsenic	7440–38–2	5xE+00
Barium	7440–39–3	1xE+02
Beryllium	7440–41–7	7xE−03
Cadmium	7440–43–9	1xE+00
Chromium	7440–47–3	5xE+00
Lead	7439–92–1	5xE+00
Mercury	7439–97–6	2xE−01
Nickel	7440–02–0	7xE+01
Selenium	7782–49–2	1xE+00

Metals—TCLP Extract Concentration Limits—Continued

Constituent	CAS No.	Concentration limits (mg/L)
Silver	7440–22–4	5xE+00
Thallium	7440–28–0	7xE+00

Nonmetals—Residue Concentration Limits

Constituent	CAS No.	Concentration limits for residues (mg/kg)
Acetonitrile	75–05–8	2xE−01
Acetophenone	98–86–2	4xE+00
Acrolein	107–02–8	5xE−01
Acrylamide	79–06–1	2xE−04
Acrylonitrile	107–13–1	7xE−04

NONMETALS—RESIDUE CONCENTRATION LIMITS—Continued

Constituent	CAS No.	Concentration limits for residues (mg/kg)
Aldrin	309–00–2	2xE – 05
Allyl alcohol	107–18–6	2xE – 01
Aluminum phosphide	20859–73–8	1xE – 02
Aniline	62–53–3	6xE – 02
Barium cyanide	542–62–1	1xE+00
Benz(a)anthracene	56–55–3	1xE – 04
Benzene	71–43–2	5xE – 03
Benzidine	92–87–5	1xE – 06
Bis(2-chloroethyl) ether	111–44–4	3xE – 04
Bis(chloromethyl) ether	542–88–1	2xE – 06
Bis(2-ethylhexyl) phthalate	117–81–7	3xE+01
Bromoform	75–25–2	7xE – 01
Calcium cyanide	592–01–8	1xE – 06
Carbon disulfide	75–15–0	4xE+00
Carbon tetrachloride	56–23–5	5xE – 03
Chlordane	57–74–9	3xE – 04
Chlorobenzene	108–90–7	1xE+00
Chloroform	67–66–3	6xE – 02
Copper cyanide	544–92–3	2xE – 01
Cresols (Cresylic acid)	1319–77–3	2xE+00
Cyanogen	460–19–5	1xE+00
DDT	50–29–3	1xE – 03
Dibenz(a, h)-anthracene	53–70–3	7xE – 06
1,2-Dibromo-3-chloropropane	96–12–8	2xE – 05
p-Dichlorobenzene	106–46–7	7.5xE – 02
Dichlorodifluoromethane	75–71–8	7xE+00
1,1-Dichloroethylene	75–35–4	5xE – 03
2,4-Dichlorophenol	120–83–2	1xE – 01
1,3-Dichloropropene	542–75–6	1xE – 03
Dieldrin	60–57–1	2xE – 05
Diethyl phthalate	84–66–2	3xE+01
Diethylstilbesterol	56–53–1	7xE – 07
Dimethoate	60–51–5	3xE – 02
2,4-Dinitrotoluene	121–14–2	5xE – 04
Diphenylamine	122–39–4	9xE – 01
1,2-Diphenylhydrazine	122–66–7	5xE – 04
Endosulfan	115–29–7	2xE – 03
Endrin	72–20–8	2xE – 04
Epichlorohydrin	106–89–8	4xE – 02
Ethylene dibromide	106–93–4	4xE – 07
Ethylene oxide	75–21–8	3xE – 04
Fluorine	7782–41–4	4xE+00
Formic acid	64–18–6	7xE+01
Heptachlor	76–44–8	8xE – 05
Heptachlor epoxide	1024–57–3	4xE – 05
Hexachlorobenzene	118–74–1	2xE – 04
Hexachlorobutadiene	87–68–3	5xE – 03
Hexachlorocyclopentadiene	77–47–4	2xE – 01
Hexachlorodibenzo-p-dioxins	19408–74–3	6xE – 08
Hexachloroethane	67–72–1	3xE – 02
Hydrazine	302–01–1	1xE – 04
Hydrogen cyanide	74–90–8	7xE – 05
Hydrogen sulfide	7783–06–4	1xE – 06
Isobutyl alcohol	78–83–1	1xE+01
Methomyl	16752–77–5	1xE+00
Methoxychlor	72–43–5	1xE – 01
3-Methylcholanthrene	56–49–5	4xE – 05
4,4′-Methylenebis (2-chloroaniline).	101–14–4	2xE – 03
Methylene chloride	75–09–2	5xE – 02
Methyl ethyl ketone (MEK)	78–93–3	2xE+00
Methyl hydrazine	60–34–4	3xE – 04
Methyl parathion	298–00–0	2xE – 02
Naphthalene	91–20–3	1xE+01
Nickel cyanide	557–19–7	7xE – 01
Nitric oxide	10102–43–9	4xE+00
Nitrobenzene	98–95–3	2xE – 02
N-Nitrosodi-n-butylamine	924–16–3	6xE – 05
N-Nitrosodiethylamine	55–18–5	2xE – 06
N-Nitroso-N-methylurea	684–93–5	1xE – 07
N-Nitrosopyrrolidine	930–55–2	2xE – 04
Pentachlorobenzene	608–93–5	3xE – 02
Pentachloronitrobenzene (PCNB).	82–68–8	1xE – 01
Pentachlorophenol	87–86–5	1xE+00
Phenol	108–95–2	1xE+00
Phenylmercury acetate	62–38–4	3xE – 03
Phosphine	7803–51–2	1xE – 02
Polychlorinated biphenyls, N.O.S.	1336–36–3	5xE – 05
Potassium cyanide	151–50–8	2xE+00
Potassium silver cyanide	506–61–6	7xE+00
Pronamide	23950–58–5	3xE+00
Pyridine	110–86–1	4xE – 02
Reserpine	50–55–5	3xE – 05
Selenourea	630–10–4	2xE – 01
Silver cyanide	506–64–9	4xE+00
Sodium cyanide	143–33–9	1xE+00
Strychnine	57–24–9	1xE – 02
1,2,4,5-Tetrachlorobenzene	95–94–3	1xE – 02
1,1,2,2-tetrachloroethane	79–34–5	2xE – 03
Tetrachloroethylene	127–18–4	7xE – 01
2,3,4,6-Tetrachlorophenol	58–90–2	1xE – 02
Tetraethyl lead	78–00–2	4xE – 06
Thiourea	62–56–6	2xE – 04
Toluene	108–88–3	1xE+01
Toxaphene	8001–35–2	5xE – 03
1,1,2-Trichloroethane	79–00–5	6xE – 03
Trichloroethylene	79–01–6	5xE – 03
Trichloromonofluoromethane	75–69–4	1xE+01
2,4,5-Trichlorophenol	95–95–4	4xE+00
2,4,6-Trichlorophenol	88–06–2	4xE+00
Vanadium pentoxide	1314–62–1	7xE – 01
Vinyl chloride	75–01–4	2xE – 03

*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 limits specified in §268.43 of this chapter for FO39 nonwastewaters. See §266.112(b)(2)(i).

[56 FR 7234, Feb. 21, 1991; 56 FR 32691, July 17, 1991, as amended at 58 FR 59603, Nov. 9, 1993]

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

Volatiles	Semivolatiles
Benzene	Bis(2-ethylhexyl)phthalate
Toluene	Naphthalene
Carbon tetrachloride	Phenol
Chloroform	Diethyl phthalate
Methylene chloride	Butyl benzyl phthalate

Volatiles	Semivolatiles
Trichloroethylene	2,4–Dimethylphenol
Tetra chloroethylene	o-Dichlorobenzene
1,1,1–Trichloroethane	m-Dichlorobenzene
Chlorobenzene	p-Dichlorobenzene
cis-1,4–Dichloro-2-butene	Hexachlorobenzene
Bromochloromethane	2,4,6–Trichlorophenol
Bromodichloromethane	Fluoranthene
Bromoform	o-Nitrophenol
Bromomethane	1,2,4–Trichlorobenzene
Methylene bromide	o-Chlorophenol
Methyl ethyl ketone	Pentachlorophenol
	Pyrene
	Dimethyl phthalate
	Mononitrobenzene
	2,6–Toluene diisocyanate
	Polychlorinated dibenzo-p-dioxins [1]
	Plychlorinated dibenzo-furans [1]

[1] Analyses for polychlorinated dibenzo-p-dioxins and polychlorinated dibenzo-furans 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 F039 nonwastewater concentration limit.

[64 FR 53076, Sept. 30, 1999, as amended at 64 FR 63213, Nov. 19, 1999]

APPENDIX IX TO PART 266—METHODS MANUAL FOR COMPLIANCE WITH THE BIF REGULATIONS

Burning Hazardous Waste in Boilers and Industrial Furnaces

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SECTION 1.0 INTRODUCTION

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

1. Performance Specifications for Continuous Emission Monitoring (CEM) of Carbon Monoxide, Oxygen, and Hydrocarbons in Stack Gases.
2. Sampling and Analytical (S&A) Methods for Multiple Metals, Hexavalent Chromium, HCl and Chlorine, Polychlorinated Dibenzo-p-dioxins and Dibenzofurans, and Aldehydes and Ketones.
3. Procedures for Estimating the Toxicity Equivalency of Chlorinated Dibenzo-p-dioxin and Dibenzofuran Congeners.
4. Hazardous Waste Combustion Air Quality Screening Procedures (HWCAQSP).
5. Simplified Land Use Classification Procedure for Compliance vith Tier I and Tier II Limits.
6. Statistical Methodology for Bevill Residue Determinations.
7. Procedures for Determining Default Values for Air Pollution Control System Removal Efficiencies.
8. Procedures for Determining Default Values for Partitioning of Metals, Ash, and Total Chloride/Chlorine.
9. Alternate Methodology for Implementing Metals Controls.

Additional methods referenced in subpart H of part 266 but not included in this document can be found in 40 CFR parts 60 and 61, and ''Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods'' (SW–846).

The CEM performance specifications of section 2.0, the S&A methods of section 3.0

and the toxicity equivalency procedure for dioxins and furans of section 4.0 are required procedures for determining compliance with BIF regulations. The CEM performance specifications and the S&A methods are interim. The finalized CEM performance specifications and methods will be published in SW–846 or 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 *Applicability and Principle*

2.1.1.1 Applicability. These performance specifications apply to carbon monoxide (CO) and oxygen (O_2) 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 each 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.

2.1.2.8 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.

2.1.2.9 Relative Accuracy (RA). A comparison of the CEMS response to a value measured by a performance test method (PTM). The PA test is used to validate the calibration technique and verify the ability of the CEMS to provide representative and accurate measurements.

2.1.2.10 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 0^2). These methods are found in 40 CFR part 60, appendix A.

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

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. 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 2.1.3.3 to determine whether the location would cause failure of the relative accuracy test.

2.1.3.1.1 For extractive or point in-situ CEMSs, the measurement point should be within or centrally located over the centroidal area of the stack or duct cross section.

2.1.3.1.2 For cross-stack CEMSs, the effective measurement path should (1) have at least 70 percent of the path within the inner 50 percent of the stack or duct cross-sectional area or (2) be centrally located over any part of the centroidal area.

2.1.3.1.3 Both the CO and O_2 monitors should be installed at the same general location. If this is not possible, they may be installed at different locations if the effluent gases at both sample locations are not stratified and there is no in-leakage of air between sampling locations.

2.1.3.2 Performance Test Method (PTM) Measurement Location and Traverse Points.

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 O_2 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.

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 Tier II format definitions are established in 40 CFR part 266, subpart H.

TABLE 2.1–1—PERFORMANCE SPECIFICATIONS OF CO AND O_2 MONITORS

Parameter	CO monitors		O_2 monitors
	Low range	High range	
Calibration drift 24 hours.	<6 ppm[1]	<90 ppm	<0.5% O_2
Calibration error.	<10 ppm[1]	<150 ppm	<0.5% O_2
Response time.	<2 min	<2 min	<2 min
Relative accuracy[2].	(3)	(3)	(incorporated in CO RA calculation)

[1] For Tier II, CD and CE are <3% and <5% of twice the permit limit, respectively.

[2] Expressed as the sum of the mean absolute value plus the 95% confidence interval of a series of measurements.

[3] The greater of 10% of PTM or 10 ppm.

TABLE 2.1–2—CEMS SPAN VALUES FOR CO AND O_2 MONITORS

	CO monitors		O_2 monitors (percent)
	Low range (ppm)	High range (ppm)	
Tier I rolling average format.	200	3,000	25
Tier II rolling average format.	2 × permit limit.	3,000	25

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 O_2 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, and 0–5 percent for the O_2 analyzer (for Tier I).

2.1.4.2.2 The high-level concentration for the CO or O_2 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 O_2 for the O_2 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 O_2 for the O_2 analyzer.

2.1.4.4 Response Time. The response time for the CO or O_2 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 O_2 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 3 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 O_2 monitor calibration response must not drift or deviate from the reference value by more than 0.5 percent O_2 at both zero and high levels.

2.1.4.6 Relative Accuracy. The result of the PA test of the CO CEMS (which incorporates the O_2 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 O_2 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 O_2 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 facility is operating under normal conditions. RA testing for CO and O_2 shall be conducted simultaneously so that the results can be calculated for CO corrected to 7 percent O_2. 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 system, 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. Record the time (upscale response time) required to reach 95 percent of the final stable value.

2.1.6.2.2 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.

2.1.6.3 Calibration Error Test Procedure.

2.1.6.3.1 Sampling Strategy. Challenge each monitor (both low- and high-range CO and O_2) 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

Measurement point	GAS Concentration Ranges		
	CO, ppm		O_2, percent
	Low range [1]	High range	
1	0–40	0–600	0–2
2	60–80	900–1200	8–10
3	140–160	2100–2400	14–16

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

SOURCE:	DATE:
MONITOR:	LOCATION:
SERIAL NUMBER:	SPAN:

LOW RANGE	
HIGH RANGE	

	DAY	DATE	TIME	CALIBRATION VALUE	MONITOR RESPONSE	DIFFERENCE	PERCENT OF SPAN*
ZERO/ LOW LEVEL	1						
	2						
	3						
	4						
	5						
	6						
	7						
HIGH LEVEL	1						
	2						
	3						
	4						
	5						
	6						
	7						

*Acceptance Criteria : ≤ 5% of span each day for seven days.

Figure 2.1–1 *Calibration Drift Determination*

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.

2.1.6.3.1.2 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.

SOURCE:	DATE:
MONITOR:	LOCATION:
SERIAL NUMBER:	SPAN:

LOW RANGE	
HIGH RANGE	

RUN NUMBER	CALIBRATION VALUE	MONITOR RESPONSE	DIFFERENCE		
			Zero/Low	Mid	High
1 - Zero					
2 - Mid					
3 - High					
4 - Mid					
5 - Zero					
6 - High					
7- Zero					
8 - Mid					
9 - High					
		MEAN DIFFERENCE =			
		CALIBRATION ERROR =	%	%	%

Figure 2.1–2 *Calibration Error Determination*

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_2 and CO, respectively. Make a sample traverse of at least 21 minutes, sampling for 7 minutes at each of three 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 ($\bar{d}$). Calculate d of the difference of a data set using Equation 1.

$$\bar{d} = \frac{1}{n}\sum_{i=1}^{n} d_i \qquad \text{(Eq. 1)}$$

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.

$$s_d = \sqrt{\frac{\sum_{i=1}^{n} d_i^2 - \frac{\sum_{i=1}^{n} d_i^2}{n}}{n-1}} \qquad \text{(Eq. 2)}$$

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

$$CC = t_{0.975}\frac{S_d}{\sqrt{n}} \qquad \text{(Eq. 3)}$$

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

TABLE 2.1–4—T-VALUES

n[a]	$t_{0.975}$	n[a]	$t_{0.975}$	n[a]	$t_{0.975}$
2	12.706	7	2.447	12	2.201
3	4.303	8	2.365	13	2.179
4	3.182	9	2.306	14	2.160
5	2.776	10	2.662	15	2.145
6	2.571	11	2.228	16	2.131

[a] The values in this table are already corrected for n − 1 degrees of freedom. Use n equal to the number of individual values.

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

$$RA = \frac{|\bar{d}| + |CC|}{\overline{PTM}} \times 100 \qquad \text{(Eq. 4)}$$

where:
$|\bar{d}|$=Absolute value of the mean of the differences (Equation 1).
|CC|=Absolute value of the confidence coefficient (Equation 3).
$\overline{PTM}$=Average reference value.

2.1.7.5 Calibration Error. Calculate CE using Equation 5.

$$CE = \left|\frac{\bar{d}}{FS}\right| \times 100 \qquad \text{(Eq. 5)}$$

where:
$\bar{d}$=Mean difference between CEMS response and the known reference concentration.

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*

1. Jahnke, James A. and G.J. Aldina, ''Handbook: Continuous Air Pollution Source Monitoring Systems,'' U.S. Environmental Protection Agency Technology Transfer, Cincinnati, Ohio 45268, EPA–625/6–79–005, June 1979.

2. ''Gaseous Continuous Emissions Monitoring Systems-Performance Specification Guidelines for SO_2, NO_x, CO_2, O_2, and TRS.'' U.S. Environmental Protection Agency OAQPS, ESED, Research Triangle Park, North Carolina 27711, EPA–450/3–82–026, October 1982.

3. ''Quality Assurance Handbook for Air Pollution Measurement Systems: Volume I. Principles.'' U.S. Environmental Protection Agency ORD/EMSL, Research Triangle Park, North Carolina, 27711, EPA–600/9–76–006, December 1984.

4. Michie, Raymond, M. Jr., et. al., ''Performance Test Results and Comparative Data for Designated Reference Methods for Carbon Monoxide,'' U.S. Environmental Protection Agency ORD/EMSL, Research Triangle Park, North Carolina, 27711, EPA–600/S4–83–013, September 1982.

5. Ferguson, B.B., R.E. Lester, and W.J. Mitchell, ''Field Evaluation of Carbon Monoxide and Hydrogen Sulfide Continuous Emission Monitors at an Oil Refinery,'' U.S. Environmental Protection Agency, Research Triangle Park, North Carolina, 27711, EPA–600/4–82–054, August 1982.

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 conformance of the CEMS with the specifications.

2.2.2 *Definitions*

2.2.2.1 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:

2.2.2.1.1 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.

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

2.2.2.1.3 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.

2.2.2.2 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.

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

2.2.2.4 Calibration Gas. A known concentration of a gas in an appropriate diluent gas.

2.2.2.5 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.

2.2.2.6 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.

2.2.2.7 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.

2.2.2.8 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.

2.2.2.10 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.

2.2.3 *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 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 2.2.3.2. 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 CEMs 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.

SOURCE:	DATE:
MONITOR:	LOCATION:
SERIAL NUMBER:	SPAN:

	DAY	DATE	TIME	CALIBRATION VALUE	MONITOR RESPONSE	DIFFERENCE	PERCENT OF SPAN*
ZERO/ LOW LEVEL	1						
	2						
	3						
	4						
	5						
	6						
	7						
HIGH LEVEL	1						
	2						
	3						
	4						
	5						
	6						
	7						

*Acceptance Criteria : ≤ 3% of span each day for seven days.

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.

$$CE = \left| \frac{\bar{d}}{FS} \right| \times 100 \qquad \text{(Eq. 1)}$$

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.

SOURCE:	DATE:
MONITOR:	LOCATION:
SERIAL NUMBER:	SPAN:

RUN NUMBER	CALIBRATION VALUE	MONITOR RESPONSE	DIFFERENCE		
			Zero/Low	Mid	High
1 - Zero					
2 - Mid					
3 - High					
4 - Mid					
5 - Zero					
6 - High					
7- Zero					
8 - Mid					
9 - High					
		MEAN DIFFERENCE =			
		CALIBRATION ERROR =	%	%	%

Figure 2.2-2 Calibration Error Determination

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*

1. Measurement of Volatile Organic Compounds-Guideline Series. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina, 27711, EPA–450/2–78–041, June 1978.

2. Traceability Protocol for Establishing True Concentrations of Gases Used for Calibration and Audits of Continuous Source Emission Monitors (Protocol No. 1). U.S. Environmental Protection Agency ORD/EMSL, Research Triangle Park, North Carolina, 27711, June 1978.

3. Gasoline Vapor Emission Laboratory Evaluation-Part 2. U.S. Environmental Protection Agency, OAQPS, Research Triangle Park, North Carolina, 27711, EMB Report No. 76–GAS–6, August 1975.

3.0 SAMPLING AND ANALYTICAL METHODS

NOTE: The sampling and analytical methods to the BIF manual are published in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication SW–846, as incorporated by reference in § 260.11 of this chapter.

SECTION 4.0 PROCEDURE FOR ESTIMATING THE TOXICITY EQUIVALENCE OF CHLORINATED DIBENCO–P–DIOXIN AND DIBENZOFURAN CONGENERS

PCDDs and PCDFs must be determined using the method given in section 3.4 of this document. In this method, individual congeners or homologues[1] 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 Dibenzofurans (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 2,7,3,8-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. 513–569–7562).

TABLE 4.0–1.—2,3,7,8–TCDD TOXICITY EQUIVALENCE FACTORS (TEFs)[1]

Compound	I–TEFs, 89
Mono-, Di-, and TriCDDs	0
2,3,7,8–TCDD	1
Other TCDDs	0
2,3,7,8–PeCDD	0.5
Other PeCDDs	0

[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

Compound	I–TEFs, 89
2,3,7,8–HxCDD	0.1
Other HxCDDs	0
2,3,7,8–HpCDD	0.01
Other HpCDDs	0
OCDD	0.001
Mono-, Di-, and TriCDFs	0
2,3,7,8–TCDF	0.1
Other TCDFs	0
1,2,3,7,8–PeCDF	0.05
2,3,4,7,8–PeCDF	0.5
Other PeCDFs	0
2378–HxCDFs	0.1
Other HxCDFs	0
2378–HpCDFs	0.01
Other HpCDFs	0
OCDF	0.001

Reference: Adapted from NATO/CCMS, 1988a.

[1] Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and Dibenzofurans (CDDs and CDFs) 1989 Update EPA/625/3–89/016, March 1989.

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 between 1 and 5 km from the facility. 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 –450/4–88–010, 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 450/2–78–027R, 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 coefficients [1] 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), or
- Significant distance between the facility's stacks and the site boundary [guidance on determining whether a distance is ''significant'' is provided in Step 6(B) 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.

[1] The term dispersion coefficient refers to the change in ambient air concentration (μg/m^3) resulting from a source with an emission rate of 1 g/sec.

The steps involved in screening methodology are as follows:

Step 1. Define Source Characteristics
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:[2]

Stack Data:	Stack No. 1	Stack No. 2	Stack No. 3
Physical stack height (m)	_____	_____	_____
Exhaust temperature (°K)	_____	_____	_____
Flow rate (m^3/sec) ...	_____	_____	_____

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):

_____(m)	_____(m)	_____(m)
0–0.5 km	0–2.5 km	0–5 km

Distance from facility to nearest shoreline (km) _____

Valley width (km) _____

Step 2: Determine the Applicability of the Screening Procedure

Fill in the following data:

	Yes	No
Is the facility in a valley < km in width?	_____	_____
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)	_____	_____
Is the distance to the nearest shoreline <5 km? (Only applies to facilities with stacks ≤20 meters in height)	_____	_____
For the building listed in Step 1, is the closest property boundary <5 times the building height or <5 times the maximum projected building width? (Only applies to facilities with a stack height <2.5 times the building height)	_____	_____

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=HVT

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 (m^3/sec)
T=Exhaust temperature (°K)

Complete the following table to compute the ''K'' value for each stack:

Stack No.	Stack height (m)	×	Flow rate (m^3/sec)	×	Exit temp (°K)	=	K
1	_____	×	_____	×	_____	=	_____
2	_____	×	_____	×	_____	=	_____
3	_____	×	_____	×	_____	=	_____

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. _____

[2] Worksheet space is provided for three stacks. If the facility has additional stacks, copy the form and revise stack identification numbers for 4, 5, etc.

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:

CEP (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[3], 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.[4]

[3]The 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.

[4]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.

TABLE 5.0–1.—ESTIMATED PLUME RISE (IN METERS) BASED ON STACK EXIT FLOW RATE AND GAS TEMPERATURE

	Exhaust Temperature (°K)										
Flow rate (m^3/s)	<325	325–349	350–399	400–449	450–499	500–599	600–699	700–799	800–999	1000–1499	>1499
<0.5	0	0	0	0	0	0	0	0	0	0	0
0.5–0.9	0	0	0	0	0	0	0	0	1	1	1
1.0–1.9	0	0	0	0	1	1	2	3	3	3	4
2.0–2.9	0	0	1	3	4	4	6	6	7	8	9
3.0–3.9	0	1	2	5	6	7	9	10	11	12	13
4.0–4.9	1	2	4	6	8	10	12	13	14	15	17
5.0–7.4	2	3	5	8	10	12	14	16	17	19	21
7.5–9.9	3	5	8	12	15	17	20	22	22	23	24
10.0–12.4	4	6	10	15	19	21	23	24	25	26	27
12.5–14.9	4	7	12	18	22	23	25	26	27	28	29
15.0–19.9	5	8	13	20	23	24	26	27	28	29	31
20.0–24.9	6	10	17	23	25	27	29	30	31	32	34
25.0–29.9	7	12	20	25	27	29	31	32	33	35	36
30.0–34.9	8	14	22	26	29	31	33	35	36	37	39
35.0–39.9	9	16	23	28	30	32	35	36	37	39	41
40.0–49.9	10	17	24	29	32	34	36	38	39	41	42
50.0–59.9	12	21	26	31	34	36	39	41	42	44	46
60.0–69.9	14	22	27	33	36	39	42	43	45	47	49
70.0–79.9	16	23	29	35	38	41	44	46	47	49	51
80.0–89.9	17	25	30	36	40	42	46	48	49	51	54
90.0–99.9	19	26	31	38	42	44	48	50	51	53	56
100.0–119.9	21	26	32	39	43	46	49	52	53	55	58
120.0–139.9	22	28	35	42	46	49	52	55	56	59	61
140.0–159.9	23	30	36	44	48	51	55	58	59	62	65
160.0–179.9	25	31	38	46	50	54	58	60	62	65	67
180.0–199.9	26	32	40	48	52	56	60	63	65	67	70
>199.9	26	33	41	49	54	58	62	65	67	69	73

TABLE 5.0–2—SELECTION OF GENERIC SOURCE NUMBER

Effective stack height (m)	Generic source No.
<10.0	1
10.0–14.9	2
15.0–19.9	3
20.0–24.9	4
25.0–30.9	5
31.0–41.9	6
42.0–52.9	7
53.0–64.9	8
65.0–122.9	9
113.0+	10
Downwash	11

TABLE 5.0–3.—CLASSIFICATION OF LAND USE TYPES

Type [1]	Description	Urban or rural designation [2]
I1	Heavy Industrial	Urban
I2	Light/Moderate Industrial	Urban

TABLE 5.0–3.—CLASSIFICATION OF LAND USE TYPES—Continued

Type [1]	Description	Urban or rural designation [2]
CI	Commercial	Urban
R1	Common Residential (Normal Easements).	Rural
R2	Compact Residential (Single Family).	Urban
R3	Compact Residential (Multi-Family).	Rural
R4	Estate Residential (Multi-Acre Plots).	Rural
A1	Metropolitan Natural	Rural
A2	Agricultural	Rural
A3	Undeveloped (Grasses/Weeds)	Rural
A4	Undeveloped (Heavily Wooded)	Rural
A5	Water Surfaces	Rural

[1] EPA, Guideline on Air Quality Models (Revised), EPA–450/2–78–027R, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina, July, 1986.

[2] Auer, August H. Jr., ''Correlation of Land Use and Cover with meteorological Anomalies,'' *Journal of Applied Meteorology,* pp. 636–643, 1978.

Distance range (km)	Effective stack—height (m) [see step 5(B)]	–	Maximum terrain—rise (m) (see step 1)	=	TAESH(m)
0.0–0.5	_____	–	_____	=	_____
>0.5–2.5	_____	–	_____	=	_____
>2.5–5.0	_____	–	_____	=	_____

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.

Distance range (km)	Generic source No. (after terrain adjustment)
0.0–0.5	_____
>0.5–2.5	_____
>2.5–5.0	_____

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 Used to Estimate Percent Urban Land Use:	Visual	Planimeter
	_____	_____
Estimated Percentages.	Urban	Rural
	_____	_____

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).	Urban	Rural
	_____	_____

(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.

Terrain adjusted effective stack height range (m)	Distance (m)	
	Urban	Rural
1–9.9	200	200
10–14.9	200	250
15–19.9	200	250
20–24.9	200	350
25–30.9	200	450
31–41.9	200	550
42–52.9	250	800
53–64.9	300	1000
65–112.9	400	1200
113+	700	2500

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 fenceline distance listed in Step 6(B).[7] Record the maximum average hourly dispersion coefficient encountered.

Maximum Average Hourly Dispersion Coefficient=____($\mu g/m^3/g/sec$)

(2) For each of the three distance-based generic source numbers listed in Step 5(E), search down the appropriate generic source number columns, beginning at the minimum

[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.

fenceline distance listed in Step 6(B). Note that different columns may be used for each of the three distance ranges if there is a need for terrain adjustment. Record the maximum dispersion coefficient for each generic source number.

Distance range (km)	Generic source No. [from Step 5(E)]	Maximum dispersion coefficient (μg/m³/m/sec)
0.0–0.5	_____	_____
>0.5–2.5.	_____	_____
>2.5–5.0.	_____	_____
>5.0–20.0.	_____	_____

TABLE 5.0–4.—ISCST PREDICTED MAXIMUM CONCENTRATIONS (μ G/M³)[a] FOR HAZARDOUS WASTE COMBUSTORS USING URBAN CONDITIONS

Distance (KM)	Generic Source #1 (<10M)	Generic Source #2 (10M)	Generic Source #3 (15M)	Generic Source #4 (20M)	Generic Source #5 (25M)	Generic Source #6 (31M)	Generic Source #7 (42M)	Generic Source #8 (53M)	Generic Source #9 (65M)	Generic Source #10 (113M)	Generic Source #11 (Downwash)
0.20	680.1	517.5	368.7	268.7	168.5	129.8	63.4	30.1	18.4	1.6	662.3
0.25	521.9	418.2	303.7	232.6	163.0	124.2	67.6	38.5	19.8	3.2	500.0
0.30	407.7	351.7	256.2	199.0	147.0	118.3	63.5	41.5	25.0	4.2	389.3
0.35	326.2	304.2	221.6	172.7	130.2	107.9	60.0	40.5	27.3	5.4	311.9
0.40	268.5	268.5	195.6	152.5	115.7	97.1	59.6	37.8	27.4	5.8	268.5
0.45	240.8	240.7	175.4	136.7	103.9	87.6	56.6	37.2	26.3	5.8	240.8
0.50	218.5	218.5	159.2	124.1	94.4	79.7	52.9	36.7	24.7	5.8	218.5
0.55	200.3	200.3	145.9	113.8	86.5	73.1	49.2	35.4	24.5	6.6	200.3
0.60	185.1	185.1	134.9	105.1	80.0	67.6	45.8	33.8	24.3	7.1	185.1
0.65	172.2	172.2	125.5	97.8	74.4	62.9	42.7	32.0	23.7	7.4	172.2
0.70	161.2	161.2	117.4	91.6	69.6	58.9	40.1	30.2	22.9	7.5	161.2
0.75	151.6	151.6	110.5	86.1	65.5	55.4	37.7	28.6	22.0	7.5	151.6
0.80	143.2	143.2	104.4	81.4	61.9	52.3	35.6	27.1	21.1	7.4	143.2
0.85	135.8	135.8	99.0	77.2	58.7	49.6	33.8	25.7	20.2	7.2	135.8
0.90	129.2	129.2	94.2	73.4	55.8	47.2	32.1	24.5	19.3	7.0	129.2
0.95	123.3	123.3	89.9	70.1	53.3	45.0	30.7	23.4	18.5	6.8	123.3
1.00	118.0	118.0	86.0	67.0	51.0	43.1	29.4	22.4	17.7	6.5	118.0
1.10	108.8	108.0	79.3	61.8	47.0	39.7	27.1	20.6	16.4	6.5	108.8
1.20	101.1	101.1	73.7	57.4	43.7	36.9	25.2	19.2	15.2	6.4	101.1
1.30	94.6	94.6	68.9	53.7	40.9	34.5	23.5	18.0	14.2	6.3	94.6
1.40	89.0	89.0	64.8	50.6	38.5	32.5	22.1	16.9	13.4	6.1	89.0
1.50	84.1	84.1	61.3	47.8	36.3	30.7	20.9	16.0	12.7	5.9	84.1
1.60	79.8	79.8	58.2	45.4	34.5	29.2	19.9	15.2	12.0	5.6	79.8
1.70	76.0	76.0	55.4	43.2	32.9	27.8	18.9	14.4	11.4	5.4	76.0
1.80	72.7	72.7	53.0	41.3	31.4	26.5	18.1	13.8	10.9	5.2	72.7
1.90	69.6	69.6	50.7	39.6	30.1	25.4	17.3	13.2	10.5	5.0	69.6
2.00	66.9	66.9	48.8	38.0	28.9	24.4	16.7	12.7	10.1	4.8	66.9
2.25	61.1	61.1	44.5	34.7	26.4	22.3	15.2	11.6	9.2	4.4	61.1
2.50	56.4	56.4	41.1	32.1	24.4	20.6	14.0	10.7	8.5	4.1	56.4
2.75	52.6	52.6	38.3	29.9	22.7	19.2	10.0	10.0	7.9	3.8	52.6
3.00	49.3	49.3	35.9	28.0	21.3	18.0	9.4	9.4	7.4	3.6	49.3
4.00	40.2	40.2	29.3	22.8	17.4	14.7	7.6	7.6	6.1	2.9	40.2
5.00	34.5	34.5	25.2	19.6	14.9	12.6	6.6	6.6	5.2	2.5	34.5
6.00	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7
7.00	27.8	27.8	27.8	37.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8
8.00	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
9.00	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
10.00	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3
15.00	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6

TABLE 5.0–4.—ISCST PREDICTED MAXIMUM CONCENTRATIONS (μ G/M³)[a] FOR HAZARDOUS WASTE COMBUSTORS USING URBAN CONDITIONS—Continued

Distance (KM)	Generic Source #1 (<10M)	Generic Source #2 (10M)	Generic Source #3 (15M)	Generic Source #4 (20M)	Generic Source #5 (25M)	Generic Source #6 (31M)	Generic Source #7 (42M)	Generic Source #8 (53M)	Generic Source #9 (65M)	Generic Source #10 (113M)	Generic Source #11 (Downwash)
20.00	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.01	15.0

[a] Based on a 1 Gram/Second Emission Rate

TABLE 5.0–5.—ISCST PREDICTED MAXIMUM CONCENTRATIONS (μ G/M³)[a] FOR HAZARDOUS WASTE COMBUSTORS USING RURAL CONDITIONS

Distance (KM)	Generic source #1 (<10M)	Generic source #2 (10M)	Generic source #3 (15M)	Generic source #4 (20M)	Generic source #5 (25M)	Generic source #6 (31M)	Generic source #7 (42M)	Generic source #8 (53M)	Generic source #9 (65M)	Generic source #10 (113M)	Generic source #11 (Downwash)
0.20	1771.1	670.3	308.6	176.8	102.8	76.5	28.0	10.1	3.5	0.0	1350.8
0.25	1310.6	678.4	316.9	183.6	104.6	71.8	38.0	17.6	7.9	0.2	1227.3
0.30	1002.3	629.2	303.4	199.1	100.4	75.0	39.7	24.0	12.6	0.8	1119.3
0.35	798.4	569.6	282.3	200.7	117.0	71.1	36.3	25.9	16.8	1.9	1023.8
0.40	656.9	516.5	278.7	194.4	125.2	82.7	25.3	24.6	18.1	3.1	938.9
0.45	621.5	471.1	277.6	184.3	127.5	89.7	35.6	21.7	17.6	4.3	851.8
0.50	633.5	432.4	272.0	172.7	125.7	92.9	34.4	21.6	15.9	5.5	787.8
0.55	630.1	399.2	263.8	168.0	121.6	93.3	38.6	22.1	13.6	6.5	730.6
0.60	616.6	370.4	254.0	169.1	116.2	91.8	42.6	21.7	14.3	6.7	676.4
0.65	596.7	345.4	243.6	168.1	110.3	89.2	45.3	20.9	14.7	6.4	633.4
0.70	573.2	323.4	232.9	165.6	104.5	85.8	47.0	23.3	14.6	5.9	592.0
0.75	546.9	304.0	222.3	162.0	98.8	82.2	47.7	25.5	14.3	5.5	554.6
0.80	520.9	286.8	212.1	157.7	98.8	78.5	47.8	27.1	13.8	5.1	522.1
0.85	495.7	271.5	202.4	153.0	99.0	74.9	47.4	28.3	15.0	4.7	491.8
0.90	471.5	257.8	193.3	148.1	98.6	71.4	46.6	29.1	16.3	4.5	464.2
0.95	448.5	245.4	184.7	143.1	97.6	72.3	45.6	29.6	17.3	4.2	438.9
1.00	426.8	234.2	176.8	138.1	96.3	72.6	44.4	29.8	18.2	4.0	415.8
1.10	387.5	214.7	162.5	128.2	91.9	71.1	41.8	29.5	19.3	3.9	375.0
1.20	353.5	198.4	150.3	119.3	87.4	69.1	39.1	28.6	19.8	4.1	340.3
1.30	323.0	189.6	139.9	111.5	82.9	66.7	36.6	27.5	19.8	4.2	310.4
1.40	296.6	182.2	130.8	104.5	78.7	64.2	34.3	26.2	19.5	4.2	284.6
1.50	273.3	174.6	122.9	98.3	74.7	61.6	32.3	24.9	19.0	4.2	262.0
1.60	252.7	167.0	115.9	92.8	71.0	59.1	31.8	23.6	18.4	4.2	242.2
1.70	234.5	159.6	109.7	87.9	67.6	56.7	31.6	22.5	17.7	4.3	224.7
1.80	218.3	152.4	104.1	83.5	64.4	54.3	31.3	21.4	17.0	4.5	211.9
1.90	203.7	145.6	99.1	79.5	61.5	52.1	30.9	20.4	16.3	4.8	198.4
2.00	190.7	139.1	94.6	75.9	58.8	50.0	30.4	19.5	15.7	5.1	186.3
2.25	164.4	124.5	85.1	68.3	53.0	45.4	28.9	18.1	14.2	5.4	160.8
2.50	143.7	112.1	77.3	62.1	48.2	41.4	27.2	17.9	12.9	5.5	140.7
2.75	127.0	101.5	70.9	56.9	38.1	38.1	25.6	17.5	11.8	5.4	124.5
3.00	113.4	92.4	65.6	52.6	35.2	35.2	24.0	17.0	11.2	5.2	112.5

4.00	78.8	67.3	50.6	40.6	27.2	27.2	29.0	14.3	10.4	4.3	78.3
5.00	59.1	54.6	41.4	33.2	22.2	22.2	15.6	12.0	9.3	3.5	58.8
6.00	56.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7
7.00	40.4	40.4	40.4	40.4	40.4	40.4	40.4	40.4	40.4	40.4	40.4
8.00	35.8	35.8	35.8	35.8	35.8	35.8	35.8	35.8	35.8	35.8	35.8
9.00	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2
10.00	9.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4
15.00	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5
20.00	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9

[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 TAESH 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)).

Terrain	Distance from stack (m)	Generic source No.	Maximum hourly dispersion coefficient (>g/m ^{3}/g/sec)	Annual hourly ratio	Maximum annual dispersion coefficient (>g/m ^{3}/g/sec) [1]
Flat	0–20.0				
	0–0.5				
	≤0.5–2.5				
Rolling or Complex	≤2.5–5.0				
	≤5.0–20.0				

[1] Maximum hourly dispersion coefficient times annual/hourly ratio.

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.[8]

Stack No.	GEP stack height (m)	Flow rate (m ^{3}/sec)	Exit temp (°K)	Plume rise (m)	Effective stack height (m)
1	_____	_____	_____	_____	_____
2	_____	_____	_____	_____	_____
3	_____	_____	_____	_____	_____

Add an additional page if more than three stacks are involved. Circle the maximum and minimum effective stack heights.

(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:

$$\frac{\text{Maximum Effective Stack Height}}{\text{Minimum Effective Stack Height}} = _____$$

[8] Follow the procedure outlined in Step 4 of the basic screening procedure to determine the GEP for each stack. If a stack's physical height exceeds the maximum GEP, use the maximum GEP values. If a stack's physical height is less than the minimum GEP, use generic source number 11 in the subsequent steps of this analysis. Follow the procedure in Steps 5(A) and 5(B) to determine the effective height of each stack.

If the above ratio is greater than 1.25, proceed with the remaining steps. Otherwise, this option is less likely to significantly reduce the degree of conservatism in the screening method.

(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.

Shortest stack height (m)= _____

Maximum terrain rise in meters out to 5 km= _____

$$\frac{\text{Terrain Rise (m)}}{\text{Shortest Stack Height (m)}} \times 100 = _____\%$$

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).

	Stack No.		
	1	2	3
Generic Source Numbers	___	___	___

(D) Compute the TAESH and select generic source numbers (four sources located in nonflat terrain).

1. Compute the TAESH for all remaining stacks using the following equation:

HE–TR=TAESH

where:

HE=effective stack height (m)

TR=maximum terrain rise for each distance range (m)

TAESH=terrain-adjusted effective stack height (m)

USE THE TABLE BELOW TO CALCULATE THE TAESH FOR EACH STACK[9]

Distance Range (km)	Stack No.														
	0–0.5					>0,5–2.5					>2.5–5.0				
	HE	–	TR	=	TAESH	HE	–	TR	=	TAESH	HE	–	TR	=	TAESH
1	.....	–	.....	=	.....	.....	–	.....	=	.....	.....	–	.....	=	.....
2	.....	–	.....	=	.....	.....	–	.....	=	.....	.....	–	.....	=	.....
3	.....	–	.....	=	.....	.....	–	.....	=	.....	.....	–	.....	=	.....

[9] 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;

GENERIC SOURCE NUMBER AFTER TERRAIN ADJUSTED (IF NEEDED)

Stack No.	0–0.5 km	>0.5–2.5 km	>2.5–5.0 km
1	.....	.....	.....
2	.....	.....	.....
3	.....	.....	.....

(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 fenceline 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

[10] This applies to all stacks less than or equal to 10 meters regardless of the terrain classification.

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).

Worksheet 5.0-1 Dispersion Coefficient by Downwind Distance[1]

Distance	Stack 1	Stack 2	Stack 3
0.20			
0.25			
0.30			
0.35			
0.40			
0.45			
0.50			
0.55			
0.60			
0.65			
0.70			
0.75			
0.80			
0.85			
0.90			
0.95			
1.00			
1.10			
1.20			
1.30			
1.40			
1.50			
1.60			
1.70			
1.80			
1.90			
2.00			
2.25			
2.50			
2.75			
3.00			
4.00			
5.00			
6.00			
7.00			
8.00			
9.00			
10.00			
15.00			
20.00			

[1]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.

(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 the maximum emission rate of the pollutant.[11] Record these data in the spaces provided below.[12]

MAXIMUM ANNUAL EMISSION RATES (G/SEC)

Pollutant	Stack 1	Stack 2	Stack 3
	....	....	....

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):

Pollutant	Maximum hourly air concentration
	....

[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.

[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.

Worksheet 5.0-2 Maximum Hourly Ambient Air Concentration

Pollutant _____

Total Distance (km)	Stack 1 ER x DC = C	Stack 2 ER x DC = C	Stack 3 ER x DC = C	Summed Concentration from all Stacks
0.20	____ x ____ = ____	____ x ____ = ____	____ x ____ = ____	____
0.25	____ x ____ = ____	____ x ____ = ____	____ x ____ = ____	____
0.30	____ x ____ = ____	____ x ____ = ____	____ x ____ = ____	____
0.35	____ x ____ = ____	____ x ____ = ____	____ x ____ = ____	____
0.40	____ x ____ = ____	____ x ____ = ____	____ x ____ = ____	____
0.45	____ x ____ = ____	____ x ____ = ____	____ x ____ = ____	____
0.50	____ x ____ = ____	____ x ____ = ____	____ x ____ = ____	____
0.55	____ x ____ = ____	____ x ____ = ____	____ x ____ = ____	____
0.60	____ x ____ = ____	____ x ____ = ____	____ x ____ = ____	____
0.65	____ x ____ = ____	____ x ____ = ____	____ x ____ = ____	____
0.70	____ x ____ = ____	____ x ____ = ____	____ x ____ = ____	____
0.80	____ x ____ = ____	____ x ____ = ____	____ x ____ = ____	____
0.85	____ x ____ = ____	____ x ____ = ____	____ x ____ = ____	____
0.90	____ x ____ = ____	____ x ____ = ____	____ x ____ = ____	____
0.95	____ x ____ = ____	____ x ____ = ____	____ x ____ = ____	____
1.00	____ x ____ = ____	____ x ____ = ____	____ x ____ = ____	____
1.10	____ x ____ = ____	____ x ____ = ____	____ x ____ = ____	____
1.20	____ x ____ = ____	____ x ____ = ____	____ x ____ = ____	____
1.30	____ x ____ = ____	____ x ____ = ____	____ x ____ = ____	____
1.40	____ x ____ = ____	____ x ____ = ____	____ x ____ = ____	____
1.50	____ x ____ = ____	____ x ____ = ____	____ x ____ = ____	____

ER= Annual Average Emission Rate
DC= Hourly Dispersion Coeffiecient (from Worksheet 5.0-1)
C= Estimated Maximum Hourly Ambient Air Concentration

Worksheet 5.0-2 Maximum Hourly Ambient Air Concentration

Pollutant _____

Total Distance (km)	Stack 1 ER x DC = C	Stack 2 ER x DC = C	Stack 3 ER x DC = C	Summed Concentration from all Stacks
1.60	___ x ___ = ___	___ x ___ = ___	___ x ___ = ___	___
1.70	___ x ___ = ___	___ x ___ = ___	___ x ___ = ___	___
1.80	___ x ___ = ___	___ x ___ = ___	___ x ___ = ___	___
1.90	___ x ___ = ___	___ x ___ = ___	___ x ___ = ___	___
2.00	___ x ___ = ___	___ x ___ = ___	___ x ___ = ___	___
2.25	___ x ___ = ___	___ x ___ = ___	___ x ___ = ___	___
2.50	___ x ___ = ___	___ x ___ = ___	___ x ___ = ___	___
2.75	___ x ___ = ___	___ x ___ = ___	___ x ___ = ___	___
3.00	___ x ___ = ___	___ x ___ = ___	___ x ___ = ___	___
4.00	___ x ___ = ___	___ x ___ = ___	___ x ___ = ___	___
5.00	___ x ___ = ___	___ x ___ = ___	___ x ___ = ___	___
6.00	___ x ___ = ___	___ x ___ = ___	___ x ___ = ___	___
7.00	___ x ___ = ___	___ x ___ = ___	___ x ___ = ___	___
8.00	___ x ___ = ___	___ x ___ = ___	___ x ___ = ___	___
9.00	___ x ___ = ___	___ x ___ = ___	___ x ___ = ___	___
10.00	___ x ___ = ___	___ x ___ = ___	___ x ___ = ___	___
15.00	___ x ___ = ___	___ x ___ = ___	___ x ___ = ___	___
20.00	___ x ___ = ___	___ x ___ = ___	___ x ___ = ___	___

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 Ambient Air Concentration

Pollutant _____

Total Distance (km)	Stack 1 ER x DC = C	Stack 2 ER x DC = C	Stack 3 ER x DC = C	Summed Concentration from all Stacks
1.60	x =	x =	x =	
1.70	x =	x =	x =	
1.80	x =	x =	x =	
1.90	x =	x =	x =	
2.00	x =	x =	x =	
2.25	x =	x =	x =	
2.50	x =	x =	x =	
2.75	x =	x =	x =	
3.00	x =	x =	x =	
4.00	x =	x =	x =	
5.00	x =	x =	x =	
6.00	x =	x =	x =	
7.00	x =	x =	x =	
8.00	x =	x =	x =	
9.00	x =	x =	x =	
10.00	x =	x =	x =	
15.00	x =	x =	x =	
20.00	x =	x =	x =	

ER = Annual average emission rate
DC = Hourly dispersion coefficient (from Worksheet 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.

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.

Stack No.	Stack height (m)		Maximum terrain rise (m)			Complex	Noncomplex
1	.....	–	.....	=	(m)	.....	.....
2	.....	–	.....	=	(m)	.....	.....
3	.....	–	.....	=	(m)	.....	.....

(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:[13]

Stack No.	Generic source No. steps 10 (C or D)			Annual/hourly ratio (from table 5.0–6)		
	Distance ranges (km)			Distance ranges (km)		
	0–0.5	>0.5–2.5	>2.5–5.0	0–0.5	>0.5–2.5	>2.5–5.0
1	_____	_____	_____	_____	_____	_____
2	_____	_____	_____	_____	_____	_____
3	_____	_____	_____	_____	_____	_____

(I) Select the highest annual/hourly ratio among all of the stacks,[14] and then estimate the maximum annual average ambient air concentrations for each pollutant by completing the following table, where:

C=Maximum total hourly ambient air concentration (μg/m^3) for pollutant ''N'' from Step 10(F),

C_a=Maximum annual average air concentration for pollutant ''N'' (μg/m^3),

R=Annual/hourly ratio.

TABLE 5.0–6.—95TH PERCENTILE OF ANNUAL/HOURLY RATIOS

Noncomplex Terrain			Complex Terrain		
Source	Urban	Rural	Source	Urban	Rural
1	0.019	0.014	1	0.020	0.053
2	0.033	0.019	2	0.020	0.053
3	0.031	0.018	3	0.030	0.057
4	0.029	0.017	4	0.051	0.047
5	0.028	0.017	5	0.067	0.039
6	0.028	0.017	6	0.059	0.034
7	0.031	0.015	7	0.036	0.031
8	0.030	0.013	8	0.026	0.024
9	0.029	0.011	9	0.026	0.024
10	0.029	0.008	10	0.017	0.013
11	0.018	0.015	11	0.020	0.053

Pollutant	C^a (μg/m^3)	×	R	=	$C_{A(>G/M^3)}$
_____	____	×	____	=	____
_____	____	×	____	=	____

(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.

SECTION 6.0—SIMPLIFIED LAND USE CLASSIFICATION PROCEDURE FOR COMPLIANCE WITH TIER I AND TIER II LIMITS

6.1 *Introduction*

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) [1] 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 is, therefore, focused 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

Type[1]	Description	Urban or rural designation[2]
I1	Heavy Industrial	Urban.
I2	Light/Moderate Industrial	Urban.
C1	Commercial	Urban.
R1	Common Residential (Normal Easements).	Rural.
R2	Compact Residential (Single Family).	Urban.
R3	Compact Residential (Multi-Family).	Urban.
R4	Estate Residential (Multi-Acre Plots).	Rural.
A1	Metropolitan Natural	Rural.
A2	Agricultural	Rural.
A3	Undeveloped (Grasses/Weeds).	Rural.
A4	Undeveloped (Heavily Wooded).	Rural.
A5	Water Surfaces	Rural.

[1] EPA, Guideline on Air Quality Models (Revised), EPA–450/2–78–027R, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina, July, 1986.

[2] Auer, August H. Jr., ''Correlation of Land Use and Cover with Meteorological Anomalies,'' Journal of Applied Meteorology, pp. 636–643, 1978.

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:

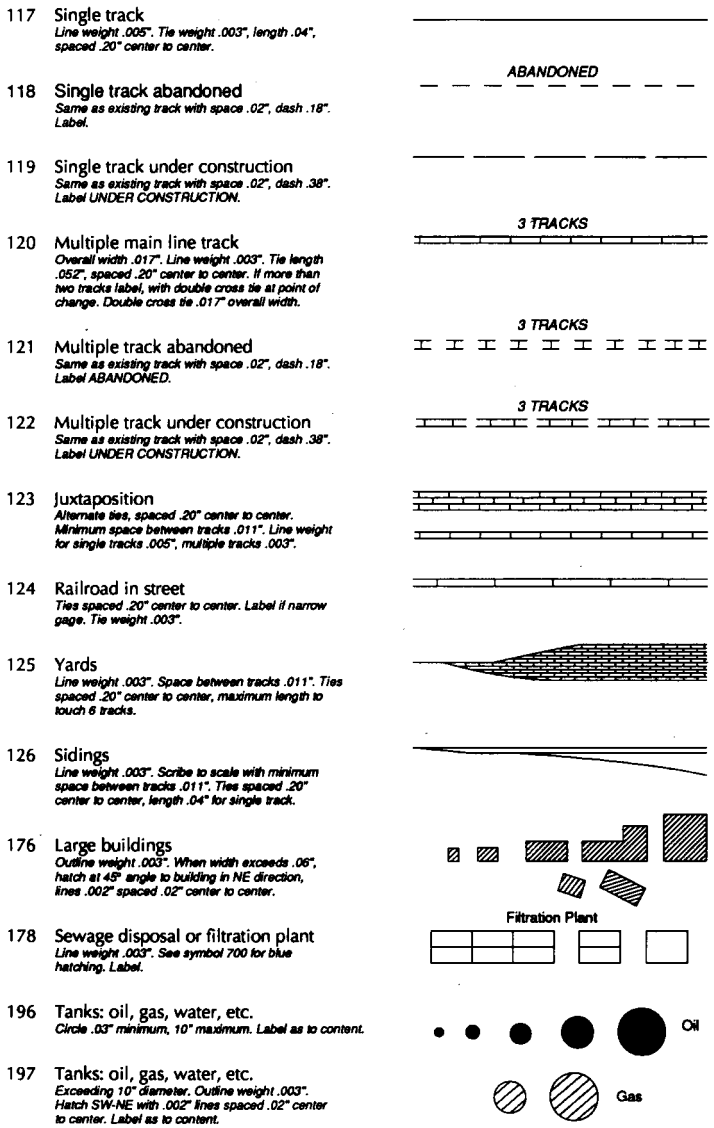
Green Wooded areas (rural).

White White areas generally will be treated as rural. This code applies to areas that are unwooded 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

as urban based on EPA 1986 or Auer 1978. 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.

Figure 6.0–1

Supplementary Publication Symbols



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 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 with a 95% proportion of the sample distribution) 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 reestablished 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 compositing period of not more than 24 hours. Mulitple 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 (i.e., 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 = mean of the normal residue concentrations, $X = X_i/n$,

K = coefficient for sample size n, 95% confidence and 95% proportion,

S = standard deviation of the normal residue concentrations,

$S = (\Sigma(X_i - X)^2/(n - 1))^{0.5}$, and

n = 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:

Sample No.	Concentration of constituent A (ppm)
1	10
2	10
3	15
4	10
5	7
6	12
7	10
8	16
9	15
10	10

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 ppm

This, 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 Solid Waste 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

Sample size (n)	K
10	2.911
11	2.815
12	2.736
13	2.670
14	2.614
15	2.566
16	2.523
17	2.486
18	2.458
19	2.423
20	2.396
21	2.371
22	2.350
23	2.329
24	2.303
25	2.292

7.5 References

1. Shapiro, S.S. and Wilk, M.B. (1965), ''An Analysis of Variance Test for Normality (complete samples),'' Biometrika, 52,591–611.

2. Bhattacharyya, G.K. and R.A. Johnson (1977), Statistical Concepts and Methods, John Wiley and Sons, New York.

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, Cl_2, 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 chorine, metals, or PM and the air pollution control system removal efficiency (APCS RE) for these pollutants. The SRE is defined as:

SRE=(species input—species emitted) / species input

The SRE can be calculated from the partitioning factor (PF) and APCS RE by the following formula:

SRE=1—[(PF/100) X (1—APCS RE/100)]

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, Cl_2, 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

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 large particles that are removed relatively easily. Metals that vaporize in the combustion zone and condense before entering the APCS are classified as ''volatile''. 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 do not condense before entering the APCS are classified as ''very 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 (%)

APCS	Metal Volatility		
	Nonvolatile	Volatile	Very Volatile
WS	40	30	20
VS–20	80	75	20
VS–60	87	75	40
ESP–1	90	75	0
ESP–2	92	80	0
ESP–4	95	80	0
WESP	90	85	40
FF	90	80	0
SD/FF	97	90	0
DS/FF	95	90	0
IWS	90	87	75

WS=Wet Scrubber including: Sieve Tray Tower, Packed Tower, Bubble Cap Tower
VS–20=Venturi Scrubber, ca. 20–30 in W.G. Δ p
VS–60=Venturi Scrubber, ca. >60 in W.G. Δ p
ESP–1=Electrostatic Precipitator; 1 stage
ESP–2=Electrostatic Precipitator; 2 stage
ESP–4=Electrostatic Precipitator; 4 stage
IWS=Ionizing Wet Scrubber
DS=Dry Scrubber
FF=Fabric Filter (Baghouse)
SD=Spray Dryer (Wet/Dry Scrubber)
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

Metal		Thermal Input (MMBtu/hr)[1]				
Name	Symbol	1	10	100	1000	10000
Arsenic	As	320	280	240	200	160
Cadmium	Cd	1040	940	860	780	720
Chromium	Cr	2000	1760	1580	1420	1380
Beryllium	Be	1680	1440	1240	1080	980
Antimony	Sb	680	600	540	480	420
Barium	Ba	2240	1820	1540	1360	1240
Lead	Pb	1280	1180	1080	1000	920
Mercury	Hg	340	300	260	220	180
Silver	Ag	1820	1640	1480	1340	1220
Thallium	Tl	900	800	700	620	540

[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

Metal		Thermal Input (MMBtu/hr)[1]				
Name	Symbol	1	10	100	1000	10000
Arsenic	As	320	280	240	200	160
Cadmium	Cd	1040	940	860	780	720
Chromium	Cr	>140	>140	>140	>140	>140
Beryllium	Be	1680	1440	1240	1080	980
Antimony	Sb	680	600	540	480	420
Barium	Ba	2060	1840	1680	1540	1420
Lead	Pb	>140	>140	>140	>140	>140
Mercury	Hg	340	300	260	220	180

TABLE 8.1–3.—TEMPERATURE (F) ENTERING APCS ABOVE WHICH METALS ARE CLASSIFIED AS VERY VOLATILE IN COMBUSTION OF CHLORINATED WASTES—Continued

Metal		Thermal Input (MMBtu/hr)[1]				
Name	Symbol	1	10	100	1000	10000
Silver	Ag	1080	940	840	740	660
Thallium	Tl	900	800	700	620	540

[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.

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.

8.2 *APCS RE Default Values for HCl and Cl_2*

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 Cl_2 for most types of APCS is generally minimal. Therefore, the default assumption for APCS RE for Cl_2 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.

TABLE 8.2–1.—AIR POLLUTION CONTROL SYSTEMS (APCS) AND THEIR CONSERVATIVELY ESTIMATED EFFICIENCIES FOR REMOVING HYDROGEN CHLORIDE (HCL) AND PARTICULATE MATTER (PM) (%)

APCD	HCl		PM
	Cement kilns	Other BIFs	
WS	97	97	40
VS–20	97	97	80
VS–60	98	98	87
ESP–1	83	0	90
ESP–2	83	0	92
ESP–4	83	0	95
WESP	83	70	90
FF	83	0	90
SD/FF	98	98	97
DS/FF	98	98	95
WS/IWS	99	99	95
IWS	99	99	90

WS=Wet Scrubber including: Sieve Tray Tower, Packed Tower, Bubble Cap Tower

PS=Proprietary Wet Scrubber Design (A number of proprietary wet scrubbers have come on the market in recent years that are highly efficient on both particulates and corrosive gases. Two such units are offered by Calvert Environmental Equipment Co. and by Hydro-Sonic Systems, Inc.).

VS–20=Venturi Scrubber, ca. 20–30 in W.G. Δ p

VS–60=Venturi Scrubber, ca. >60 in W.G. Δ p

ESP–l=Electrostatic Precipitator; 1 stage

ESP–2=Electrostatic Precipitator; 2 stage

ESP–4=Electrostatic Precipitator; 4 stage

IWS=Ionizing Wet Scrubber

DS=Dry Scrubber

FF=Fabric Filter (Baghouse)

SD=Spray Dryer (Wet/Dry Scrubber)

8.4 *References*

1. U.S. Environmental Protection Agency. ''Guidance on Metals and Hydrogen Chloride Controls for Hazardous Waste Incinerators,'' Office of Solid Waste, Washington, DC, August 1989.
2. Carroll, G.J., R.C. Thurnau, R.E. Maurnighan, L.R. Waterland, J.W. Lee, and D.J. Fournier. The Partitioning of

Metals in Rotary Kiln Incineration. Proceedings of the Third International Conference on New Frontiers for Hazardous Waste Management. NTIS Document No. EPA/600/9–89/072, p. 555 (1989).

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, Cl_2, 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 Cl_2*

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 to the combustor. Therefore, the owner/operator must estimate the controlled emission rate of both HCl and Cl_2 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 Cl_2, 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 ≤0.95, the default partitioning factor is 20 percent Cl_2, 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 Cl_2.

3. To determine the uncontrolled (i.e., prior to acid gas APCS) emission rate of HCl and Cl_2, 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 Cl_2.

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 gr/dscf, corrected to 7% O_2, 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 principally 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 gr/dscf, corrected to 7% 0_2, 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 gr/dscf standard to a PM mass emission rate:

1. Determine the flue gas 0_2 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 [(21–0_2 concentration from step 1)/(21–7)].

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*

1. Barton, R.G., W.D. Clark, and W.R. Seeker. (1990) ''Fate of Metals in Waste Combustion Systems''. Combustion Science and Technology. 74, 1–6, p. 327

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 (using procedures specified in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods'' (SW–846), incorporated by reference in 40 CFR 260.11).

(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:

$$ME\left(\frac{1b\ \ Emitted\ Metal}{hr}\right)=$$

$$PME\left(\frac{1b\ PM}{hr}\right)DMC\left(\frac{1b\ Dust\ Metal}{1b\ Dust}\right)EF\left(\frac{1b\ Emitted\ Metal\,/1b\ PM}{1b\ Dust\ Metal\,/1b\ Dust}\right) \qquad (1)$$

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):

$$DMCL\left(\frac{1b\ Dust\ Metal}{1b\ Dust}\right)=\frac{Tier\ III\ Limit\left(\frac{1b\ Emitted\ Metal}{hr}\right)}{PML\left(\frac{1b\ PM}{hr}\right)EF\left(\frac{1b\ Emitted\ Metal\,/1b\ PM}{1b\ Dust\ Metal\,/1b\ Dust}\right)} \qquad (2)$$

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 ($DMCL_v$):

$$DMCL_v\left(\frac{1b\ Dust\ Metal}{1b\ Dust}\right)=\frac{Tier\ III\ Limit\left(\frac{1b\ Emitted\ Metal}{hr}\right)}{PML\left(\frac{1b\ PM}{hr}\right)EF_{95^{\bullet}}\left(\frac{1b\ Emitted\ Metal\,/1b\ PM}{1b\ Dust\ Metal/1b\ Dust}\right)} \qquad (3)$$

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_{99}• is greater than two times the value of EF_{95}•, the ''safe'' enrichment factor can be calculated using Equation 4a:

$SEF \geq 2\ EF_{95}$• (4a)Q02

If EF_{99}• is not greater than two times the value of EF_{95}•, the ''safe'' enrichment factor can be calculated using Equation 4b:

$SEF \geq EF_{99}$• (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:

SEF=100 (4c)

For all cases, the ''conservative'' dust metal concentration limit is calculated using the following equation:

$$DMCL_c\left(\frac{1b\ Dust\ Metal}{1b\ Dust}\right)=\frac{Tier\ III\ Limit\left(\frac{1b\ Emitted\ Metal}{hr}\right)}{PML\left(\frac{1b\ PM}{hr}\right)SEF\left(\frac{1b\ Emitted\ Metal/1b\ PM}{1b\ Dust\ Metal/1b\ Dust}\right)} \qquad (5)$$

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 metals 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 $EF_{95<<}$ exists, the ''violation'' dust metal concentration limit is set at ten times the ''conservative'' limit:

$DMCL_v = 10 \times DMCL_c$ (6)

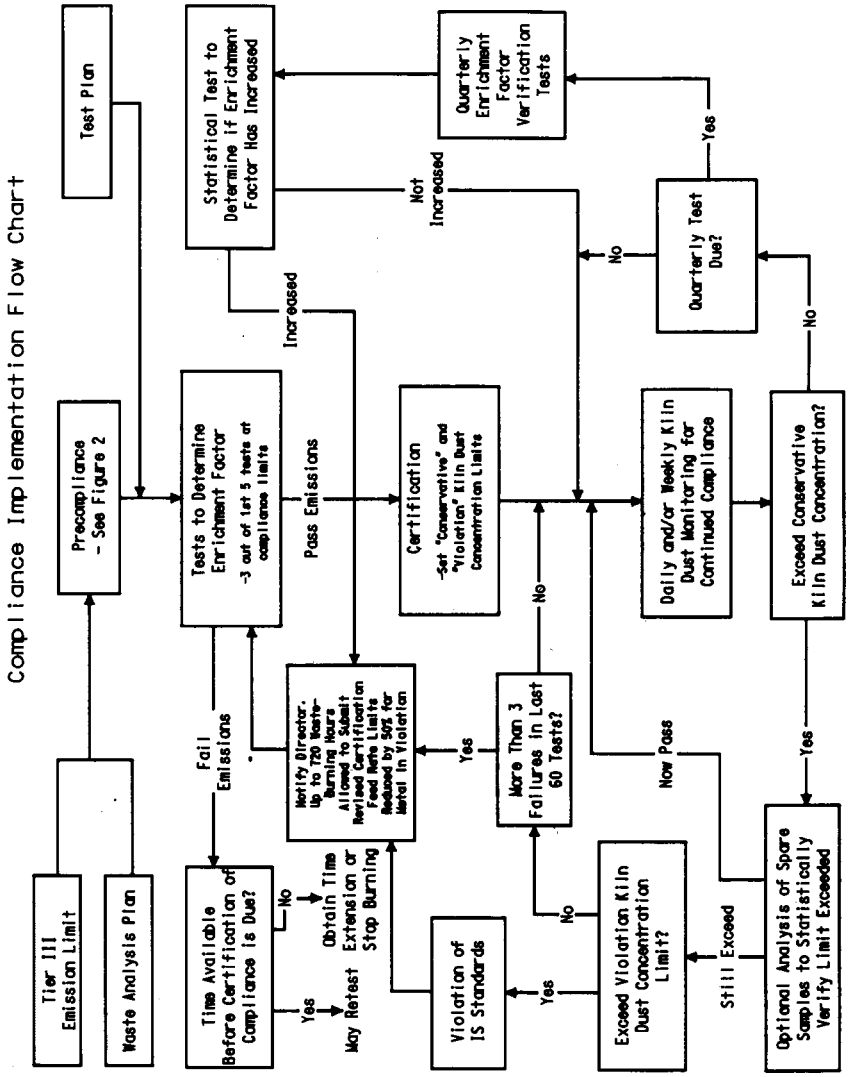
10.4 *Overview*

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).

Figure 10.4-1

Compliance Implementation Flow Chart



• 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 the guidelines described in SW–846 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 the sampling and analytical procedures described in SW–846 and 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 (noncomposited) 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

—Equation 4a if $EF_{95<}$ is determinable and if $EF_{99<}$ is greater than two times $EF_{95<}$,
—Equation 4b if $EF_{95<}$ is determinable and if $EF_{99<}$ 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 ($DMCL_c$) 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 ($DMCL_v$) 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 SW–846 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 SW–846 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 $EF_{95\approx}$ 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 $EF_{95\approx}$ 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 concentration limit that would be calculated from the combined $EF_{95\%}$.

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) 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 Cl_2 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 the procedures described in SW–846 for preparing waste analysis plans for the following tasks:

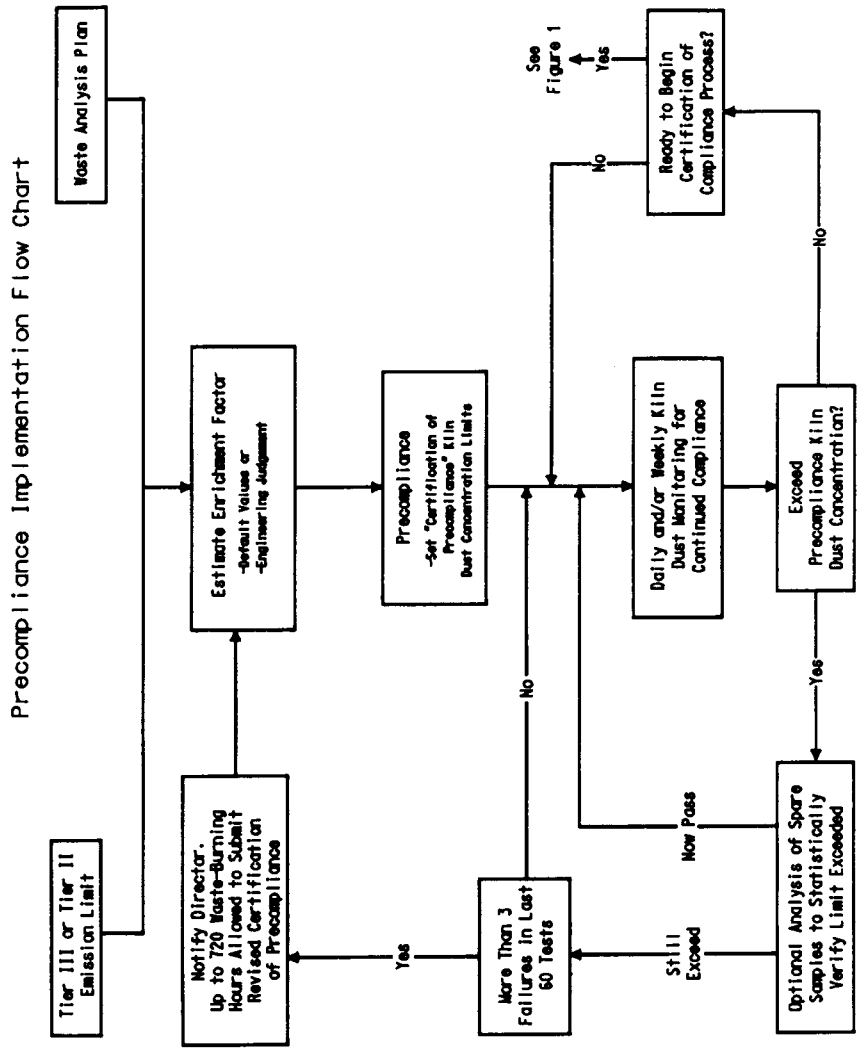
—Analysis of hazardous waste feedstreams.

—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.

Figure 10.6-1

Precompliance Implementation Flow Chart



• 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 ($DMCL_c$) 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 recycle 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)(ii)) 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 SW–846 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 prepared according to SW–846 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.

(6) This step does not apply to precompliance procedures.

(7) This step does not apply to precompliance procedures.

(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 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.

(9) This step does not apply to precompliance procedures.

(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) 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 must be used to ensure that the ''conservative'' kiln dust metal concentration 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, $EF_{95<}$ s, 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 $EF_{95<}$. Similarly, at the 99% confidence level, the enrichment factor, $EF_{99<}$, is statistically determined so there is only a 1% chance that the enrichment factor at any given time will be larger than $EF_{99<}$.

For a large number of samples (n > 30), $EF_{95<}$ is based on a normal distribution, and is equal to:

$$EF_{95<}=EF+z_c\,\sigma \qquad (1)$$

where:

$$\overline{EF}=\frac{\sum_{i=1}^{n} EF_i}{n} \qquad (2)$$

$$\sigma=\left[\frac{\sum_{i=1}^{n}\left(EF_i=\overline{EF}\right)^2}{n}\right]^{\frac{1}{2}} \qquad (3)$$

For a 95% confidence level, z_c is equal to 1.645.

For a small number of samples (n<30), $EF_{95<}$ is based on the t-distribution and is equal to:

$$EF_{95<}=EF+t_c\,S \qquad (4)$$

where the standard deviation, S, is defined as:

$$S=\left[\frac{\sum_{i=1}^{n}\left(EF_i-\overline{EF}\right)^2}{n-1}\right]^{\frac{1}{2}} \qquad (5)$$

t_c 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 t_c are shown in table A–

1 for various degrees of freedom (degrees of freedom=sample size−1) at the 95% and 99% confidence levels. As the sample size approaches infinity, the normal distribution 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 $t_{meas} \leq$

$$t_{meas} = \frac{\overline{EF}_1 - \overline{EF}_2}{\sigma_t \left(\frac{1}{n_1} + \frac{1}{n_2} \right)^{\frac{1}{2}}} \qquad (6)$$

TABLE A–1.—T-DISTRIBUTION

n–1 or n_1+n_2-2	$t_{.95}$	$t_{.99}$
1	6.31	31.82
2	2.92	6.96
3	2.35	4.54
4	2.13	3.75
5	2.02	3.36
6	1.94	3.14
7	1.90	3.00
8	1.86	2.90
9	1.83	2.82
10	1.81	2.76
11	1.80	2.72
12	1.78	2.68
13	1.77	2.65
14	1.76	2.62
15	1.75	2.60
16	1.75	2.58
17	1.74	2.57
18	1.73	2.55
19	1.73	2.54
20	1.72	2.53
25	1.71	2.48
30	1.70	2.46
40	1.68	2.42
60	1.67	2.39
120	1.66	2.36
∞	1.645	2.33

$$\sigma_t = \left(\frac{(n_1 - 1)S_1^{\,2} + (n_2 - 1)S_2^{\,2}}{n_1 + n_2 - 2} \right)^{1/2} \qquad (7)$$

is compared to t_{crit} at the desired confidence level. The 95% confidence level is used in this method. Values of t_{crit} are shown in table A–1 for various degrees of freedom (degrees of freedom n_1+n_2-2) at the 95% and 99% confidence levels. If t_{meas} is greater then t_{crit}, it can be concluded with 95% confidence that the two groups are not from the same population.

A.3 *Rejection of Data*

If the concentration of any hazardous metal in the ''required'' kiln dust sample exceeds the kiln dust metal concentration 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_{meas}, is then compared with rejection values that are critical for a particular degree of confidence, where Q_{meas} is:

$$\sigma^{meas} = \frac{DMC_{highest} - DMC_{next\ highest}}{DMC_{highest} - DMC_{lowest}} \qquad (8)$$

The 90% confidence level for data rejection is used in this method. Table A–2 provides the values of Q_{crit} at the 90% confidence level. If Q_{meas} is larger than Q_{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

n	Q_{crit}
3	0.94
4	0.76
5	0.64
6	0.56
7	0.51
8	0.47

TABLE A–2.—CRITICAL VALUES FOR USE IN THE Q-TEST—Continued

n	Q_{crit}
9	0.44
10	0.41

[56 FR 32692, July 17, 1991 as amended 56 FR 42512, 42516, Aug. 27, 1991; 57 FR 38566, Aug. 25, 1992; 57 FR 44999, Sept. 30, 1992; 62 FR 32463, June 13, 1997]

APPENDIX X TO PART 266 [RESERVED]

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
Sump mud
Materials from laboratory analyses
Acid filters
Baghouse bags
Clothing (e.g., coveralls, aprons, shoes, hats, gloves)
Sweepings
Air filter bags and cartridges
Respiratory cartridge filters
Shop abrasives
Stacking boards
Waste shipping containers (e.g., cartons, bags, drums, cardboard)
Paper hand towels
Wiping rags and sponges
Contaminated pallets
Water treatment sludges, filter cakes, residues, and solids
Emission control dusts, sludges, filter cakes, residues, and solids from lead-associated industries (e.g., K069 and D008 wastes)
Spent grids, posts, and separators
Spent batteries
Lead oxide and lead oxide residues
Lead plates and groups
Spent battery cases, covers, and vents
Pasting belts
Water filter media
Cheesecloth from pasting rollers
Pasting additive bags
Asphalt paving materials

B. Exempt Lead-Bearing Materials When Generated or Originally Produced By Any Industry

Charging jumpers and clips
Platen abrasive
Fluff from lead wire and cable casings
Lead-based pigments and compounding pigment dust

[56 FR 42517, Aug. 27, 1991]

APPENDIX XII TO PART 266—NICKEL OR CHROMIUM-BEARING MATERIALS THAT MAY BE PROCESSED IN EXEMPT NICKEL-CHROMIUM RECOVERY FURNACES

A. Exempt Nickel or Chromium-Bearing Materials when Generated by Manufacturers or Users of Nickel, Chromium, or Iron

Baghouse bags
Raney nickel catalyst
Floor sweepings
Air filters
Electroplating bath filters
Wastewater filter media
Wood pallets
Disposable clothing (coveralls, aprons, hats, and gloves)
Laboratory samples and spent chemicals
Shipping containers and plastic liners from containers or vehicles used to transport nickel or chromium-containing wastes
Respirator cartridge filters
Paper hand towels

B. Exempt Nickel or Chromium-Bearing Materials when Generated by Any Industry

Electroplating wastewater treatment sludges (F006)
Nickel and/or chromium-containing solutions
Nickel, chromium, and iron catalysts
Nickel-cadmium and nickel-iron batteries
Filter cake from wet scrubber system water treatment plants in the specialty steel industry[1]
Filter cake from nickel-chromium alloy pickling operations[1]

[56 FR 42517, Aug. 27, 1991]

APPENDIX XIII TO PART 266—MERCURY BEARING WASTES THAT MAY BE PROCESSED IN EXEMPT MERCURY RECOVERY UNITS

These are exempt mercury-bearing materials with less than 500 ppm of 40 CFR Part 261, appendix VIII organic constituents when generated by manufacturers or users of mercury or mercury products.

1. Activated carbon
2. Decomposer graphite
3. Wood
4. Paper
5. Protective clothing

[1] Lead-associated industries are lead smelters, lead-acid battery manufacturing, and lead chemical manufacturing (e.g., manufacturing of lead oxide or other lead compounds).

[1] If a hazardous waste under an authorized State program.

6. Sweepings
7. Respiratory cartridge filters
8. Cleanup articles
9. Plastic bags and other contaminated containers
10. Laboratory and process control samples
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 or mercury contained in soil

[59 FR 48042, Sept. 19, 1994]

PART 267 [RESERVED]

PART 268—LAND DISPOSAL RESTRICTIONS

Subpart A—General

Sec.
268.1 Purpose, scope, and applicability.
268.2 Definitions applicable in this part.
268.3 Dilution prohibited as a substitute for treatment.
268.4 Treatment surface impoundment exemption.
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268.50 Prohibitions on storage of restricted wastes.

APPENDIXES I–II TO PART 268 [RESERVED]
APPENDIX III TO PART 268—LIST OF HALOGENATED ORGANIC COMPOUNDS REGULATED UNDER § 268.32
APPENDIX IV TO PART 268—WASTES EXCLUDED FROM LAB PACKS UNDER THE ALTERNATIVE TREATMENT STANDARDS OF § 268.42(C)
APPENDIX V TO PART 268 [RESERVED]
APPENDIX VI TO PART 268—RECOMMENDED TECHNOLOGIES TO ACHIEVE DEACTIVATION OF CHARACTERISTICS IN SECTION 268.42
APPENDIX VII TO PART 268—LDR EFFECTIVE DATES OF SURFACE DISPOSED PROHIBITED HAZARDOUS WASTES
APPENDIX VIII TO PART 268—LDR EFFECTIVE DATES OF INJECTED PROHIBITED HAZARDOUS WASTES
APPENDIX IX TO PART 268—EXTRACTION PROCEDURES (EP) TOXICITY TEST METHOD AND STRUCTURAL INTEGRITY TEST (METHOD 1310)
APPENDIX X TO PART 268 [RESERVED]
APPENDIX XI TO PART 268—METAL BEARING WASTES PROHIBITED FROM DILUTION IN A COMBUSTION UNIT ACCORDING TO 40 CFR 268.3(C)

AUTHORITY: 42 U.S.C. 6905, 6912(a), 6921, and 6924.

Subpart A—General

§ 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 146.6(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 are D003 reactive 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 of section 307 of the Clean Water Act; or

(iii) The wastes are managed in a zero discharge system engaged in Clean Water Act-equivalent treatment as defined in § 268.37(a); and

(iv) The wastes no longer exhibit a prohibited characteristic at the point of land disposal (i.e., placement in a surface impoundment).

(d) The requirements of this part shall not affect the availability of a waiver under section 121(d)(4) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).

(e) The following hazardous wastes are not subject to any provision of part 268:

(1) Waste generated by small quantity generators of less than 100 kilograms of non-acute hazardous waste or less than 1 kilogram of acute hazardous waste per month, as defined in § 261.5 of this chapter;

(2) Waste pesticides that a farmer disposes of pursuant to § 262.70;

(3) Wastes identified or listed as hazardous after November 8, 1984 for which EPA has not promulgated land disposal prohibitions or treatment standards;

(4) *De minimis* losses of characteristic wastes to wastewaters are not considered to be prohibited wastes and are defined as losses from normal material handling operations (e.g. spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves or other devices used to transfer materials); minor leaks of process equipment, storage tanks or containers; leaks from well-maintained pump packings and seals; sample purgings; and relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; rinsate from empty containers or from containers that are rendered empty by that rinsing; and laboratory wastes not exceeding one per cent of the total flow of wastewater into the facility's headworks on an annual basis, or with a combined annualized average concentration not exceeding one part per million in the headworks of the facility's wastewater treatment or pretreatment facility.

(f) Universal waste handlers and universal waste transporters (as defined in

40 CFR 260.10) are exempt from 40 CFR 268.7 and 268.50 for the hazardous wastes listed below. These handlers are subject to regulation under 40 CFR part 273.

(1) Batteries as described in 40 CFR 273.2;

(2) Pesticides as described in § 273.3 of this chapter;

(3) Thermostats as described in § 273.4 of this chapter; and

(4) Lamps as described in 40 CFR 273.5.

[51 FR 40638, Nov. 7, 1986; 52 FR 21016, June 4, 1987, as amended at 53 FR 27165, July 19, 1988; 53 FR 31212, Aug. 17, 1988; 54 FR 36970, Sept. 6, 1989; 55 FR 22686, June 1, 1990; 58 FR 29884, May 24, 1993; 59 FR 48043, Sept. 19, 1994; 60 FR 25542, May 11, 1995; 61 FR 15663, Apr. 8, 1996; 61 FR 33682, June 28, 1996; 62 FR 26019, May 12, 1997; 64 FR 36488, July 6, 1999]

§ 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 matter; or natural geologic material. However, the following materials are not debris: Any material for which a specific treatment standard is provided in Subpart D, Part 268, namely lead acid batteries, cadmium batteries, and radioactive lead solids; Process residuals such as smelter slag and residues from the treatment of waste, wastewater, sludges, or air emission residues; and Intact containers of hazardous waste that are not ruptured and that retain at least 75% of their original volume. A mixture of debris that has not been treated to the standards provided by § 268.45 and other material is subject to regulation as debris if the mixture is comprised primarily of debris, by volume, based on visual inspection.

(h) *Hazardous debris* means debris that contains a hazardous waste listed in subpart D of part 261 of this chapter, or that exhibits a characteristic of hazardous waste identified in subpart C of part 261 of this chapter. Any deliberate mixing of prohibited hazardous waste with debris that changes its treatment classification (i.e., from waste to hazardous debris) is not allowed under the dilution prohibition in § 268.3.

(i) *Underlying hazardous constituent* means any constituent listed in § 268.48, Table UTS—Universal Treatment Standards, except fluoride, selenium, sulfides, vanadium, and zinc, which can reasonably be expected to be present at the point of generation of the hazardous waste at a concentration above the constituent-specific UTS treatment standards.

(j) *Inorganic metal-bearing waste* is one for which EPA has established treatment standards for metal hazardous constituents, and which does not otherwise contain significant organic or cyanide content as described in § 268.3(c)(1), and is specifically listed in appendix XI of this part.

(k) *Soil* means unconsolidated earth material composing the superficial geologic strata (material overlying bedrock), consisting of clay, silt, sand, or gravel size particles as classified by the U.S. Natural Resources Conservation Service, or a mixture of such materials with liquids, sludges or solids which is inseparable by simple mechanical removal processes and is made up primarily of soil by volume based on

visual inspection. Any deliberate mixing of prohibited hazardous waste with soil that changes its treatment classification (i.e., from waste to contaminated soil) is not allowed under the dilution prohibition in § 268.3.

[55 FR 22686, June 1, 1990, as amended at 56 FR 3877, Jan. 31, 1991; 57 FR 37270, Aug. 18, 1992; 58 FR 8685, Feb. 16, 1993; 58 FR 29884, May 24, 1993; 59 FR 48043, Sept. 19, 1994; 60 FR 244, Jan. 3, 1995; 61 FR 15597, 15662, Apr. 8, 1996; 61 FR 33682, June 28, 1996; 63 FR 28639, May 26, 1998; 63 FR 65940, Nov. 30, 1998; 64 FR 25414, May 11, 1999]

§ 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 in a CWA-equivalent treatment system, 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, at the point of generation, or after any bona fide treatment such as cyanide destruction prior to combustion, can be demonstrated to comply 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).

(d) 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.

[61 FR 15663, Apr. 8, 1996, as amended at 61 FR 33682, June 28, 1996; 63 FR 28639, May 26, 1998]

§ 268.4 Treatment surface impoundment exemption.

(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.

(3) 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 264 of this chapter unless:

(i) 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.

[51 FR 40638, Nov. 7, 1986; 52 FR 21016, June 4, 1987, as amended at 52 FR 25788, July 8, 1987; 53 FR 31212, Aug. 17, 1988; 62 FR 26019, May 12, 1997; 63 FR 28639, May 26, 1998]

§ 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 responsible for obtaining the information, I believe that the 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.

(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 section, after notice and opportunity for comment, and after consultation with appropriate State agencies in all affected 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 extension extend beyond 24 months from the applicable effective date specified in subpart C of part 268. The length of any extension authorized will be determined by the Administrator based on the time required to construct or obtain the type of capacity needed by the applicant as described in the completion schedule discussed in paragraph (a)(5) of this section. The Administrator will give public notice of the intent to approve or deny a petition and provide an opportunity for public comment. The final decision on a petition will be published in the FEDERAL REGISTER.

(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 application.

(g) Any person granted an extension under this section shall submit written progress reports at intervals designated by the Administrator. Such reports must describe the overall progress made toward constructing or otherwise providing alternative treatment, recovery or disposal capacity; must identify any event which may cause or has caused a delay in the development of the capacity; and must

summarize the steps taken to mitigate the delay. The Administrator can revoke 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 revokes any required permit, if conditions certified in the application change, or for any violation of this chapter.

(h) Whenever the Administrator establishes an extension to an effective date under this section, during the period for which such extension is in effect:

(1) The storage restrictions under § 268.50(a) do not apply; and

(2) Such hazardous waste may be disposed in a landfill or surface impoundment 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 permitted, is in compliance with the requirements 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 additional 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 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. 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.

[51 FR 40638, Nov. 7, 1986; 52 FR 21016, June 4, 1987, as amended at 52 FR 25788, July 8, 1987; 54 FR 36971, Sept. 6, 1989; 55 FR 23935, June 13, 1990; 57 FR 37270, Aug. 18, 1992]

§ 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 meet 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 that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(h) After receiving a petition, the Administrator may request any additional information that reasonably may be required to evaluate the demonstration.

(i) If approved, the petition will apply to land disposal of the specific restricted waste at the individual disposal unit described in the demonstration and will not apply to any other restricted waste at that disposal unit, or to that specific restricted waste at any other disposal unit.

(j) 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 petition will be published in the FEDERAL REGISTER.

(k) The term of a petition granted under this section shall be no longer than the term of the RCRA permit if the disposal unit is operating under a RCRA permit, or up to a maximum of 10 years from the date of approval provided under paragraph (g) of this section if the unit is operating under interim status. In either case, the term of the granted petition shall expire upon the termination or denial of a RCRA permit, or upon the termination of interim status or when the volume limit of waste to be land disposed during the term of petition is reached.

(l) Prior to the Administrator's decision, 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.

(m) The petition granted by the Administrator does not relieve the petitioner of his responsibilities in the management of hazardous waste under 40 CFR part 260 through part 271.

(n) Liquid hazardous wastes containing polychlorinated biphenyls at concentrations greater than or equal to 500 ppm are not eligible for an exemption under this section.

[51 FR 40638, Nov. 7, 1986; 52 FR 21016, June 4, 1987, as amended at 52 FR 25789, July 8, 1987; 53 FR 31212, Aug. 17, 1988; 54 FR 36971, Sept. 6, 1989]

§ 268.7 Testing, tracking, and recordkeeping 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 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, as referenced in § 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. 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 solids 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 contamination 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.

(2) If the waste or contaminated soil does not meet the treatment standard: 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 § 268.7(a)(4). 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.

(i) For contaminated soil, the following certification statement should be included, signed by an authorized representative:

> I certify under penalty of law that I personally have examined this contaminated soil and it [does/does not] contain listed hazardous waste and [does/does not] exhibit a characteristic of hazardous waste and requires treatment to meet the soil treatment standards as provided by 268.49(c).

(ii) [Reserved]

(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 ''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.

GENERATOR PAPERWORK REQUIREMENTS TABLE

Required information	§ 268.7 (a)(2)	§ 268.7 (a)(3)	§ 268.7 (a)(4)	§ 268.7 (a)(9)
1. EPA Hazardous Waste Numbers and Manifest Number of first shipment	✔	✔	✔	✔
2. Statement: this waste is not prohibited from land disposal			✔	
3. The waste is subject to the LDRs. The constituents of concern for F001-F005, and F039, 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 deactivated 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 (D001–D043), 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 as required by 40 CFR 264.13 (for permitted TSDs) or 40 CFR 265.13 (for interim status facilities). Such testing must be performed as provided 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

Required information	§ 268.7(b)
1. EPA Hazardous Waste Numbers and Manifest Number of first shipment	✔
2. The waste is subject to the LDRs. The constituents of concern for F001–F005, and F039, 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.	✔
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)	✔
4. Waste analysis data (when available)	✔
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/complies with] the soil treatment standards as provided by 268.49(c).	✔
6. A certification is needed (see applicable section for exact wording)	✔

(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 and believe that it has been maintained and operated properly so as to comply with treatment standards specified in 40 CFR 268.49 without impermissible dilution of the prohibited wastes. I am aware there are 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(e) 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(i); 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 § 268.20(b) regarding treatment standards and prohibition levels, the owner or operator of a treatment facility (i.e., the recycler) is not required to notify the receiving facility, pursuant to paragraph (b)(3) of this section. With each shipment of such wastes the owner or operator of the recycling facility must submit a certification described in paragraph (b)(4) of this section, and a notice which includes the information listed in paragraph (b)(3) of this section (except the manifest number) to the Regional Administrator, or his delegated representative. The recycling facility also must 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(e) 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 submitted to the EPA Regional hazardous waste management division director (or his designated representative) or State authorized to implement part 268 requirements, or State authorized to implement part 268 requirements:

(2) The notification must be updated if the debris is shipped to a different facility, and, for debris excluded under § 261.2(e)(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(e)(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.''

(e) 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 contains a listed hazardous waste and generators and treaters who first determine that a 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 on GPO Access.

§ 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. For purposes of part 268, the waste will carry the waste code for any applicable listed waste (Part 261, Subpart D). In

addition, where the waste exhibits a characteristic, the waste will carry one or more of the characteristic waste codes (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 lieu of the standard for the waste code under 40 CFR part 261, subpart C, provided that the treatment standard for the listed waste includes a treatment standard for the constituent that causes the waste to exhibit the characteristic. Otherwise, the waste must meet the treatment standards for all applicable listed and characteristic waste codes.

(c) In addition to any applicable standards determined from the initial point of generation, no prohibited waste which exhibits a characteristic under 40 CFR part 261, subpart C may be land disposed unless the waste complies with the treatment standards under subpart D of this part.

(d) Wastes that exhibit a characteristic are also subject to § 268.7 requirements, except that once the waste is no longer hazardous, a one-time notification and certification must be placed in the generators or treaters files and sent to the EPA region or authorized state. The notification and certification that is placed in the generators or treaters files must be updated if the process or operation generating the waste changes and/or if the subtitle D facility receiving the waste changes. However, the generator or treater need only notify the EPA region or an authorized state on an annual basis if such changes occur. Such notification and certification should be sent to the EPA region or authorized state by the end of the calendar year, but no later that December 31.

(1) The notification must include the following information:

(i) Name and address of the RCRA Subtitle D facility receiving the waste shipment; and

(ii) A description of the waste as initially generated, including the applicable EPA hazardous waste code(s), treatability group(s), and underlying hazardous constituents (as defined in § 268.2(i)), unless the waste will be treated and monitored for all underlying hazardous constituents. If all underlying hazardous constituents will be treated and monitored, there is no requirement to list any of the underlying hazardous constituents on the notice.

(2) The certification must be signed by an authorized representative and must state the language found in § 268.7(b)(4).

(i) If treatment removes the characteristic but does not meet standards applicable to underlying hazardous constituents, then the certification found in § 268.7(b)(4)(iv) applies.

(ii) [Reserved]

[55 FR 22688, June 1, 1990, as amended at 56 FR 3878, Jan. 31, 1991; 57 FR 37271, Aug. 18, 1992; 58 FR 29885, May 24, 1993; 59 FR 48045, Sept. 19, 1994; 60 FR 245, Jan. 3, 1995; 61 FR 15599, 15662, Apr. 8, 1996; 62 FR 26022, May 12, 1997; 64 FR 25415, May 11, 1999]

Subpart B—Schedule for Land Disposal Prohibition and Establishment of Treatment Standards

SOURCE: 51 FR 19305, May 28, 1986, unless otherwise noted.

§§ 268.10–268.12 [Reserved]

§ 268.13 Schedule for wastes identified or listed after November 8, 1984.

In the case of any hazardous waste identified or listed under section 3001 after November 8, 1984, the Administrator shall make a land disposal prohibition determination within 6 months after the date of identification or listing.

§ 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, not withstanding 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, not withstanding 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]

Subpart C—Prohibitions on Land Disposal

§ 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 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 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.

[62 FR 26022, May 12, 1997]

§ 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:

(1) The F020–F023 and F026–F028 dioxin-containing waste is contaminated soil and debris resulting from a response action taken under section 104 or 106 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) or a corrective action taken under subtitle C of the Resource Conservation and Recovery Act (RCRA).

(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 a petition under § 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.

[53 FR 31216, Aug. 17, 1988]

§ 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;

(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 waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains regulated constituents in excess of the applicable levels of subpart D of this part, the waste is prohibited from land disposal, and all requirements of part 268 are applicable, except as otherwise specified.

(d) 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 codisposed are at pH≤6.0.

[65 FR 67127, Nov. 8, 2000]

§ 268.34 Waste specific prohibitions—toxicity characteristic metal wastes.

(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.

(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.

[63 FR 28641, May 26, 1998, as amended at 63 FR 48127, Sept. 9, 1998]

§ 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 soils 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 in 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 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, the waste is prohibited from land disposal, and all requirements of this part are applicable, except as otherwise specified.

[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 waste extract or 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 this part are applicable, except as otherwise specified.

[66 FR 58298, Nov. 20, 2001]

§ 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 greater 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 greater 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–P199, 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–P199, 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;

(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.

[61 FR 15663, Apr. 8, 1996, as amended at 61 FR 33683, June 28, 1996; 62 FR 1997, Jan. 14, 1997; 62 FR 32979, June 17, 1997; 62 FR 37699, July 14, 1997; 63 FR 51264, Sept. 24, 1998]

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 1310, 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

(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 definded 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) Zinc micronutrient fertilizers that are produced for the general public's use and that are produced from or contain recycled characteristic hazardous wastes (D004–D011) are subject to the applicable treatment standards in § 268.41 contained in the 40 CFR, parts 260 to 299, edition revised as of July 1, 1990.

(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 U395 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

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
D001 [9]	Ignitable Characteristic Wastes, except for the § 261.21(a)(1) High TOC Subcategory.	NA	NA	DEACT and meet § 268.48 standards [8]; or RORGS; or CMBST	DEACT and meet § 268.48 standards [8]; or RORGS; or CMBST
	High TOC Ignitable Characteristic Liquids Subcategory based on 40 CFR 261.21(a)(1)—Greater than or equal to 10% total organic carbon. (Note: This subcategory consists of nonwastewaters only.)	NA	NA	NA	RORGS; CMBST; or POLYM
D002 [9]	Corrosive Characteristic Wastes.	NA	NA	DEACT and meet § 268.48 standards [8]	DEACT and meet § 268.48 standards [8]
D002, D004, D005, D006, D007, D008, D009, D010, D011	Radioactive high level wastes generated during the reprocessing of fuel rods. (Note: This subcategory consists of nonwastewaters only.)	Corrosivity (pH)	NA	NA	HLVIT
		Arsenic	7440–38–2	NA	HLVIT
		Barium	7440–39–3	NA	HLVIT
		Cadmium	7440–43–9	NA	HLVIT
		Chromium (Total)	7440–47–3	NA	HLVIT
		Lead	7439–92–1	NA	HLVIT
		Mercury	7439–97–6	NA	HLVIT
		Selenium	7782–49–2	NA	HLVIT
		Silver	7440–22–4	NA	HLVIT
D003 [9]	Reactive Sulfides Subcategory based on 261.23(a)(5).	NA	NA	DEACT	DEACT
	Explosives Subcategory based on 261.23(a)(6),(7), and (8).	NA	NA	DEACT and meet § 268.48 standards [8]	DEACT and meet § 268.48 standards [8]
	Unexploded ordnance and other explosive devices which have been the subject of an emergency response.	NA	NA	DEACT	DEACT
	Other Reactives Subcategory based on 261.23(a)(1).	NA	NA	DEACT and meet § 268.48 standards [8]	DEACT and meet § 268.48 standards [8]

	Water Reactive Subcategory based on 261.23(a)(2), (3), and (4). (Note: This subcategory consists of nonwastewaters only).	NA	NA	NA	DEACT and meet § 268.48 standards [8]
	Reactive Cyanides Subcategory based on 261.23(a)(5).	Cyanides (Total) [7] Cyanides (Amenable) [7]	57–12–5 57–12–5	Reserved 0.86	590 30
D004 [9]	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for arsenic based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Arsenic	7440–38–2	1.4 and meet § 268.48 standards [8]	5.0 mg/L TCLP and meet § 268.48 standards [8]
D005 [9]	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for barium based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Barium	7440–39–3	1.2 and meet § 268.48 standards [8]	21 mg/L TCLP and meet § 268.48 standards [8]
D006 [9]	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for cadmium based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Cadmium	7440–43–9	0.69 and meet § 268.48 standards [8]	0.11 mg/L TCLP and meet § 268.48 standards [8]
	Cadmium Containing Batteries Subcategory. (Note: This subcategory consists of nonwastewaters only).	Cadmium	7440–43–9	NA	RTHRM
D007 [9]	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for chromium based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Chromium (Total)	7440–47–3	2.77 and meet § 268.48 standards [8]	0.60 mg/L TCLP and meet § 268.48 standards [8]
D008 [9]	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for lead based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Lead	7439–92–1	0.69 and meet § 268.48 standards [8]	0.75 mg/L TCLP and meet § 268.48 standards [8]
	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.)	Lead	7439–92–1	NA	RLEAD
	Radioactive Lead Solids Subcategory (Note: These lead solids include, but are not limited to, all forms of lead shielding and other elemental forms of lead. These lead solids do not include treatment residuals such as hydroxide 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.)	Lead	7439–92–1	NA	MACRO
D009 [9]	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)	Mercury	7439–97–6	NA	IMERC; OR RMERC

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
	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)	Mercury	7439–97–6	NA	RMERC
	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)	Mercury	7439–97–6	NA	0.20 mg/L TCLP and meet § 268.48 standards [8]
	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 gm/kg total mercury and that are not residues from RMERC. (Low Mercury Subcategory)	Mercury	7439–97–6	NA	0.025 mg/L TCLP and meet § 268.48 standards [8]
	All D009 wastewaters.	Mercury	7439–97–6	0.15 mg/L TCLP and meet § 268.48 standards [8]	NA
	Elemental mercury contaminated with radioactive materials. (Note: This subcategory consists of nonwastewaters only.)	Mercury	7439–97–6	NA	AMLGM
	Hydraulic oil contaminated with Mercury Radioactive Materials Subcategory. (Note: This subcategory consists of nonwastewaters only.)	Mercury	7439–97–6	NA	IMERC
D010 [9]	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for selenium based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Selenium	7782–49–2	0.82 and meet § 268.48 standards [8]	5.7 mg/L TCLP and meet § 268.48 standards [8]
D011 [9]	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for silver based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Silver	7440–22–4	0.43 and meet § 268.48 standards [8]	0.14 mg/L TCLP and meet § 268.48 standards [8]
D012 [9]	Wastes that are TC for Endrin based on the TCLP in SW846 Method 1311.	Endrin	72–20–8	BIODG; or CMBST	0.13 and meet § 268.48 standards [8]

		Endrin aldehyde	7421–93–4	BIODG; or CMBST	0.13 and meet § 268.48 standards [8]
D013 [9]	Wastes that are TC for Lindane based on the TCLP in SW846 Method 1311.	alpha-BHC	319–84–6	CARBN; or CMBST	0.066 and meet § 268.48 standards [8]
		beta-BHC	319–85–7	CARBN; or CMBST	0.066 and meet § 268.48 standards [8]
		delta-BHC	319–86–8	CARBN; or CMBST	0.066 and meet § 268.48 standards [8]
		gamma-BHC (Lindane)	58–89–9	CARBN; or CMBST	0.066 and meet § 268.48 standards [8]
D014 [9]	Wastes that are TC for Methoxychlor based on the TCLP in SW846 Method 1311.	Methoxychlor	72–43–5	WETOX or CMBST	0.18 and meet § 268.48 standards [8]
D015 [9]	Wastes that are TC for Toxaphene based on the TCLP in SW846 Method 1311.	Toxaphene	8001–35–2	BIODG or CMBST	2.6 and meet § 268.48 standards [8]
D16 [9]	Wastes that are TC for 2,4-D (2,4-Dichlorophenoxyacetic acid) based on the TCLP in SW846 Method 1311.	2,4,-D (2,4-Dichlorophenoxyacetic acid)	94–75–7	CHOXD, BIODG, or CMBST	10 and meet § 268.48 standards [8]
D17 [9]	Wastes that are TC for 2,4,5-TP (Silvex) based on the TCLP in SW846 Method 1311.	2,4,5-TP (Silvex)	93–72–1	CHOXD or CMBST	7.9 and meet § 268.48 standards [8]
D018 [9]	Wastes that are TC for Benzene based on the TCLP in SW846 Method 1311.	Benzene	71–43–2	0.14 and meet § 268.48 standards [8]	10 and meet § 268.48 standards [8]
D019 [9]	Wastes that are TC for Carbon tetrachloride based on the TCLP in SW846 Method 1311.	Carbon tetrachloride	56–23–5	0.057 and meet § 268.48 standards [8]	6.0 and meet § 268.48 standards [8]
D020 [9]	Wastes that are TC for Chlordane based on the TCLP in SW846 Method 1311.	Chlordane (alpha and gamma isomers)	57–74–9	0.0033 and meet § 268.48 standards [8]	0.26 and meet § 268.48 standards [8]
D021 [9]	Wastes that are TC for Chlorobenzene based on the TCLP in SW846 Method 1311.	Chlorobenzene	108–90–7	0.057 and meet § 268.48 standards [8]	6.0 and meet § 268.48 standards [8]

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
D022 [9]	Wastes that are TC for Chloroform based on the TCLP in SW846 Method 1311.	Chloroform	67–66–3	0.046 and meet § 268.48 standards [8]	6.0 and meet § 268.48 standards [8]
D023 [9]	Wastes that are TC for o-Cresol based on the TCLP in SW846 Method 1311.	o-Cresol	95–48–7	0.11 and meet § 268.48 standards [8]	5.6 and meet § 268.48 standards [8]
D024 [9]	Wastes that are TC for m-Cresol based on the TCLP in SW846 Method 1311.	m-Cresol (difficult to distinguish from p-cresol)	108–39–4	0.77 and meet § 268.48 standards [8]	5.6 and meet § 268.48 standards [8]
D025 [9]	Wastes that are TC for p-Cresol based on the TCLP in SW846 Method 1311.	p-Cresol (difficult to distinguish from m-cresol)	106–44–5	0.77 and meet § 268.48 standards [8]	5.6 and meet § 268.48 standards [8]
D026 [9]	Wastes that are TC for Cresols (Total) based on the TCLP in SW846 Method 1311.	Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)	1319–77–3	0.88 and meet § 268.48 standards [8]	11.2 and meet § 268.48 standards [8]
D027 [9]	Wastes that are TC for p-Dichlorobenzene based on the TCLP in SW846 Method 1311.	p-Dichlorobenzene (1,4-Dichlorobenzene)	106–46–7	0.090 and meet § 268.48 standards [8]	6.0 and meet § 268.48 standards [8]
D028 [9]	Wastes that are TC for 1,2-Dichloroethane based on the TCLP in SW846 Method 1311.	1,2-Dichloroethane	107–06–2	0.21 and meet § 268.48 standards [8]	6.0 and meet § 268.48 standards [8]
D029 [9]	Wastes that are TC for 1,1-Dichloroethylene based on the TCLP in SW846 Method 1311.	1,1-Dichloroethylene	75–35–4	0.025 and meet § 268.48 standards [8]	6.0 and meet § 268.48 standards [8]
D030 [9]	Wastes that are TC for 2,4-Dinitrotoluene based on the TCLP in SW846 Method 1311.	2,4-Dinitrotoluene	121–14–2	0.32 and meet § 268.48 standards [8]	140 and meet § 268.48 standards [8]
D031 [9]	Wastes that are TC for Heptachlor based on the TCLP in SW846 Method 1311.	Heptachlor	76–44–8	0.0012 and meet § 268.48 standards [8]	0.066 and meet § 268.48 standards [8]

		Heptachlor epoxide	1024–57–3	0.016 and meet § 268.48 standards [8]	0.066 and meet § 268.48 standards [8]
D032 [9]	Wastes that are TC for Hexachlorobenzene based on the TCLP in SW846 Method 1311.	Hexachlorobenzene	118–74–1	0.055 and meet § 268.48 standards [8]	10 and meet § 268.48 standards [8]
D033 [9]	Wastes that are TC for Hexachlorobutadiene based on the TCLP in SW846 Method 1311.	Hexachlorobutadiene	87–68–3	0.055 and meet § 268.48 standards [8]	5.6 and meet § 268.48 standards [8]
D034 [9]	Wastes that are TC for Hexachloroethane based on the TCLP in SW846 Method 1311.	Hexachloroethane	67–72–1	0.055 and meet § 268.48 standards [8]	30 and meet § 268.48 standards [8]
D035 [9]	Wastes that are TC for Methyl ethyl ketone based on the TCLP in SW846 Method 1311.	Methyl ethyl ketone	78–93–3	0.28 and meet § 268.48 standards [8]	36 and meet § 268.48 standards [8]
D036 [9]	Wastes that are TC for Nitrobenzene based on the TCLP in SW846 Method 1311.	Nitrobenzene	98–95–3	0.068 and meet § 268.48 standards [8]	14 and meet § 268.48 standards [8]
D037 [9]	Wastes that are TC for Pentachlorophenol based on the TCLP in SW846 Method 1311.	Pentachlorophenol	87–86–5	0.089 and meet § 268.48 standards [8]	7.4 and meet § 268.48 standards [8]
D038 [9]	Wastes that are TC for Pyridine based on the TCLP in SW846 Method 1311.	Pyridine	110–86–1	0.014 and meet § 268.48 standards [8]	16 and meet § 268.48 standards [8]
D039 [9]	Wastes that are TC for Tetrachloroethylene based on the TCLP in SW846 Method 1311.	Tetrachloroethylene	127–18–4	0.056 and meet § 268.48 standards [8]	6.0 and meet § 268.48 standards [8]
D040 [9]	Wastes that are TC for Trichloroethylene based on the TCLP in SW846 Method 1311.	Trichloroethylene	79–01–6	0.054 and meet § 268.48 standards [8]	6.0 and meet § 268.48 standards [8]
D041 [9]	Wastes that are TC for 2,4,5-Trichlorophenol based on the TCLP in SW846 Method 1311.	2,4,5-Trichlorophenol	95–95–4	0.18 and meet § 268.48 standards [8]	7.4 and meet § 268.48 standards [8]
D042 [9]	Wastes that are TC for 2,4,6-Trichlorophenol based on the TCLP in SW846 Method 1311.	2,4,6-Trichlorophenol	88–06–2	0.035 and meet § 268.48 standards [8]	7.4 and meet § 268.48 standards [8]

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
D043 [9]	Wastes that are TC for Vinyl chloride based on the TCLP in SW846 Method 1311.	Vinyl chloride	75–01–4	0.27 and meet § 268.48 standards [8]	6.0 and meet § 268.48 standards [8]
F001, F002, F003, F004, & F005	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, methanol, methylene chloride, methyl ethyl ketone, methyl isobutyl ketone, nitrobenzene, 2-nitropropane, pyridine, 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.	Acetone	67–64–1	0.28	160
		Benzene	71–43–2	0.14	10
		n-Buthyl alcohol	71–36–3	5.6	2.6
		Carbon disulfide	75–15–0	3.8	NA
		Carbon tetrachloride	56–23–5	0.057	6.0
		Chlorobenzene	108–90–7	0.057	6.0
		o-Cresol	95–48–7	0.11	5.6
		m-Cresol (difficult to distinguish from p-cresol)	108–39–4	0.77	5.6
		p-Cresol (difficult to distinguish from m-cresol)	106–44–5	0.77	5.6
		Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)	1319–77–3	0.88	11.2
		Cyclohexanone	108–94–1	0.36	NA
		o-Dichlorobenzene	95–50–1	0.088	6.0
		Ethyl acetate	141–78–6	0.34	33
		Ethyl benzene	100–41–4	0.057	10
		Ethyl ether	60–29–7	0.12	160
		Isobutyl alcohol	78–83–1	5.6	170
		Methanol	67–56–1	5.6	NA
		Methylene chloride	75–9–2	0.089	30
		Methyl ethyl ketone	78–93–3	0.28	36
		Methyl isobutyl ketone	108–10–1	0.14	33
		Nitrobenzene	98–95–3	0.068	14
		Pyridine	110–86–1	0.014	16
		Tetrachloroethylene	127–18–4	0.056	6.0
		Toluene	108–88–3	0.080	10
		1,1,1-Trichloroethane	71–55–6	0.054	6.0
		1,1,2-Trichloroethane	79–00–5	0.054	6.0
		1,1,2-Trichloro-1,2,2-trifluoroethane	76–13–1	0.057	30
		Trichloroethylene	79–01–6	0.054	6.0
		Trichlorofluoromethane	75–69–4	0.020	30

		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330–20–7	0.32	30
	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	75–15–0 108–94–1 67–56–1	3.8 0.36 5.6	4.8 mg/L TCLP 0.75 mg/L TCLP 0.75 mg/L TCLP
	F005 solvent waste containing 2-Nitropropane as the only listed F001–5 solvent.	2-Nitropropane	79–46–9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
	F005 solvent waste containing 2-Ethoxyethanol as the only listed F001–5 solvent.	2-Ethoxyethanol	110–80–5	BIODG; or CMBST	CMBST
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.	Cadmium Chromium (Total) Cyanides (Total) [7] Cyanides (Amenable) [7] Lead Nickel Silver	7440–43–9 7440–47–3 57–12–5 57–12–5 7439–92–1 7440–02–0 7440–22–4	0.69 2.77 1.2 0.86 0.69 3.98 NA	0.11 mg/L TCLP 0.60 mg/L TCLP 590 30 0.75 mg/L TCLP 11 mg/L TCLP 0.14 mg/L TCLP
F007	Spent cyanide plating bath solutions from electroplating operations.	Cadmium Chromium (Total) Cyanides (Total) [7] Cyanides (Amenable) [7] Lead Nickel Silver	7440–43–9 7440–47–3 57–12–5 57–12–5 7439–92–1 7440–02–0 7440–22–4	NA 2.77 1.2 0.86 0.69 3.98 NA	0.11 mg/L TCLP 0.60 mg/L TCLP 590 30 0.75 mg/L TCLP 11 mg/L TCLP 0.14 mg/L TCLP
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.	Cadmium Chromium (Total) Cyanides (Total) [7] Cyanides (Amenable) [7] Lead Nickel Silver	7440–43–9 7440–47–3 57–12–5 57–12–5 7439–92–1 7440–02–0 7440–22–4	NA 2.77 1.2 0.86 0.69 3.98 NA	0.11 mg/L TCLP 0.60 mg/L TCLP 590 30 0.75 mg/L TCLP 11 mg/L TCLP 0.14 mg/L TCLP
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.	Cadmium Chromium (Total) Cyanides (Total) [7] Cyanides (Amenable) [7] Lead Nickel Silver	7440–43–9 7440–47–3 57–12–5 57–12–5 7439–92–1 7440–02–0 7440–22–4	NA 2.77 1.2 0.86 0.69 3.98 NA	0.11 mg/L TCLP 0.60 mg/L TCLP 590 30 0.75 mg/L TCLP 11 mg/L TCLP 0.14 mg/L TCLP
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.	Cyanides (Total) [7] Cyanides (Amenable) [7]	57–12–5 57–12–5	1.2 0.86	590 NA

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.	Cadmium	7440–43–9	NA	0.11 mg/L TCLP
		Chromium (Total)	7440–47–3	2.77	0.60 mg/L TCLP
		Cyanides (Total) [7]	57–12–5	1.2	590
		Cyanides (Amenable) [7]	57–12–5	0.86	30
		Lead	7439–92–1	0.69	0.75 mg/L TCLP
		Nickel	7440–02–0	3.98	11 mg/L TCLP
		Silver	7440–22–4	NA	0.14 mg/L TCLP
F012	Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.	Cadmium	7440–43–9	NA	0.11 mg/L TCLP
		Chromium (Total)	7440–47–3	2.77	0.60 mg/L TCLP
		Cyanides (Total) [7]	57–12–5	1.2	590
		Cyanides (Amenable) [7]	57–12–5	0.86	30
		Lead	7439–92–1	0.69	0.75 mg/L TCLP
		Nickel	7440–02–0	3.98	11 mg/L TCLP
		Silver	7440–22–4	NA	0.14 mg/L TCLP
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process.	Chromium (Total)	7440–47–3	2.77	0.60 mg/L TCLP
		Cyanides (Total) [7]	57–12–5	1.2	590
		Cyanides (Amendable) [7]	57–12–5	0.86	30
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-trichlorophenol (F020); (2) pentachlorophenol, or of intermediates used to produce its derivatives (i.e., F021); (3) tetra-, 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-trichlorophenol (F023); (2) tetra- penta, or hexachlorobenzenes under alkaline conditions (i.e., F026).	HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		Hx CDFs (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
		Pentachlorophenol	87–86–5	0.089	7.4
		TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
		2,4,5-Trichlorophenol	95–95–4	0.18	7.4
		2,4-6-Trichlorophenol	88–06–2	0.035	7.4
		2,3,4,6-Tetrachlorophenol	58–90–2	0.030	7.4

F024	Process wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in § 261.31 or § 261.32).	All F024 wastes	NA	CMBST [11]	CMBST [11]
		2-Chloro-1,3-butadiene	126–99–8	0.057	0.28
		3-Chloropropylene	107–05–1	0.036	30
		1,1-Dichloroethane	75–34–3	0.059	6.0
		1,2-Dichloroethane	107–06–2	0.21	6.0
		1,2-Dichloropropane	78–87–5	0.85	18
		cis-1,3-Dichloropropylene	10061–01–5	0.036	18
		trans-1-3-Dichloropropylene	10061–02–6	0.036	18
		bis(2-Ethylhexyl)phthalate	117–81–7	0.28	28
		Hexachloroethane	67–72–1	0.055	30
		Chromium (Total)	7440–47–3	2.77	0.60 mg/L TCLP
		Nickel	7440–02–0	3.98	11 mg/L TCLP
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	Carbon tetrachloride	56–23–5	0.057	6.0
		Chloroform	67–66–3	0.046	6.0
		1,2-Dichloroethane	107–06–2	0.21	6.0
		1,1-Dichloroethylene	75–35–4	0.025	6.0
		Methylene chloride	75–9–2	0.089	30
		1,1,2-Trichloroethane	79–00–5	0.054	6.0
		Trichloroethylene	79–01–6	0.054	6.0
		Vinyl chloride	75–01–4	0.027	6.0
	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. F025—Spent Filters/Aids and Desiccants Subcategory	Carbon tetrachloride	56–23–5	0.057	6.0
		Chloroform	67–66–3	0.046	6.0
		Hexachlorobenzene	118–74–1	0.055	10
		Hexachlorobutadiene	87–68–3	0.055	5.6
		Hexachloroethane	67–72–1	0.055	30
		Methylene chloride	75–9–2	0.089	30
		1,1,2-Trichloroethane	79–00–5	0.054	6.0
		Trichloroethylene	79–01–6	0.054	6.0
		Vinyl chloride	75–01–4	0.27	6.0
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.)	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
		Pentachlorophenol	87–86–5	0.089	7.4
		TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
		2,4,5-Trichlorophenol	95–95–4	0.18	7.4
		2,4,6-Trichlorophenol	88–06–2	0.035	7.4
		2,3,4,6-Tetrachlorophenol	58–90–2	0.030	7.4

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Wastes Nos. F020, F021, F023, F026, and F027.	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
		Pentachlorophenol	87–86–5	0.089	7.4
		TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
		2,4,5-Trichlorophenol	95–95–4	0.18	7.4
		2,4,6-Trichlorophenol	88–06–2	0.035	7.4
		2,3,4,6-Tetrachlorophenol	58–90–2	0.030	7.4
F032	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with § 261.35 of this chapter or potentially cross-contaminated wastes that are otherwise currently regulated as hazardous wastes (i.e., F034 or F035), and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or penta-chlorophenol.	Acenaphthene	83–32–9	0.059	3.4
		Anthracene	120–12–7	0.059	3.4
		Benz(a)anthracene	56–55–3	0.059	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205–99–2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207–08–9	0.11	6.8
		Benzo(a)pyrene			
		Chrysene	50–32–8	0.061	3.4
		Dibenz(a,h) anthracene			
		2-4-Dimethyl phenol	218–01–9	0.059	3.4
		Fluorene	53–70–3	0.055	8.2
		Hexachlorodibenzo-p-dioxins	105–67–9	0.036	14
			86–73–7	0.059	3.4
		Hexachlorodibenzofurans	NA	0.000063, or CMBST [11]	0.001, or CMBST [11]
			NA	0.000063, or CMBST [11]	0.001, or CMBST [11]
		Indeno (1,2,3-c,d) pyrene	193–39–5	0.0055	3.4
		Naphthalene	91–20–3	0.059	5.6
		Pentachlorodibenzo-p-dioxins	NA	0.000063, or CMBST [11]	0.001, or CMBST [11]

		Pentachlorodibenzofurans	NA	0.00035, or CMBST [11]	0.001, or CMBST [11]
		Pentachlorophenol	87–86–5	0.089	7.4
		Phenanthrene	85–01–8	0.059	5.6
		Phenol	108–95–2	0.039	6.2
		Pyrene	129–00–0	0.067	8.2
		Tetrachlorodibenzo-p-dioxins	NA	0.000063, or CMBST [11]	0.001, or CMBST [11]
		Tetrachlorodibenzofurans	NA	0.000063, or CMBST [11]	0.001, or CMBST [11]
		2,3,4,6-Tetrachlorophenol	58–90–2	0.030	7.4
		2,4,6-Trichlorophenol	88–06–2	0.035	7.4
		Arsenic	7440–38–2	1.4	5.0 mg/L TCLP
		Chromium (Total)	7440–47–3	2.77	0.60 mg/L TCLP
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.	Acenaphthene	83–32–9	0.059	3.4
		Anthracene	120–12–7	0.059	3.4
		Benz(a)anthracene	56–55–3	0.059	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205–99–2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207–08–9	0.11	6.8
		Benzo(a)pyrene	50–32–8	0.061	3.4
		Chrysene	218–01–9	0.059	3.4
		Dibenz(a,h)anthracene	53–70–3	0.055	8.2
		Fluorene	86–73–7	0.059	3.4
		Indeno(1,2,3-c,d)pyrene	193–39–5	0.0055	3.4
		Naphthalene	91–20–3	0.059	5.6
		Phenanthrene	85–01–8	0.059	5.6
		Pyrene	129–00–0	0.067	8.2
		Arsenic	7440–38–2	1.4	5.0 mg/L TCLP
		Chromium (Total)	7440–47–3	2.77	0.60 mg/L TCLP
F035	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.	Arsenic	7440–38–2	1.4	5.0 mg/L TCLP
		Chromium (Total)	7440–47–3	2.77	0.60 mg/L TCLP

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
F037	Petroleum refinery primary oil/water/solids separation sludge—Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in: oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in § 261.31(b)(2) (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing.	Acenaphthene	83–32–9	0.059	NA
		Anthracene	120–12–7	0.059	3.4
		Benzene	71–43–2	0.14	10
		Benz(a)anthracene	56–55–3	0.059	3.4
		Benzo(a)pyrene	50–32–8	0.061	3.4
		bis(2-Ethylhexyl) phthalate	117–81–7	0.28	28
		Chrysene	218–01–9	0.059	3.4
		Di-n-butyl phthalate	84–74–2	0.057	28
		Ethylbenzene	100–41–4	0.057	10
		Fluorene	86–73–7	0.059	NA
		Naphthalene	91–20–3	0.059	5.6
		Phenanthrene	85–01–8	0.059	5.6
		Phenol	108–95–2	0.039	6.2
		Pyrene	129–00–0	0.067	8.2
		Toluene	108–88–3	0.080	10
		Xylenes-mixed isomers (sum of o, m-, and p-xylene concentrations)	1330–20–7	0.32	30
		Chromium (Total)	7440–47–3	2.77	0.60 mg/L TCLP
		Cyanides (Total) [7]	57–12–5	1.2	590
		Lead	7439–92–1	0.69	NA
		Nickel	7440–02–0	NA	11 mg/L TCLP

F038	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.	Benzene	71–43–2	0.14	10
		Benzo(a)pyrene	50–32–8	0.061	3.4
		bis(2-Ethylhexyl) phthalate	117–81–7	0.28	28
		Chrysene	218–01–9	0.059	3.4
		Di-n-butyl phthalate	84–74–2	0.057	28
		Ethylbenzene	100–41–4	0.057	10
		Fluorene	86–73–7	0.059	NA
		Naphthalene	91–20–3	0.059	5.6
		Phenanthrene	85–01–8	0.059	5.6
		Phenol	108–95–2	0.039	6.2
		Pyrene	129–00–0	0.067	8.2
		Toluene	108–88–3	0.080	10
		Xylenes-mixed isomers (sum of o, m-, and p-xylene concentrations)	1330–20–7	0.32	30
		Chromium (Total)	7440–47–3	2.77	0.60 mg/L TCLP
		Cyanides (Total)[7]	57–12–5	1.2	590
		Lead	7439–92–1	0.69	NA
		Nickel	7440–02–0	NA	11 mg/L TCLP
F039	Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under subpart D of this part. (Leachate resulting from the disposal of one or more of the following EPA Hazardous Wastes and no other Hazardous Wastes retains its EPA Hazardous Waste Number(s): F020, F021, F022, F026, F027, and/or F028.)	Acenaphthylene	208–96–8	0.059	3,4
		Acenaphthene	83–32–9	0.059	3.4
		Acetone	67–64–1	0.28	160
		Acetonitrile	75–05–8	5.6	NA
		Acetophenone	96–86–2	0.010	9.7
		2-Acetylaminofluorene	53–96–3	0.059	140
		Acrolein	107–02–8	0.29	NA
		Acrylonitrile	107–13–1	0.24	84
		Aldrin	309–00–2	0.021	0.066
		4-Aminobiphenyl	92–67–1	0.13	NA
		Aniline	62–53–3	0.81	14
		Anthracene	120–12–7	0.059	3.4
		Aramite	140–57–8	0.36	NA
		alpha-BHC	319–84–6	0.00014	0.066
		beta-BHC	319–85–7	0.00014	0.066
		delta-BHC	319–86–8	0.023	0.066
		gamma-BHC	58–89–9	0.0017	0.066
		Benzene	71–43–2	0.14	10
		Benz(a)anthracene	56–55–3	0.059	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205–99–2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207–08–9	0.11	6.8
		Benzo(g,h,i)perylene	191–24–2	0.0055	1.8
		Benzo(a)pyrene	50–32–8	0.061	3.4
		Bromodichloromethane	75–27–4	0.35	15
		Methyl bromide (Bromomethane)	74–83–9	0.11	15
		4-Bromophenyl phenyl ether	101–55–3	0.055	15
		n-Butyl alcohol	71–36–3	5.6	2.6
		Butyl benzyl phthalate	85–68–7	0.017	28
		2-sec-Buty-4,6-dinitrophenol (Dinoseb)	88–85–7	0.066	2.5

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
		Carbon disulfide	75–15–0	3.8	NA
		Carbon tetrachloride	56–23–5	0.057	6.0
		Chlordane (alpha and gamma isomers)	57–74–9	0.0033	0.26
		p-Chloroaniline	106–47–8	0.46	16
		Chlorobenzene	108–90–7	0.057	6.0
		Chlorobenzilate	510–15–6	0.10	NA
		2-Chloro-1,3-butadiene	126–99–8	0.057	NA
		Chlorodibromomethane	124–48–1	0.057	15
		Chloroethane	75–00–3	0.27	6.0
		bis(2-Chloroethoxy)methane	111–91–1	0.036	7.2
		bis(2-Chloroethyl)ether	111–44–4	0.033	6.0
		Chloroform	67–66–3	0.046	6.0
		bis(2-Chloroisopropyl)ether	39638–32–9	0.055	7.2
		p-Chloro-m-cresol	59–50–7	0.018	14
		Chloromethane (Methyl chloride)	74–87–3	0.19	30
		2-Chloronaphthalene	91–58–7	0.055	5.6
		2-Chlorophenol	95–57–8	0.044	5.7
		3-Chloropropylene	107–05–1	0.036	30
		Chrysene	218–01–9	0.059	3.4
		o-Cresol	95–48–7	0.11	5.6
		m-Cresol (difficult to distinguish from p-cresol)	108–39–4	0.77	5.6
		p-Cresol (difficult to distinguish from m-cresol)	106–44–5	0.77	5.6
		Cyclohexanone	108–94–1	0.36	NA
		1,2-Dibromo-3-chloropropane	96–12–8	0.11	15
		Ethylene dibromide (1,2-Dibromoethane)	106–93–4	0.028	15
		Dibromomethane	74–95–3	0.11	15
		2,4-D (2,4-Dichlorophenoxyacetic acid)	94–75–7	0.72	10
		o,p'-DD	53–19-0	0.023	0.087
		p,p'-DDD	72–54–8	0.023	0.087
		o,p'-DDE	3424–82–6	0.031	0.087
		p,p'-DDE	72–55–9	0.031	0.087
		o,p'-DDT	789–02–6	0.0039	0.087
		p,p'-DDT	50–29–3	0.0039	0.087
		Dibenz(a,h)anthracene	53–70–3	0.055	8.2
		Dibenz(a,e)pyrene	192–65–4	0.061	NA

m-Dichlorobenzene	541–73–1	0.036	6.0
o-Dichlorobenzene	95–50–1	0.088	6.0
p-Dichlorobenzene	106–46–7	0.090	6.0
Dichlorodifluoromethane	75–71–8	0.23	7.2
1,1-Dichloroethane	75–34–3	0.059	6.0
1,2-Dichloroethane	107–06–2	0.21	6.0
1,1-Dichloroethylene	75–35–4	0.025	6.0
trans-1,2-Dichloroethylene	156–60–5	0.054	30
2,4-Dichlorophenol	120–83–2	0.044	14
2,6-Dichlorophenol	87–65–0	0.044	14
1,2-Dichloropropane	78–87–5	0.85	18
cis-1,3-Dichloropropylene	10061–01–5	0.036	18
trans-1,3-Dichloropropylene	10061–02–6	0.036	18
Dieldrin	60–57–1	0.017	0.13
Diethyl phthalate	84–66–2	0.20	28
2-4-Dimethyl phenol	105–67–9	0.036	14
Dimethyl phthalate	131–11–3	0.047	28
Di-n-butyl phthalate	84–74–2	0.057	28
1,4-Dinitrobenzene	100–25–4	0.32	2.3
4,6-Dinitro-o-cresol	534–52–1	0.28	160
2,4-Dinitrophenol	51–28–5	0.12	160
2,4-Dinitrotoluene	121–14–2	0.32	140
2,6-Dinitrotoluene	606–20–2	0.55	28
Di-n-octyl phthalate	117–84–0	0.017	28
Di-n-propylnitrosamine	621–64–7	0.40	14
1,4-Dioxane	123–91–1	12.0	170
Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122–39–4	0.92	NA
Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86–30–6	0.92	NA
1,2-Diphenylhydrazine	122–66–7	0.087	NA
Disulfoton	298–04–4	0.017	6.2
Endosulfan I	939–98–8	0.023	0.066
Endosulfan II	33213–6–5	0.029	0.13
Endosulfan sulfate	1031–07–8	0.029	0.13
Endrin	72–20–8	0.0028	0.13
Endrin aldehyde	7421–93–4	0.025	0.13
Ethyl acetate	141–78–6	0.34	33
Ethyl cyanide (Propanenitrile)	107–12–0	0.24	360
Ethyl benzene	100–41–4	0.057	10
Ethyl ether	60–29–7	0.12	160
bis(2-Ethylhexyl) phthalate	117–81–7	0.28	28
Ethyl methacrylate	97–63–2	0.14	160
Ethylene oxide	75–21–8	0.12	NA
Famphur	52–85–7	0.017	15
Fluoranthene	206–44–0	0.068	3.4
Fluorene	86–73–7	0.059	3.4
Heptachlor	76–44–8	0.0012	0.066
Heptachlor epoxide	1024–57–3	0.016	0.066
1,2,3,4,6,7,8-Heptachlorodibenzo-*p*-dioxin (1,2,3,4,6,7,8-HpCDD)	35822–46–9	0.000035	0.0025

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
		1, 2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562–39–4	0.000035	0.0025
		1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673–89–7	0.000035	0.0025
		Hexachlorobenzene	118–74–1	0.055	10
		Hexachlorobutadiene	87–68–3	0.055	5.6
		Hexachlorocyclopentadiene	77–47–4	0.057	2.4
		HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
		Hexachloroethane	67–72–1	0.055	30
		Hexachloropropylene	1888–71–7	0.035	30
		Indeno (1,2,3-c,d) pyrene	193–39–5	0.0055	3.4
		Indomethane	74–88–4	0.019	65
		Isobutyl alcohol	78–83–1	5.6	170
		Isodrin	465-73-6	0.021	0.066
		Isosafrole	120–58–1	0.081	2.6
		Kepone	143–50–8	0.0011	0.13
		Methacylonitrile	126–98–7	0.24	84
		Methanol	67–56–1	5.6	NA
		Methapyrilene	91–80–5	0.081	1.5
		Methoxychlor	72–43–5	0.25	0.18
		3-Methylcholanthrene	56–49–5	0.0055	15
		4,4-Methylene bis(2-chloroaniline)	101–14–4	0.50	30
		Methylene chloride	75–09–2	0.089	30
		Methyl ethyl ketone	78–93–3	0.28	36
		Methyl isobutyl ketone	108–10–1	0.14	33
		Methyl methacrylate	80–62–6	0.14	160
		Methyl methanesulfonate	66–27–3	0.018	NA
		Methyl parathion	298–00–0	0.014	4.6
		Naphthalene	91–20–3	0.059	5.6
		2-Naphthylamine	91–59–8	0.52	NA
		p-Nitroaniline	100–01–6	0.028	28
		Nitrobenzene	98–95–3	0.068	14
		5-Nitro-o-toluidine	99–55–8	0.32	28
		p-Nitrophenol	100–02–7	0.12	29
		N-Nitrosodiethylamine	55–18–5	0.40	28
		N-Nitrosodimethylamine	62–75–9	0.40	NA

N-Nitroso-di-n-butylamine	924–16–3	0.40	17
N-Nitrosomethylethylamine	10595–95–6	0.40	2.3
N-Nitrosomorpholine	59–89–2	0.40	2.3
N-Nitrosopiperidine	100–75–4	0.013	35
N-Nitrosopyrrolidine	930–55–2	0.013	35
1,2,3,4,6,7,8,9-Octachlorodibenzo-*p*-dioxin (OCDD)	3268–87–9	0.000063	0.005
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001–02–0	0.000063	0.005
Parathion	56–38–2	0.014	4.6
Total PCBs (sum of all PCB isomers, or all Aroclors)	1336–36–3	0.10	10
Pentachlorobenzene	608–93–5	0.055	10
PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
Pentachloronitrobenzene	82–68–8	0.055	4.8
Pentachlorophenol	87–86–5	0.089	7.4
Phenacetin	62–44–2	0.081	16
Phenanthrene	85–01–8	0.059	5.6
Phenol	108–95–2	0.039	6.2
Phorate	298–02–2	0.021	4.6
Phthalic anhydride	85–44–9	0.055	NA
Pronamide	23950–58–5	0.093	1.5
Pyrene	129–00–0	0.067	8.2
Pyridine	110–86–1	0.014	16
Safrole	94–59–7	0.081	22
Silvex (2,4,5-TP)	93–72–1	0.72	7.9
2,4,5-T	93–76–5	0.72	7.9
1,2,4,5-Tetrachlorobenzene	95–94–3	0.055	14
TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
1,1,1,2-Tetrachloroethane	630–20–6	0.057	6.0
1,1,2,2-Tetrachloroethane	79–34–6	0.057	6.0
Tetrachloroethylene	127–18–4	0.056	6.0
2,3,4,6-Tetrachlorophenol	58–90–2	0.030	7.4
Toluene	108–88–3	0.080	10
Toxaphene	8001–35–2	0.0095	2.6
Bromoform (Tribromomethane)	75–25–2	0.63	15
1,2,4-Trichlorobenzene	120–82–1	0.055	19
1,1,1-Trichloroethane	71–55–6	0.054	6.0
1,1,2-Trichloroethane	79–00–5	0.054	6.0
Trichloroethylene	79–01–6	0.054	6.0
Trichlorofluoromethane	75–69–4	0.020	30
2,4,5-Trichlorophenol	95–95-4	0.18	7.4
2,4,6-Trichlorophenol	88–06–2	0.035	7.4
1,2,3-Trichloropropane	96–18–4	0.85	30
1,1,2-Trichloro-1,2,2-trifluoroethane	76–13–1	0.057	30

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
		tris(2,3-Dibromopropyl) phosphate	126–72–7	0.11	NA
		Vinyl chloride	75–01–4	0.27	6.0
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330–20–7	0.32	30
		Antimony	7440–36–0	1.9	1.15 mg/L TCLP
		Arsenic	7440–38–2	1.4	5.0 mg/L TCLP
		Barium	7440–39–3	1.2	21 mg/L TCLP
		Beryllium	7440–41–7	0.82	NA
		Cadmium	7440–43–9	0.69	0.11 mg/L TCLP
		Chromium (Total)	7440–47–3	2.77	0.60 mg/L TCLP
		Cyanides (Total) [7]	57–12–5	1.2	590
		Cyanides (Amenable) [7]	57–12–5	0.86	NA
		Fluoride	16984–48–8	35	NA
		Lead	7439–92–1	0.69	0.75 mg/L TCLP
		Mercury	7439–97–6	0.15	0.25 mg/L TCLP
		Nickel	7440–02–0	3.98	11 mg/L TCLP
		Selenium	7782–49–2	0.82	5.7 mg/L TCLP
		Silver	7440–22–4	0.43	0.14 mg/L TCLP
		Sulfide	8496–25–8	14	NA
		Thallium	7440–28–0	1.4	NA
		Vanadium	7440–62–2	4.3	NA
K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.	Naphthalene	91–20–3	0.059	5.6
		Pentachlorophenol	87–86–5	0.089	7.4
		Phenanthrene	85–01–8	0.059	5.6
		Pyrene	129–00–0	0.067	8.2
		Toluene	108–88–3	0.080	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330–20–7	0.32	30
		Lead	7439–92–1	0.69	0.75 mg/L TCLP
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.	Chromium (Total)	7440–47–3	2.77	0.60 mg/L TCLP
		Lead	7439–92–1	0.69	0.75 mg/L TCLP
K003	Wastewater treatment sludge from the production of molybdate orange pigments.	Chromium (Total)	7440–47–3	2.77	0.60 mg/L TCLP
		Lead	7439–92–1	0.69	0.75 mg/L TCLP

K004	Wastewater treatment sludge from the production of zinc yellow pigments.	Chromium (Total) Lead	7440–47–3 7439–92–1	2.77 0.69	0.60 mg/L TCLP 0.75 mg/L TCLP
K005	Wastewater treatment sludge from the production of chrome green pigments.	Chromium (Total) Lead Cyanides (Total)[7]	7440–47–3 7439–92–1 57–12–5	2.77 0.69 1.2	0.60 mg/L TCLP 0.75 mg/L TCLP 590
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous).	Chromium (Total) Lead	7440–47–3 7439–92–1	2.77 0.69	0.60 mg/L TCLP 0.75 mg/L TCLP
	Wastewater treatment sludge from the production of chrome oxide green pigments (hydrated).	Chromium (Total) Lead	7440–47–3 7439–92–1	2.77 0.69	0.60 mg/L TCLP NA
K007	Wastewater treatment sludge from the production of iron blue pigments.	Chromium (Total) Lead Cyanides (Total)[7]	7440–47–3 7439–92–1 57–12–5	2,77 0.69 1.2	0.60 mg/L TCLP 0.75 mg/L TCLP 590
K008	Oven residue from the production of chrome oxide green pigments.	Chromium (Total) Lead	7440–47–3 7439–92–1	2.77 0.69	0.60 mg/L TCLP 0.75 mg/L TCLP
K009	Distillation bottoms from the production of acetaldehyde from ethylene.	Chloroform	67–66–3	0.046	6.0
K010	Distillation side cuts from the production of acetaldehyde from ethylene.	Chloroform	67–66–3	0.046	6.0
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile.	Acetonitrile Acrylonitrile Acrylamide Benzene Cyanide (Total)	75–05–8 107–13–1 79–06–1 71–43–2 57–12–5	5.6 0.24 19 0.14 1.2	38 84 23 10 590
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile.	Acetonitrile Acrylonitrile Acrylamide Benzene Cyanide (Total)	75–05–8 107–13–1 79–06–1 71–43–2 57–12–5	5.6 0.24 19 0.14 1.2	38 84 23 10 590
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile.	Acetonitrile Acrylonitrile Acrylamide Benzene Cyanide (Total)	75–05–8 107–13–1 79–06–1 71–43–2 57–12–5	5.6 0.24 19 0.14 1.2	38 84 23 10 590
K015	Still bottoms from the distillation of benzyl chloride.	Anthracene Benzal chloride Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene) Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene) Phenanthrene Toluene Chromium (Total)	120–12–7 98–87–3 205–99–2 207–08–9 85–01–8 108–88–3 7440–47–3	0.059 0.055 0.11 0.11 0.059 0.080 2.77	3.4 6.0 6.8 6.8 5.6 10 0.60 mg/L TCLP

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
		Nickel	7440–02–0	3.98	11 mg/L TCLP
K016	Heavy ends or distillation residues from the production of carbon tetrachloride.	Hexachlorobenzene	118–74–1	0.055	10
		Hexachlorobutadiene	87–68–3	0.055	5.6
		Hexachlorocyclopentadiene	77–47–4	0.057	2.4
		Hexachloroethane	67–72–1	0.055	30
		Tetrachloroethylene	127–18–4	0.056	6.0
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.	bis(2-Chloroethyl)ether	111–44–4	0.033	6.0
		1,2-Dichloropropane	78–87–5	0.85	18
		1,2,3-Trichloropropane	96–18–4	0.85	30
K018	Heavy ends from the fractionation column in ethyl chloride production.	Chloroethane	75–00–3	0.27	6.0
		Chloromethane	74–87–3	0.19	NA
		1,1-Dichloroethane	75–34–3	0.059	6.0
		1,2-Dichloroethane	107–06–2	0.21	6.0
		Hexachlorobenzene	118–74–1	0.055	10
		Hexachlorobutadiene	87–68–3	0.055	5.6
		Hexachloroethane	67–72–1	0.055	30
		Pentachloroethane	76–01–7	NA	6.0
		1,1,1-Trichloroethane	71–55–6	0.054	6.0
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.	bis(2-Chloroethyl)ether	111–44–4	0.033	6.0
		Chlorobenzene	108–90–7	0.057	6.0
		Chloroform	67–66–3	0.046	6.0
		p-Dichlorobenzene	106–46–7	0.090	NA
		1,2-Dichloroethane	107–06–2	0.21	6.0
		Fluorene	86–73–7	0.059	NA
		Hexachloroethane	67–72–1	0.055	30
		Nephthalene	91–20–3	0.059	5.6
		Phenanthrene	85–01–8	0.059	5.6
		1,2,4,5-Tetrachlorobenzene	95–94–3	0.055	NA
		Tetrachloroethylene	127–18–4	0.056	6.0
		1,2,4-Trichlorobenzene	120–82–1	0.055	19
		1,1,1-Trichloroethane	71–55–6	0.054	6.0

K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.	1,2-Dichloroethane 1,1,2,2-Tetrachloroethane Tetrachloroethylene	107–06–2 79–34–6 127–18–4	0.21 0.057 0.056	6.0 6.0 6.0
K021	Aqueous spent antimony catalyst waste from fluoromethanes production.	Carbon tetrachloride Chloroform Antimony	56–23–5 67–66–3 7440–36–0	0.057 0.046 1.9	6.0 6.0 1.15 mg/L TCLP
K022	Distillation bottoms tars from the production of phenol/acetone from cumene.	Toluene Acetophenone Diphenylamine (difficult to distinguish from diphenylnitrosamine) Diphenylnitrosamine (difficult to distinguish from diphenylamine) Phenol Chromium (Total) Nickel	108–88–3 96–86–2 122–39–4 86–30–6 108–95–2 7440–47–3 7440–02–0	0.080 0.010 0.92 0.92 0.039 2.77 3.98	10 9.7 13 13 6.2 0.60 mg/L TCLP 11 mg/L TCLP
K023	Distillation light ends from the production of phthalic anhydride from naphthalene.	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid) Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100–21–0 85–44–9	0.055 0.055	28 28
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene.	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid) Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100–21–0 85–44–9	0.055 0.055	28 28
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene.	NA	NA	LLEXT fb SSTRP fb CARBN; or CMBST	CMBST
K026	Stripping still tails from the production of methyl ethyl pyridines.	NA	NA	CMBST	CMBST
K027	Centrifuge and distillation residues from toluene diisocyanate production.	NA	NA	CARBN; or CMBST	CMBST
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.	1,1-Dichloroethane trans-1,2-Dichloroethylene Hexachlorobutadiene Hexachloroethane Pentachloroethane 1,1,1,2-Tetrachloroethane 1,1,2,2-Tetrachloroethane Tetrachloroethylene 1,1,1-Trichloroethane 1,1,2-Trichloroethane Cadmium Chromium (Total) Lead	75–34–3 156–60–5 87–68–3 67–72–1 76–01–7 630–20–6 79–34–6 127–18–4 71–55–6 79–00–5 7440–43–9 7440–47–3 7439–92–1	0.059 0.054 0.055 0.055 NA 0.057 0.057 0.056 0.054 0.054 0.69 2.77 0.69	6.0 30 5.6 30 6.0 6.0 6.0 6.0 6.0 6.0 NA 0.60 mg/L TCLP 0.75 mg/L TCLP

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
		Nickel	7440–02–0	3.98	11 mg/L TCLP
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane.	Chloroform	67–66–3	0.046	6.0
		1,2-Dichloroethane	107–06–2	0.21	6.0
		1,1-Dichloroethylene	75–35–4	0.025	6.0
		1,1,1-Trichloroethane	71–55–6	0.054	6.0
		Vinyl chloride	75–01–4	0.27	6.0
K030	Column bodies or heavy ends from the combined production of trichloroethylene and perchloroethylene.	o-Dichlorobenzene	95–50–1	0.088	NA
		p-Dichlorobenzene	106–46–7	0.090	NA
		Hexachlorobutadiene	87–68–3	0.055	5.6
		Hexachloroethane	67–72–1	0.055	30
		Hexachloropropylene	1888–71–7	NA	30
		Pentachlorobenzene	608–93–5	NA	10
		Pentachloroethane	76–01–7	NA	6.0
		1,2,4,5-Tetrachlorobenzene	95–94–3	0.055	14
		Tetrachloroethylene	127–18–4	0.056	6.0
		1,2,4-Trichlorobenzene	120–82–1	0.055	19
K031	By-product salts generated in the production of MSMA and cacodylic acid.	Arsenic	7440–38–2	14	5.0 mg/L TCLP
K032	Wastewater treatment sludge from the production of chlordane.	Hexachlorocyclopentadiene	77–47–4	0.057	2.4
		Chlordane (alpha and gamma isomers)	57–74–9	0.0033	0.26
		Heptachlor	76–44–8	0.0012	0.066
		Heptachlor epoxide	1024–57–3	0.016	0.066
K033	Wastewater and scrub water from the clorination of cyclopentadiene in the production of chlordane.	Hexachlorocyclopentadiene	77–47–4	0.057	2.4
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.	Hexachlorocyclopentadiene	77–47–4	0.057	2.4
K035	Wastewater treatment sludges generated in the production of cresote.	Acenaphthene	83–32–9	NA	3.4
		Anthracene	120–12–7	NA	3.4
		Benz(a)anthracene	56–55–3	0.059	3.4
		Bemzo(a)pyrene	50–32–8	0.061	3.4
		Chrysene	218–01–9	0.059	3.4
		o-Cresol	95–48–7	0.11	5.6

		m-Cresol (difficult to distinguish from p-cresol) p-Cresol (difficult to distinguish from m-cresol) Dibenz(a,h)anthracene Fluoranthene Fluorene Indeno(1,2,3-cd)pyrene Naphthalene Phenanthrene Phenol Pyrene	108–39–4 106–44–5 53–70–3 206–44–0 86–73–7 193–39–5 91–20–3 85–01–1 108–95–2 129–00–0	0.77 0.77 NA 0.068 NA NA 0.059 0.059 0.039 0.067	5.6 5.6 8.2 3.4 3.4 3.4 5.6 5.6 6.2 8.2
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 Toluene	298–04–4 108–88–3	0.017 0.080	6.2 10
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 diethylphorphorodithioic 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 p-Dichlorobenzene Pentachlorobenzene 1,2,4,5-Tetrachlorobenzene 1,2,4-Trichlorobenzene	95–50–1 106–46–7 608–93–5 95–94–3 120–82–1	0.088 0.090 0.055 0.055 0.055	6.0 6.0 10 14 19
K043	2,6-Dichlorophenol waste from the production of 2,4-D.	2,4-Dichlorophenol 2,6-Dichlorophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 2,3,4,6-Tetrachlorophenol Pentachlorophenol Tetrachloroethylene HxCDDs (All Hexachlorodibenzo-p-dioxins) HxCDFs (All Hexachlorodibenzofurans) PeCDDs (All Pentachlorodibenzo-p-dioxins) PeCDFs (All Pentachlorodibenzofurans) TCDDs (All Tetrachlorodibenzo-p-dioxins)	120–83–2 187–65–0 95–95–4 88–06–2 58–90–2 87–86–5 127–18–4 NA NA NA NA NA	0.044 0.044 0.18 0.035 0.030 0.089 0.056 0.000063 0.000063 0.000063 0.000035 0.000063	14 14 7.4 7.4 7.4 7.4 6.0 0.001 0.001 0.001 0.001 0.001

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
		TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
K044	Wastewater treatment sludges from the manufacturing and processing of explosives.	NA	NA	DEACT	DEACT
K045	Spent carbon from the treatment of wastewater containing explosives.	NA	NA	DEACT	DEACT
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.	Lead	7439–92–1	0.69	0.75 mg/L TCLP
K047	Pink/red water form TNT operations.	NA	NA	DEACT	DEACT
K048	Dissolved air flotation (DAF) float from the petroleum refining industry.	Benzene	71–43–2	0.14	10
		Benzo(a)pyrene	50–32–8	0.061	3.4
		bis(2-Ethylhexyl)phthalate	117–81–7	0.28	28
		Chrysene	218–01–9	0.059	3.4
		Di-n-butyl phthalate	84–74–2	0.057	28
		Ethylbenzene	100–41–4	0.057	10
		Fluorene	86–73–7	0.059	NA
		Naphthalene	91–20–3	0.059	5.6
		Phenanthrene	85–01–8	0.059	5.6
		Phenol	108–95–2	0.039	6.2
		Pyrene	129–00–0	0.067	8.2
		Toluene	108–88–33	0.080	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330–20–7	0.32	30
		Chromium (Total)	7440–47–3	2.77	0.60 mg/L TCLP
		Chanides (Total) [7]	57–12–5	1.2	590
		Lead	7439–92–1	0.69	NA
		Nickel	7440–02–0	NA	11 mg/L TCLP
K049	Slop oil emulsion solids from the petroleum refining industry.	Anthracene	120–12–7	0.059	3.4
		Benzene	71–43–2	0.14	10
		Benzo(a)pyrene	50–32–8	0.061	3.4
		bis(2-Ethylhexyl)phthalate	117–81–7	0.28	28
		Carbon disulfide	75–15–0	3.8	NA
		Chrysene	2218–01–9	0.059	3.4
		2,4-Dimethylphenol	105–67–9	0.036	NA
		Ethylbenzene	100–41–4	0.057	10

		Naphthalene	91–20–3	0.059	5.6
		Phenanthrene	85–01–8	0.059	5.6
		Phenol	108–95–2	0.039	6.2
		Pyrene	129–00–0	0.067	8.2
		Toluene	108–88–3	0.080	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330–20–7	0.32	30
		Cyanides (Total) [7]	57–12–5	1.2	590
		Chromium (Total)	7440–47–3	2.77	0.60 mg/L TCLP
		Lead	7439–92–1	0.69	NA
		Nickel	7440–02–0	NA	11 mg/L TCLP
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry.	Benzo(a)pyrene	50–32–8	0.061	3.4
		Phenol	108–95–2	0.039	6.2
		Cyanides (Total) [7]	57–12–5	1.2	590
		Chromium (Total)	7440–47–3	2.77	0.60 mg/L TCLP
		Lead	7439–92–1	0.69	NA
		Nickel	7440–02–0	NA	11 mg/L TCLP
K051	API separator sludge from the petroleum refining industry.	Acenaphthene	83–32–9	0.059	NA
		Anthracene	120–12–7	0.059	3.4
		Benz(a)anthracene	56–55–3	0.059	3.4
		Benzene	71–43–2	0.14	10
		Benzo(a)pyrene	50–32–8	0.061	3.4
		bis(2-Ethylhexyl)phthalate	117–81–7	0.28	28
		Chrysene	2218–01–9	0.059	3.4
		Di-n-butyl phthalate	105–67–9	0.057	28
		Ethylbenzene	100–41–4	0.057	10
		Fluorene	86–73–7	0.059	NA
		Naphthalene	91–20–3	0.059	5.6
		Phenanthrene	85–01–8	0.059	5.6
		Phenol	108–95–2	0.039	6.2
		Pyrene	129–00–0	0.067	8.2
		Toluene	108–88–3	0.08	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330–20–7	0.32	30
		Cyanides (Total) [7]	57–12–5	1.2	590
		Chromium (Total)	7440–47–3	2.77	0.60 mg/L TCLP
		Lead	7439–92–1	0.69	NA
		Nickel	7440–02–0	NA	11 mg/L TCLP
K052	Tank bottoms (leaded) from the petroleum refining industry.	Benzene	71–43–2	0.14	10
		Benzo(a)pyrene	50–32–8	0.061	3.4
		o-Cresol	95–48–7	0.11	5.6
		m-Cresol (difficult to distinguish from p-cresol)	108–39–4	0.77	5.6
		p-Cresol (difficult to distinguish from m-cresol)	106–44–5	0.77	5.6
		2,4-Dimethylphenol	105–67–9	0.036	NA
		Ethylbenzene	100–41–4	0.057	10
		Naphthalene	91–20–3	0.059	5.6

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
		Phenanthrene	85–01–8	0.059	5.6
		Phenol	108–95–2	0.039	6.2
		Toluene	108–88–3	0.08	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330–20–7	0.32	30
		Chromium (Total)	7440–47–3	2.77	0.60 mg/L TCLP
		Cyanides (Total) [7]	57–12–5	1.2	590
		Lead	7439–92–1	0.69	NA
		Nickel	7440–02–0	NA	11 mg/L TCLP
K060	Ammonia still lime sludge from coking operations.	Benzene	71–43–2	0.14	10
		Benzo(a)pyrene	50–32–8	0.061	3.4
		Naphthalene	91–20–3	0.059	5.6
		Phenol	108–95–2	0.039	6.2
		Cyanides (Total) [7]	57–12–5	1.2	590
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.	Antimony	7440–36–0	NA	1.15 mg/L TCLP
		Arsenic	7440–38–2	NA	5.0 mg/L TCLP
		Barium	7440–39–3	NA	21 mg/L TCLP
		Beryllium	7440–41–7	NA	1.22 mg/L TCLP
		Cadmium	7440–43–9	0.69	0.11 mg/L TCLP
		Chromium (Total)	7440–47–3	2.77	0.60 mg/L TCLP
		Lead	7439–92–1	0.69	0.75 mg/L TCLP
		Mercury	7439–97–6	NA	0.025 mg/L TCLP
		Nickel	7440–02–0	3.98	11 mg/L TCLP
		Selenium	7782–49–2	NA	5.7 mg/L TCLP
		Silver	7440–22–4	NA	0.14 mg/L TCLP
		Thallium	7440–28–0	NA	0.20 mg/L TCLP
		Zinc	7440–66–6	NA	4.3 mg/L TCLP
K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332).	Chromium (Total)	7440–47–3	2.77	0.60 mg/L TCLP
		Lead	7439–92–1	0.69	0.75 mg/L TCLP
		Nickel	7440–02–0	3.98	NA
K069	Emission control dust/sludge from secondary lead smelting.—Calcium Sulfate (Low Lead) Subcategory	Cadmium	7440–43–9	0.69	0.11 mg/L TCLP
		Lead	7439–92–1	0.69	0.75 mg/L TCLP

	Emission control dust/sludge from secondary lead smelting.—Non-Calcium Sulfate (High Lead) Subcategory	NA	NA	NA	RLEAD
K071	K071 (Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used) nonwastewaters that are residues from RMERC.	Mercury	7439–97–6	NA	0.20 mg/L TCLP
	K071 (Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.) nonwastewaters that are not residues from RMERC.	Mercury	7439–97–6	NA	0.025 mg/L TCLP
	All K071 wastewaters.	Mercury	7439–97–6	0.15	NA
K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.	Carbon tetrachloride Chloroform Hexachloroethane Tetrachloroethylene 1,1,1-Trichloroethane	56–23–5 67–66–3 67–72–1 127–18–4 71–55–6	0.057 0.046 0.055 0.056 0.054	6.0 6.0 30 6.0 6.0
K083	Distillation bottoms from aniline production.	Aniline Benzene Cyclohexanone Diphenylamine (difficult to distinguish from diphenylnitrosamine Diphenylnitrosamine (difficult to distinguish from diphenylamine) Nitrobenzene Phenol Nickel	62–53–3 71–43–2 108–94–1 122–39–4 86–30–6 98–95–3 108–95–2 7440–02–0	0.81 0.14 0.36 0.92 0.92 0.068 0.039 3.98	14 10 NA 13 13 14 6.2 11 mg/L TCLP
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	Arsenic	7440–38–2	1.4	5.0 mg/L TCLP
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes.	Benzene Chlorobenzene m-Dichlorobenzene o-Dichlorobenzene p-Dichlorobenzene Hexachlorobenzene Total PCBs (sum of all PCB isomers, or all Aroclors) Pentachlorobenzene 1,2,4,5-Tetrachlorobenzene 1,2,4-Trichlorobenzene	71–43–2 108–90–7 541–73–1 95–50–1 106–46–7 118–74–1 1336–36–3 608–93–5 95–94–3 120–82–1	0.14 0.057 0.036 0.088 0.090 0.055 0.10 0.055 0.055 0.055	10 6.0 6.0 6.0 6.0 10 10 10 14 19
K086	Solvent wastes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.	Acetone Acetophenone bis(2-Ethylhexyl) phthalate n-Butyl alcohol Butylbenzyl phthalate Cyclohexanone	67–64–1 96–86–2 117–81–7 71–36–3 85–68–7 108–94–1	0.28 0.010 0.28 5.6 0.017 0.36	160 9.7 28 2.6 28 NA

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
		o-Dichlorobenzene	95–50–1	0.088	6.0
		Diethyl phthalate	84–66–2	0.20	28
		Dimethyl phthalate	131–11–3	0.047	28
		Di-n-butyl phthalate	84–74–2	0.057	28
		Di-n-octyl phthalate	117–84–0	0.017	28
		Ethyl acetate	141–78–6	0.34	33
		Ethylbenzene	100–41–4	0.057	10
		Methanol	67–56–1	5.6	NA
		Methyl ethyl ketone	78–93–3	0.28	36
		Methyl isobutyl ketone	108–10–1	0.14	33
		Methylene chloride	75–09–2	0.089	30
		Naphthalene	91–20–3	0.059	5.6
		Nitrobenzene	98–95–3	0.068	14
		Toluene	108–88–3	0.080	10
		1,1,1-Trichloroethane	71–55–6	0.054	6.0
		Trichloroethylene	79–01–6	0.054	6.0
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330–20–7	0.32	30
		Chromium (Total)	7440–47–3	2.77	0.60 mg/L TCLP
		Cyanides (Total) [7]	57–12–5	1.2	590
		Lead	7439–92–1	0.69	0.75 mg/L TCLP
K087	Decanter tank tar sludge from coking operations.	Acenaphthylene	208–96–8	0.059	3.4
		Benzene	71–43–2	0.14	10
		Chrysene	218–01–9	0.059	3.4
		Fluoranthene	206–44–0	0.068	3.4
		Indeno(1,2,3-cd)pyrene	193–39–5	0.0055	3.4
		Naphthalene	91–20–3	0.059	5.6
		Phenanthrene	85–01–8	0.059	5.6
		Toluene	108–88–3	0.080	10
		Xylenes-mixed isomers (sum of o, m-, and p-xylene concentrations)	1330–20–7	0.32	30
		Lead	7439–92–1	0.69	0.75 mg/L TCLP
K088	Spent potliners from primary aluminum reduction.	Acenaphthene	83–32–9	0.059	3.4
		Anthracene	120–12–7	0.059	3.4
		Bemz(a)anthracene	56–55–3	0.059	3.4
		Benzo(a)pyrene	50–32–8	0.061	3.4
		Benzo(b)fluoranthene	205–99–2	0.11	6.8

		Benzo(k)fluoranthene	207–08–9	0.11	6.8
		Benzo(g,h,i)perylene	191–24–2	0.0055	1.8
		Chrysene	218–01–9	0.059	3.4
		Dibenz(a,h)anthracene	53–70–3	0.055	8.2
		Fluoranthene	206–44–0	0.068	3.4
		Indeno(1,2,3,-c,d)pyrene	193–39–5	0.0055	3.4
		Phenanthrene	85–01–8	0.059	5.6
		Pyrene	129–00–0	0.067	8.2
		Antimony	7440–36–0	1.9	1.15 mg/L TCLP
		Arsenic	7440–38–2	1.4	26.1
		Barium	7440–39–3	1.2	21 mg/L TCLP
		Beryllium	7440–41–7	0.82	1.22 mg/L TCLP
		Cadmium	7440–43–9	0.69	0.11 mg/L TCLP
		Chromium (Total)	7440–47–3	2.77	0.60 mg/L TCLP
		Lead	7439–92–1	0.69	0.75 mg/L TCLP
		Mercury	7439–97–6	0.15	0.025 mg/L TCLP
		Nickel	7440–02–0	3.98	11 mg/L TCLP
		Selenium	7782–49–2	0.82	5.7 mg/L TCLP
		Silver	7440–22–4	0.43	0.14 mg/L TCLP
		Cyanide (Total) [7]	57–12–5	1.2	590
		Cyanide (Amenable) [7]	57–12–5	0.86	30
		Fluoride	16984–48–8	35	NA
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100–21–0	0.055	28
		Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85–44–9	0.055	28
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene.	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100–21–0	0.055	28
		Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85–44–9	0.055	28
K095	Distillation bottoms from the production of 1,1,1-trichloroethane.	Hexachloroethane	67–72–1	0.055	30
		Pentachloroethane	76–01–7	0.055	6.0
		1,1,1,2-Tetrachloroethane	630–20–6	0.057	6.0
		1,1,2,2-Tetrachloroethane	79–34–6	0.057	6.0
		Tetrachloroethylene	127–18–4	0.056	6.0
		1,1,2-Trichloroethane	79–00–5	0.054	6.0
		Trichloroethylene	79–01–1	0.054	6.0
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.	m-Dichlorobenzene	541–73–1	0.036	6.0
		Pentachloroethane	76–01–1	0.055	6.0
		1,1,1,2-Tetrachloroethane	630–20–6	0.057	6.0
		1,1,2,2-Tetrachloroethane	79–34–6	0.057	6.0
		Tetrachloroethylene	127–18–4	0.056	6.0
		1,2,4-Trichlorobenzene	120–82–1	0.055	19
		1,1,2-Trichloroethane	79–00–5	0.054	6.0
		Trichloroethylene	79–01–6	0.054	6.0

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
K097	Vacuum stripper discharge from the chlordane clorinator in the production of chlordane.	Chlordane (alpha and gamma isomers)	57–74–9	0.0033	0.26
		Heptachlor	76–44–8	0.0012	0.066
		Heptachlor epoxide	1024–57–3	0.016	0.066
		Hexachlorocyclopentadiene	77–47–4	0.057	2.4
K098	Untreated process wastewater from the production of toxaphene.	Toxaphene	8001–35–2	0.0095	2.6
K099	Untreated wastewater from the production of 2,4-D.	2,4-Dichlorophenoxyacetic acid	94–75–7	0.72	10
		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
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.	Cadmium	7440–43–9	0.69	0.11 mg/L TCLP
		Chromium (Total)	7440–47–3	2.77	0.60 mg/L TCLP
		Lead	7439–92–1	0.69	0.75 mg/L TCLP
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	o-Nitroaniline	88–74–4	0.27	14
		Arsenic	7440–38–2	1.4	5.0 mg/L TCLP
		Cadmium	7440–43–9	0.69	NA
		Lead	7439–92–1	0.69	NA
		Mercury	7439–97–6	0.15	NA
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	o-Nitrophenol	88–75–5	0.028	13
		Arsenic	7440–38–2	1.4	5.0 mg/L TCLP
		Cadmium	7440–43–9	0.69	NA
		Lead	7439–92–1	0.69	NA
		Mercury	7439–97–6	0.15	NA
K103	Process residues from aniline extraction from the production of aniline.	Aniline	62–53–3	0.81	14
		Benzene	71–43–2	0.14	10

		2,4-Dinitrophenol Nitrobenzene Phenol	51–28–5 98–95–3 108–95–2	0.12 0.068 0.039	160 14 6.2
K104	Combined wastewater streams generated from nitrobenzene/aniline production.	Aniline Benzene 2,4-Dinitrophenol Nitrobenzene Phenol Cyanides (Total) [7]	62–53–3 71–43–2 51–28–5 98–95–3 108–95–2 57–12–5	0.81 0.14 0.12 0.068 0.039 1.2	14 10 160 14 6.2 590
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.	Benzene Chlorobenzene 2-Chlorophenol o-Dichlorobenzene p-Dichlorobenzene Phenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol	71–43–2 108–90–7 95–57–8 95–50–1 106–46–7 108–95–2 95–95–4 88–06–2	0.14 0.057 0.044 0.088 0.090 0.039 0.18 0.035	10 6.0 5.7 6.0 6.0 6.2 7.4 7.4
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.	Mercury	7439–97–6	NA	RMERC
	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.	Mercury	7439–97–6	NA	0.20 mg/L TCLP
	Other K106 nonwastewaters that contain less than 260 mg/kg total mercury and are not residues from RMERC.	Mercury	7439–97–6	NA	0.025 mg/L TCLP
	All K106 wastewaters.	Mercury	7439–97–6	0.15	NA
K107	Column bottoms from production separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
K108	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
K109	Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
K110	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
K111	Product washwaters from the production of dinitrotoluene via nitration of toluene.	2,4-Dinitrotoluene 2,6-Dinitrotoluene	121–1–2 606–20–2	0.32 0.55	140 28
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.	NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	NA	NA	CARBN; or CMBST	CMBST
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotolune.	NA	NA	CARBN; or CMBST	CMBST
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	Nickel NA	7440–02–2 NA	3.98 CARBN; or CMBST	11 mg/L TCLP CMBST
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.	NA	NA	CARBN; or CMBST	CMBST
K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.	Methyl bromide (Bromomethane) Chloroform Ethylene dibromide (1,2-Dibromoethane)	74–83–9 67–66–3 106–93–4	0.11 0.046 0.028	15 6.0 15
K118	Spent absorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	Methyl bromide (Bromomethane) Chloroform Ethylene dibromide (1,2,-Dibromoethane)	74–83–9 67–66–3 106–93–4	0.11 0.046 0.028	15 6.0 15

K123	Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salts.	NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
K124	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts.	NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
K125	Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts.	NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
K126	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts.	NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
K131	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide.	Methyl bromide (Bromomethane)	74–83–9	0.11	15
K132	Spent absorbent and wastewater separator solids from the production of methyl bromide.	Methyl bromide (Bromomethane)	74–83–9	0.11	15
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	Methyl bromide (Bromomethane) Chloroform Ethylene dibromide (1,2-Dibromoethane)	74–83–9 67–66–3 106–93–4	0.11 0.46 0.028	15 6.0 15
K141	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 tar sludge from coking operations).	Benzene Benz(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene) Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene) Chrysene Dibenz(a,h)anthracene Indeno(1,2,3-cd)pyrene	71–43–2 56–55–3 50–2–8 205–99–2 207–08–9 218–01–9 53–70–3 193–39–5	0.14 0.059 0.061 0.11 0.11 0.059 0.055 0.0055	10 3.4 3.4 6.8 6.8 3.4 8.2 3.4
K142	Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal.	Benzene Benz(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene) Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	71–43–2 56–55–3 50–32–8 205–99–2 207–08–9	0.14 0.059 0.061 0.11 0.11	10 3.4 3.4 6.8 6.8

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
		Chrysene	218–01–9	0.059	3.4
		Dibenz(a,h)anthracene	53–70–3	0.055	8.2
		Indeno(1,2,3-cd)pyrene	193–39–5	0.0055	3.4
K143	Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal.	Benzene	71–43–2	0.14	10
		Benz(a)anthracene	56–55–3	0.059	3.4
		Benzo(a)pyrene	50–32–8	0.061	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205–99–2	0.11	6.8
		Benzo(k)flouranthene (difficult to distinguish from benzo(b)fluoranthene	207–08–9	0.11	6.8
		Chrysene	218–01–9	0.059	3.4
K144	Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal.	Benzene	71–43–2	0.14	10
		Benz(a)pyrene	56–55–3	0.059	3.4
		Benzo(a)anthracene	50–32–8	0.061	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205–99–2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207–08–9	0.11	6.8
		Chrysene	218–01–9	0.059	3.4
		Dibenz(a,h)anthracene	53–70–3	0.055	8.2
K145	Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal.	Benzene	71–43–2	0.14	10
		Benz(a)anthracene	56–55–3	0.059	3.4
		Benzo(a)pyrene	50–32–8	0.061	3.4
		Chrysene	218–01–9	0.059	3.4
		Dibenz(a,h)anthracene	53–70–3	0.055	8.2
		Naphthalene	91–20–3	0.059	5.6
K147	Tar storage tank residues from coal tar refining.	Benzene	71–43–2	0.14	10
		Benz(a)anthracene	56–55–3	0.059	3.4
		Benzo(a)pyrene	50–32–8	0.061	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205–99–2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207–08–9	0.11	6.8
		Chrysene	218–01–9	0.059	3.4
		Dibenz(a,h)anthracene	53–70–3	0.055	8.2

		Indeno(1,2,3-cd)pyrene	193–39–5	0.0055	3.4
K148	Residues from coal tar distillation, including, but not limited to, still bottoms.	Benz(a)anthracene	56–55–3	0.059	3.4
		Benzo(a)pyrene	50–32–8	0.061	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205–99–2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207–08–9	0.11	6.8
		Chrysene	218–01–9	0.059	3.4
		Dibenz(a,h)anthracene	53–70–3	0.055	8.2
		Indeno(1,2,3-cd)pyrene	193–39–5	0.0055	3.4
K149	Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. (This waste does not include still bottoms from the distillations of benzyl chloride.)	Chlorobenzene	108–90–7	0.057	6.0
		Chloroform	67–66–3	0.046	6.0
		Chloromethane	74–87–3	0.19	30
		p-Dichlorobenzene	106–46–7	0.090	6.0
		Hexachlorobenzene	118–74–1	0.055	10
		Pentachlorobenzene	608–93–5	0.055	10
		1,2,4,5-Tetrachlorobenzene	95–94–3	0.055	14
		Toluene	108–88–3	0.080	10
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.	Carbon tetrachloride	56–23–5	0.057	6.0
		Chloroform	67–66–3	0.046	6.0
		Chloromethane	74–87–3	0.019	30
		p-Dichlorobenzene	106–46–7	0.090	6.0
		Hexachlorobenzene	118–74–1	0.055	10
		Pentachlorobenzene	608–93–5	0.055	10
		1,2,4,5-Tetrachlorobenzene	95–94–3	0.055	14
		1,1,2,2-Tetrachloroethane	79–34–5	0.057	6.0
		Tetrachloroethylene	127–18–4	0.056	6.0
		1,2,4-Trichlorobenzene	120–82–1	0.055	19
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.	Benzene	71–43–2	0.14	10
		Carbon tetrachloride	56–23–5	0.057	6.0
		Chloroform	67–66–3	0.046	6.0
		Hexachlorobenzene	118–74–1	0.055	10
		Pentachlorobenzene	608–93–5	0.055	10
		1,2,4,5-Tetrachlorobenzene	95–94–3	0.055	14
		Tetrachloroethylene	127–18–4	0.056	6.0
		Toluene	108–88–3	0.080	10
K156	Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes.	Acetonitrile	75–05–8	5.6	1.8
		Acetophenone	96–86–2	0.010	9.7
		Aniline	62–53–3	0.81	14
		Benomyl	17804–35–2	0.056	1.4
		Benzene	71–43–2	0.14	10
		Carbaryl	63–25–2	0.006	0.14
		Carbenzadim	10605–21–7	0.056	1.4
		Carbofuran	1563–66–2	0.006	0.14
		Carbosulfan	55285–14–8	0.028	1.4

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
		Chlorobenzene	108–90–7	0.057	6.0
		Chloroform	67–66–3	0.046	6.0
		o-Dichlorobenzene	95–50–1	0.088	6.0
		Methomyl	16752–77–5	0.028	0.14
		Methylene chloride	75–09–2	0.089	30
		Methyl ethyl ketone	78–93–3	0.28	36
		Naphthalene	91–20–3	0.059	5.6
		Phenol	108–95–2	0.039	6.2
		Pyridine	110–86–1	0.014	16
		Toluene	108–88–3	0.080	10
		Triethylamine	101–44–8	0.081	1.5
K157	Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes.	Carbon tetrachloride	56–23–5	0.057	6.0
		Chloroform	67–66–3	0.046	6.0
		Chloromethane	74–87–3	0.19	30
		Methomyl	16752–77–5	0.028	0.14
		Methylene chloride	75–09–2	0.089	30
		Methyl ethyl ketone	78–93–3	0.28	36
		Pyridine	110–86–1	0.014	16
		Triethylamine	121–44–8	0.081	1.5
K158	Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes.	Benomyl	17804–35–2	0.056	1.4
		Benzene	71–43–2	0.14	10
		Carbenzadim	10605–21–7	0.056	1.4
		Carbofuran	1563–66–2	0.006	0.14
		Carbosulfan	55285–14–8	0.028	1.4
		Chloroform	67–66–3	0.046	6.0
		Methylene chloride	75–09–2	0.089	30
		Phenol	108–95–2	0.039	6.2
K159	Organics from the treatment of thiocarbamate wastes.	Benzene	71–43–2	0.14	10
		Butylate	2008–41–5	0.042	1.4
		EPTC (Eptam)	759–94–4	0.042	1.4
		Molinate	2212–67–1	0.042	1.4
		Pebulate	1114–71–2	0.042	1.4
		Vernolate	1929–77–7	0.042	1.4

K161	Purification solids (including filtration, evaporation, and centrifugation solids), baghouse dust and floor sweepings from the production of dithiocarbamate acids and their salts.	Antimony	7440–36–0	1.9	1.15 mg/L TCLP
		Arsenic	7440–38–2	1.4	5.0 mg/L TCLP
		Carbon disulfide	75–15–0	3.8	4.8 mg/L TCLP
		Dithiocarbamates (total)	NA	0.028	28
		Lead	7439–92–1	0.69	0.75 mg/L TCLP
		Nickel	7440–02–0	3.98	11.0 mg/L TCLP
		Selenium	7782–49–2	0.82	5.7 mg/L TCLP
K169	Crude oil tank sediment from petroleum refining operations.	Benz(a)anthracene	56–55–3	0.059	3.4
		Benzene	71–43–2	0.14	10
		Benzo(g,h,i)perylene	191–24–2	0.0055	1.8
		Chrysene	218–01–9	0.059	3.4
		Ethyl benzene	100–41–4	0.057	10
		Fluorene	86–73–7	0.059	3.4
		Naphthalene	91–20–3	0.059	5.6
		Phenanthrene	81–05–8	0.059	5.6
		Pyrene	129–00–0	0.067	8.2
		Toluene (Methyl Benzene)	108–88–3	0.080	10
		Xylene(s) (Total)	1330–20–7	0.32	30
K170	Clarified slurry oil sediment from petroleum refining operations.	Benz(a)anthracene	56–55–3	0.059	3.4
		Benzene	71–43–2	0.14	10
		Benzo(g,h,i)perylene	191–24–2	0.0055	1.8
		Chrysene	218–01–9	0.059	3.4
		Dibenz(a,h)anthracene	53–70–3	0.055	8.2
		Ethyl benzene	100–41–4	0.057	10
		Fluorene	86–73–7	0.059	3.4
		Indeno(1,3,4-cd)pyrene	193–39–5	0.0055	3.4
		Naphthalene	91–20–3	0.059	5.6
		Phenanthrene	81–05–8	0.059	5.6
		Pyrene	129–00–0	0.067	8.2
		Toluene (Methyl Benzene)	108–88–3	0.080	10
		Xylene(s) (Total)	1330–20–7	0.32	30
K171	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).	Benz(a)anthracene	56–55–3	0.059	3.4
		Benzene	71–43–2	0.14	10
		Chrysene	218–01–9	0.059	3.4
		Ethyl benzene	100–41–4	0.057	10
		Naphthalene	91–20–3	0.059	5.6
		Phenanthrene	81–05–8	0.059	5.6
		Pyrene	129–00–0	0.67	8.2
		Toluene (Methyl Benzene)	108–88–3	0.080	10
		Xylene(s) (Total)	1330–20–7	0.32	30
		Arsenic	7740–38–2	1.4	5 mg/L TCLP
		Nickel	7440–02–0	3.98	11.0 mg/L TCLP
		Vanadium	7440–62–2	4.3	1.6 mg/L TCLP
		Reactive sulfides	NA	DEACT	DEACT

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
K172	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.).	Benzene	71–43–2	0.14	10
		Ethyl benzene	100–41–4	0.57	10
		Toluene (Methyl Benzene)	108–88–3	0.080	10
		Xylene(s) (Total)	1330–20–7	0.32	30
		Antimony	7740–36–0	1.9	1.15 mg/L TCLP
		Arsenic	7740–38–2	1.4	5 mg/L TCLP
		Nickel	7440–02–0	3.98	11.0 mg/L TCLP
		Vanadium	7440–62–2	4.3	1.6 mg/L TCLP
		Reactive sulfides	NA	DEACT	DEACT
K174	Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer.	1,2,3,4,6,7,8-Heptachlorodibenzo-*p*-dioxin (1,2,3,4,6,7,8-HpCDD)	35822–46–9	0.000035 or CMBST [11]	0.0025 or CMBST [11]
		1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562–39–4	0.000035 or CMBST [11]	0.0025 or CMBST [11]
		1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673–89–7	0.000035 or CMBST [11]	0.0025 or CMBST [11]
		HxCDDs (All Hexachlorodibenzo-*p*-dioxins)	34465–46–8	0.000063 or CMBST [11]	0.001 or CMBST [11]
		HxCDFs (All Hexachlorodibenzofurans)	55684–94–1	0.000063 or CMBST [11]	0.001 or CMBST [11]
		1,2,3,4,6,7,8,9-Octachlorodibenzo-*p*-dioxin (OCDD)	3268–87–9	0.000063 or CMBST [11]	0.005 or CMBST [11]
		1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001–02–0	0.000063 or CMBST [11]	0.005 or CMBST [11]
		PeCDDs (All Pentachlorodibenzo-*p*-dioxins	36088–22–9	0.000063 or CMBST [11]	0.001 or CMBST [11]
		PeCDFs (All Pentachlorodibenzofurans)	30402–15–4	0.000035 or CMBST [11]	0.001 or CMBST [11]
		TCDDs (All tetachlorodibenzo-*p*-dioxins)	41903–57–5	0.000063 or CMBST [11]	0.001 or CMBST [11]
		TCDFs (All tetrachlorodibenzofurans)	55722–27–5	0.000063 or CMBST [11]	0.001 or CMBST [11]
		Arsenic	7440–36–0	1.4	5.0 mg/L TCLP
K175	Wastewater treatment sludge from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process	Mercury [12]	7438–97–6	NA	0.025 mg/L TCLP
		pH [12]		NA	pH≤6.0
	All K175 wastewaters	Mercury	7438–97–6	0.15	NA

K176	Baghouse filters from the production of antimony oxide, including filters from the production of intermediates (e.g., antimony metal or crude antimony oxide)	Antimony	7440–36–0	1.9	1.15 mg/L TCLP
		Arsenic	7440–38–2	1.4	5.0 mg/L TCLP
		Cadmium	7440–43–9	0.69	0.11 mg/L TCLP
		Lead	7439–92–1	0.69	0.75 mg/L TCLP
		Mercury	7439–97–6	0.15	0.025 mg/L TCLP
K177	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)	Antimony	7440–36–0	1.9	1.15 mg/L TCLP
		Arsenic	7440–38–2	1.4	5.0 mg/L TCLP
		Lead	7439–92–1	0.69	0.75 mg/L TCLP
K178	Residues from manufacturing and manufacturing-site storage of ferric chloride from acids formed during the production of titanium dioxide using the chloride-ilmenite process.	1,2,3,4,6,7,8- Heptachlorodibenzo-*p*-dioxin (1,2,3,4,6,7,8-HpCDD)	35822–39–4	0.000035 or CMBST [11]	0.0025 or CMBST [11]
		1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562–39–4	0.000035 or CMBST [11]	0.0025 or CMBST [11]
		1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673–89–7	0.000035 or CMBST [11]	0.0025 or CMBST [11]
		HxCDDs (All Hexachlorodibenzo-*p*-dioxins)	34465–46–8	0.000063 or CMBST [11]	0.001 or CMBST [11]
		HxCDFs (All Hexachlorodibenzo-furans)	55684–94–1	0.000063 or CMBST [11]	0.001 or CMBST [11]
		1,2,3,4,6,7,8,9- Octachlorodibenzo-*p*-dioxin (OCDD)	3268–87–9	0.000063 or CMBST [11]	0.005 or CMBST [11]
		1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001–02–0	0.000063 or CMBST [11]	0.005 or CMBST [11]
		PeCDDs (All Pentachlorodibenzo-*p*-dioxins)	36088–22–9	0.000063 or CMBST [11]	0.001 or CMBST [11]
		PeCDFs (All Pentachlorodibenzo-furans)	30402–15–4	0.000035 or CMBST [11]	0.001 or CMBST [11]
		TCDDs (All tetrachlorodibenzo-*p*-dioxins)	41903–57–5	0.000063 or CMBST [11]	0.001 or CMBST [11]
		TCDFs (All tetrachlorodibenzo-furans)	55722–27–5	0.000063 or CMBST [11]	0.001 or CMBST [11]
		Thallium	7440–28–0	1.4	0.20 mg/L TCLP
P001	Warfarin, & salts, when present at concentrations greater than 0.3%	Warfarin	81–81–2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
P002	1-Acetyl-2-thiourea	1-Acetyl-2-thiourea	591–08–2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P003	Acrolein	Acrolein	107–02–8	0.29	CMBST
P004	Aldrin	Aldrin	309–00–2	0.021	0.066
P005	Allyl alcohol	Allyl alcohol	107–18–6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P006	Aluminum phosphide	Aluminum phosphide	20859–73–8	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
P007	5-Aminomethyl 3-isoxazolol	5-Aminomethyl 3-isoxazolol	2763–96–4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P008	4-Aminopyridine	4-Aminopyridine	504–24–5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P009	Ammonium picrate	Ammonium picrate	131–74–8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P010	Arsenic acid	Arsenic	7440–38–2	1.4	5.0 mg/L TCLP
P011	Arsenic pentoxide	Arsenic	7440–38–2	1.4	5.0 mg/L TCLP
P012	Arsenic trioxide	Arsenic	7440–38–2	1.4	5.0 mg/L TCLP
P013	Barium cyanide	Barium Cyanides (Total) [7]	7440–39–3 57–12–5	NA 1.2	21 mg/L TCLP 590

		Cyanides (Amenable)[7]	57–12–5	0.86	30
P014	Thiophenol (Benzene thiol)	Thiophenol (Benzene thiol)	108–98–5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P015	Beryllium dust	Beryllium	7440–41–7	RMETL; or RTHRM	RMETL; or RTHRM
P016	Dichloromethyl ether (Bis(chloromethyl)ether)	Dichloromethyl ether	542–88–1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P017	Bromoacetone	Bromoacetone	598–31–2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P018	Brucine	Brucine	357–57–3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P020	2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	88–85–7	0.066	2.5
P021	Calcium cyanide	Cyanides (Total)[7] Cyanides (Amenable)[7]	57–12–5 57–12–5	1.2 0.86	590 30
P022	Carbon disulfide	Carbon disulfide Carbon disulfide; alternate[6] standard for nonwastewaters only	75–15–0 75–15–0	3.8 NA	CMBST 4.8 mg/L TCLP
P023	Chloroacetaldehyde	Chloroacetaldehyde	107–20–0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P024	p-Chloroaniline	p-Chloroaniline	106–47–8	0.46	16
P026	1-(o-Chlorophenyl)thiourea	1-(o-Chlorophenyl)thiourea	5344–82–1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
P027	3-Chloropropionitrile	3-Chloropropionitrile	542–76–7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P028	Benzyl chloride	Benzyl chloride	100–44–7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P029	Copper cyanide	Cyanides (Total) [7] Cyanides (Amenable) [7]	57–12–5 57–12–5	1.2 0.86	590 30
P030	Cyanides (soluble salts and complexes)	Cyanides (Total) [7] Cyanides (Amenable) [7]	57–12–5 57–12–5	1.2 0.86	590 30
P031	Cyanogen	Cyanogen	460–19–5	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
P033	Cyanogen chloride	Cyanogen chloride	506–77–4	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
P034	2-Cyclohexyl-4,6-dinitrophenol	2-Cyclohexyl-4,6-dinitrophenol	131–89–5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P036	Dichlorophenylarsine	Arsenic	7440–38–2	1.4	5.0 mg/L TCLP
P037	Dieldrin	Dieldrin	60–57–1	0.017	0.13
P038	Diethylarsine	Arsenic	7440–38–2	1.4	5.0 mg/L TCLP
P039	Disulfoton	Disulfoton	298–04–4	0.017	6.2
P040	0,0-Diethyl O-pyrazinyl phosphorothioate	0,0-Diethyl O-pyrazinyl phosphorothioate	297–97–2	CARBN; or CMBST	CMBST

P041	Diethyl-p-nitrophenyl phosphate	Diethyl-p-nitrophenyl phosphate	311–45–5	CARBN; or CMBST	CMBST
P042	Epinephrine	Epinephrine	51–43–4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P043	Diisopropylfluorophosphate (DFP)	Diisopropylfluorophosphate (DFP)	55–91–4	CARBN; or CMBST	CMBST
P044	Dimethoate	Dimethoate	60–51–5	CARBN; or CMBST	CMBST
P045	Thiofanox	Thiofanox	39196–18–4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P046	alpha, alpha-Dimethylphenethylamine	alpha, alpha-Dimethylphenethylamine	122–09–8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P047	4,6-Dinitro-o-cresol	4,6-Dinitro-o-cresol	543–52–1	0.28	160
	4,6-Dinitro-o-cresol salts	NA	NA	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P048	2,4-Dinitrophenol	2,4-Dinitrophenol	51–28–5	0.12	160
P049	Dithiobiuret	Dithiobiuret	541–53–7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P050	Endosulfan	Endosulfan I Endosulfan II Endosulfan sulfate	939–98–8 33213–6–5 1031–07–8	0.023 0.029 0.029	0.066 0.13 0.13
P051	Endrin	Endrin Endrin aldehyde	72–20–8 7421–93–4	0.0028 0.025	0.13 0.13
P054	Aziridine	Aziridine	151–56–4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
P056	Fluorine	Fluoride (measured in wastewaters only)	16984–48–8	35	ADGAS fb NEUTR
P057	Fluoroacetamide	Fluoroacetamide	640–19–7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P058	Fluoroacetic acid, sodium salt	Fluoroacetic acid, sodium salt	62–74–8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P059	Heptachlor	Heptachlor Heptachlor epoxide	76–44–8 1024–57–3	0.0012 0.016	0.066 0.066
P060	Isodrin	Isodrin	465–73–6	0.021	0.066
P062	Hexaethyl tetraphosphate	Hexaethyl tetraphosphate	757–58–4	CARBN; or CMBST	CMBST
P063	Hydrogen cyanide	Cyanides (Total) [7] Cyanides (Amenable) [7]	57–12–5 57–12–5	1.2 0.86	590 30
P064	Isocyanic acid, ethyl ester	Isocyanic acid, ethyl ester	624–83–9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P065	Mercury fulminate nonwastewaters, regardless of their total mercury content, that are not incinerator residues or are not residues from RMERC.	Mercury	7439–97–6	NA	IMERC
	Mercury fulminate nonwastewaters that are either incinerator residues or are residues from RMERC; and contain greater than or equal to 260 mg/kg total mercury.	Mercury	7439–97–6	NA	RMERC
	Mercury fulminate nonwastewaters that are residues from RMERC and contain less than 260 mg/kg total mercury.	Mercury	7439–97–6	NA	0.20 mg/L TCLP

	Mercury fulminate nonwastewaters that are incinerator residues and contain less than 260 mg/kg total mercury.	Mercury	7439–97–6	NA	0.025 mg/L TCLP
	All mercury fulminate wastewaters.	Mercury	7439–97–6	0.15	NA
P066	Methomyl	Methomyl	16752–77–5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P067	2-Methyl-aziridine	2-Methyl-aziridine	75–55–8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P068	Methyl hydrazine	Methyl hydrazine	60–34–4	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P069	2-Methyllactonitrile	2-Methyllactonitrile	75–86–5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P070	Aldicarb	Aldicarb	116–06–3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P071	Methyl parathion	Methyl parathion	298–00–0	0.014	4.6
P072	1-Naphthyl-2-thiourea	1-Naphthyl-2-thiourea	86–88–4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P073	Nickel carbonyl	Nickel	7440–02–0	3.98	11 mg/L TCLP
P074	Nickel cyanide	Cyanides (Total) [7] Cyanides (Amenable) [7] Nickel	57–12–5 57–12–5 7440–02–0	1.2 0.86 3.98	590 30 11 mg/L TCLP
P075	Nicotine and salts	Nicotine and salts	54–11–5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P076	Nitric oxide	Nitric oxide	10102–43–9	ADGAS	ADGAS
P077	p-Nitroaniline	p-Nitroaniline	100–01–6	0.028	28

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
P078	Nitrogen dioxide	Nitrogen dioxide	10102–44–0	ADGAS	ADGAS
P081	Nitroglycerin	Nitroglycerin	55–63–0	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P082	N-Nitrosodimethylamine	N-Nitrosodimethylamine	62–75–9	0.40	2.3
P084	N-Nitrosomethylvinylamine	N-Nitrosomethylvinylamine	4549–40–0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P085	Octamethylpyrophosphoramide	Octamethylpyrophosphoramide	152–16–9	CARBN; or CMBST	CMBST
P087	Osmium tetroxide	Osmium tetroxide	20816–12–0	RMETL; or RTHRM	RMETL; or RTHRM
P088	Endothall	Endothall	145–73–3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P089	Parathion	Parathion	56–38–2	0.014	4.6
P092	Phenyl mercuric acetate nonwastewaters, regardless of their total mercury content, that are not incinerator residues or are not residues from RMERC.	Mercury	7439–97–6	NA	IMERC; or RMERC
	Phenyl mercuric acetate nonwastewaters that are either incinerator residues or are residues from RMERC; and still contain greater than or equal to 260 mg/kg total mercury.	Mercury	7439–97–6	NA	RMERC
	Phenyl mercuric acetate nonwastewaters that are residues from RMERC and contain less than 260 mg/kg total mercury.	Mercury	7439–97–6	NA	0.20 mg/L TCLP
	Phenyl mercuric acetate nonwastewaters that are incinerator residues and contain less than 260 mg/kg total mercury.	Mercury	7439–97–6	NA	0.025 mg/L TCLP

	All phenyl mercuric acetate wastewaters.	Mercury	7439–97–6	0.15	NA
P093	Phenylthiourea	Phenylthiourea	103–85–5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P094	Phorate	Phorate	298–02–2	0.021	4.6
P095	Phosgene	Phosgene	75–44–5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P096	Phosphine	Phosphine	7803–51–2	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
P097	Famphur	Famphur	52–85–7	0.017	15
P098	Potassium cyanide.	Cyanides (Total) [7] Cyanides (Amenable) [7]	57–12–5 57–12–5	1.2 0.86	590 30
P099	Potassium silver cyanide	Cyanides (Total) [7] Cyanides (Amenable) [7] Silver	57–12–5 57–12–5 7440–22–4	1.2 0.86 0.43	590 30 0.14 mg/L TCLP
P101	Ethyl cyanide (Propanenitrile)	Ethyl cyanide (Propanenitrile)	107–12–0	0.24	360
P102	Propargyl alcohol	Propargyl alcohol	107–19–7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P103	Selenourea	Selenium	7782–49–2	0.82	5.7 mg/L TCLP
P104	Silver cyanide	Cyanides (Total) [7] Cyanides (Amenable) [7] Silver	57–12–5 57–12–5 7440–22–4	1.2 0.86 0.43	590 30 0.14 mg/L TCLP
P105	Sodium azide	Sodium azide	26628–22–8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P106	Sodium cyanide	Cyanides (Total) [7] Cyanides (Amenable) [7]	57–12–5 57–12–5	1.2 0.86	590 30
P108	Strychnine and salts	Strychnine and salts	57–24–9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
P109	Tetraethyldithiopyrophosphate	Tetraethyldithiopyrophosphate	3689–24–5	CARBN; or CMBST	CMBST
P110	Tetraethyl lead	Lead	7439–92–1	0.69	0.75 mg/L TCLP
P111	Tetraethylpyrophosphate	Tetraethylpyrophosphate	107–49–3	CARBN; or CMBST	CMBST
P112	Tetranitromethane	Tetranitromethane	509–14–8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P113	Thallic oxide	Thallium (measured in wastewaters only)	7440–28–0	1.4	RTHRM; or STABL
P114	Thallium selenite	Selenium	7782–49–2	0.82	5.7 mg/L TCLP
P115	Thallium (I) sulfate	Thallium (measured in wastewaters only)	7440–28–0	1.4	RTHRM; or STABL
P116	Thiosemicarbazide	Thiosemicarbazide	79–19–6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P118	Trichloromethanethiol	Trichloromethanethiol	75–70–7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P119	Ammonium vanadate	Vanadium (measured in wastewaters only)	7440–62–2	4.3	STABL
P120	Vanadium pentoxide	Vanadium (measured in wastewaters only)	7440–62–2	4.3	STABL
P121	Zinc cyanide	Cyanides (Total) [7] Cyanides (Amenable) [7]	57–12–5 57–12–5	1.2 0.86	590 30

P122	Zinc phosphide Zn_3P_2, when present at concentrations greater than 10%.	Zinc Phosphide	1314–84–7	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
P123	Toxaphene	Toxaphene	8001–35–2	0.0095	2.6
P127	Carbofuran	Carbofuran	1563–66–2	0.006	0.14
P128	Mexacarbate	Mexacarbate	315–18–4	0.056	1.4
P185	Tirpate [10]	Tirpate	26419–73–8	0.056	0.28
P188	Physostigmine salicylate	Physostigmine salicylate	57–64–7	0.056	1.4
P189	Carbosulfan	Carbosulfan	55285–14–8	0.028	1.4
P190	Metolcarb	Metolcarb	1129–41–5	0.056	1.4
P191	Dimetilan [10]	Dimetilan	644–64–4	0.056	1.4
P192	Isolan [10]	Isolan	119–38–0	0.056	1.4
P194	Oxamyl	Oxamyl	23135–22–0	0.056	0.28
P196	Manganese dimethyldithiocarbamate [10]	Dithiocarbamates (total)	NA	0.028	28
P197	Formparanate [10]	Formparante	17702–57–7	0.056	1.4
P198	Formetanate hydrochloride	Formetanate hydrochloride	23422–53–9	0.056	1.4
P199	Methiocarb	Methiocarb	2032–65–7	0.056	1.4
P201	Promecarb	Promecarb	2631–37–0	0.056	1.4
P202	m-Cumenyl methylcarbamate	m-Cumenyl methylcarbamate	64–00–6	0.056	1.4
P203	Aldicarb sulfone	Aldicarb sulfone	1646–88–4	0.056	0.28
P204	Physostigmine	Physostigmine	57–47–6	0.056	1.4
P205	Ziram	Dithiocarbamates (total)	NA	0.028	28
U001	Acetaldehyde	Acetaldehyde	75–07–0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U202	Acetone	Acetone	67–64–1	0.28	160
U003	Acetonitrile	Acetonitrile	75–05–8	5.6	CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
		Acetonitrile; alternate [6] standard for nonwastewaters only	75–05–8	NA	38
U004	Acetophenone	Acetophenone	98–86–2	0.010	9.7
U005	2-Acetylaminofluorene	2-Acetylaminofluorene	53–96–3	0.059	140
U006	Acetyl chloride	Acetyl Chloride	75–36–5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U007	Acrylamide	Acrylamide	79–06–1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U008	Acrylic acid	Acrylic acid	79–10–7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U009	Acrylonitrile	Acrylonitrile	107–13–1	0.24	84
U010	Mitomycin C	Mitomycin C	50–07–7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U011	Amitrole	Amitrole	61–82–5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U012	Aniline	Aniline	62–53–3	0.81	14

U014	Auramine	Auramine	492–80–8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U015	Azaserine	Azaserine	115–02–6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U016	Benz(c)acridine	Benz(c)acridine	225–51–4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U017	Benzal chloride	Benzal chloride	98–87–3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U018	Benz(a)anthracene	Benz(a)anthracene	56–55–3	0.059	3.4
U019	Benzene	Benzene	71–43–2	0.14	10
U020	Benzenesulfonyl chloride	Benzenesulfonyl chloride	98–09–9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U021	Benzidine	Benzidine	92–87–5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U022	Benzo(a)pyrene	Benzo(a)pyrene	50–32–8	0.061	3.4
U023	Benzotrichloride	Benzotrichloride	98–07–7	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOCS; CHRED; or CMBST
U024	bis(2-Chloroethoxy)methane	bis(2)Chloroethoxy)methane	111–91–1	0.036	7.2
U025	bis(2-Chloroethyl)ether	bis(2-Chloroethyl)ether	111–44–4	0.033	6.0
U026	Chlornaphazine	Chlornaphazine	494–03–1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U027	bis(2-Chloroisopropyl)ether	bis(2-Chloroisopropyl)ether	39638–32–9	0.055	7.2

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
U028	bis(2-Ethylhexyl) phthalate	bis(2-Ethylhexyl) phthalate	117–81–7	0.28	28
U029	Methyl bromide (Bromomethane)	Methyl bromide (Bromomethane)	74–83–9	0.11	15
U030	4-Bromophenyl phenyl ether	4-Bromophenyl phenyl ether	101–55–3	0.055	15
U031	n-Butyl alcohol	n-Butyl alcohol	71–36–3	5.6	2.6
U032	Calcium chromate	Chromium (Total)	7440–47–3	2.77	0.60 mg/L TCLP
U033	Carbon oxyfluoride	Carbon oxyfluoride	353–50–4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U034	Trichloroacetaldehyde (Chloral)	Trichloroacetaldehyde (Chloral)	75–87–6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U035	Chlorambucil	Chlorambucil	305–03–3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U036	Chlordane	Chlordane (alpha and gamma isomers)	57–74–9	0.0033	0.26
U037	Chlorobenzene	Chlorobenzene	108–90–7	0.057	60
U038	Chlorobenzilate	Chlorobenzilate	510–15–6	0.10	CMBST
U039	p-Chloro-m-cresol	p-Chloro-m-cresol	59–50–7	0.018	14
U041	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	106–89–8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

U042	2-Chloroethyl vinyl ether	2-Chloroethyl vinyl ether	110–75–8	0.062	CMBST
U043	Vinyl chloride	Vinyl chloride	75–01–4	0.27	6.0
U044	Chloroform	Chloroform	67–66–3	0.046	6.0
U045	Chloromethane (Methyl chloride)	Chloromethane (Methyl chloride)	74–87–3	0.19	30
U046	Chloromethyl methyl ether	Chloromethyl methyl ether	107–30–2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U047	2-Chloronaphthalene	2-Chloronaphthalene	91–58–7	0.055	5.6
U048	2-Chlorophenol	2-Chlorophenol	95–57–8	0.044	5.7
U049	4-Chloro-o-toluidine hydrochloride	4-Chloro-o-toluidine hydrochloride	3165–93–3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U050	Chrysene	Chrysene	218–01–9	0.059	3.4
U051	Creosote	Naphthalene	91–20–3	0.059	5.6
		Pentachlorophenol	87–86–5	0.089	7.4
		Phenanthrene	85–01–8	0.059	5.6
		Pyrene	129–00–0	0.067	8.2
		Toluene	108–88–3	0.080	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330–20–7	0.32	30
		Lead	7439–92–1	0.69	0.75 mg/L TCLP
U052	Cresols (Cresylic acid)	o-Cresol	95–48–7	0.11	5.6
		m-Cresol (difficult to distinguish from p-cresol)	108–39–4	0.77	5.6
		p-Cresol (difficult to distinguish from m-cresol)	106–44–5	0.77	5.6
		Cresol-mixed isomers (Cresylic acid) (sum of o- m-, and p-cresol concentrations)	1319–77–3	0.88	11.2
U053	Crotonaldehyde	Crotonaldehyde	4170–30–3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
U055	Cumene	Cumene	98–82–8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U056	Cyclohexane	Cyclohexane	110–82–7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U057	Cyclohexanone	Cyclohexanone Cyclohexanone; alternate [6] standard for nonwastewaters only	108–94–1 108–94–1	0.36 NA	CMBST 0.75 mg/L TCLP
U058	Cyclophosphamide	Cyclophosphamide	50–18–0	CARBN; or CMBST	CMBST
U059	Daunomycin	Daunomycin	20830–81–3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U060	DDD	o,p′-DDD p,p′-DDD	53–19–0 72–54–8	0.023 0.023	0.087 0.087
U061	DDT	o-p′-DDT p,p′-DDT o,p′-DDD p,p′-DDD o,p′-DDE p,p′-DDE	789–02–6 50–29–3 53–19–0 72–54–8 3424–82–6 72–55–9	0.0039 0.0039 0.023 0.023 0.031 0.031	0.087 0.087 0.087 0.087 0.087 0.087
U062	Diallate	Diallate	2303–16–4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U063	Dibenz(a,h)anthracene	Dibenz(a,h)anthracene	53–70–3	0.055	8.2

U064	Dibenz(a,i)pyrene	Dibenz(a,i)pyrene	189–55–9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U066	1,2-Dibromo-3-chloropropane	1,2-Dibromo-3-chloropropane	96–12–8	0.11	15
U067	Ethylene dibromide (1,2-Dibromoethane)	Ethylene dibromide (1,2-Dibromoethane)	106–93–4	0.028	15
U068	Dibromomethane	Dibromomethane	74–95–3	0.11	15
U069	Di-n-butyl phthalate	Di-n-butyl phthalate	84–74–2	0.057	28
U070	o-Dichlorobenzene	o-Dichlorobenzene	95–50–1	0.088	6.0
U071	m-Dichlorobenzene	m-Dichlorobenzene	541–73–1	0.036	6.0
U072	p-Dichlorobenzene	p-Dichlorobenzene	106–46–7	0.090	6.0
U073	3,3′-Dichlorobenzidine	3,3′-Dichlorobenzidine	91–94–1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U074	1,4-Dichloro-2-butene	cis,1,4-Dichloro-2-butene	1476–11–5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
		trans-1,4-Dichloro-2-butene	764–41–0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U075	Dichlorodifluoromethane	Dichlorodifluoromethane	75–71–8	0.23	7.2
U076	1,1-Dichloroethane	1,1-Dichloroethane	75–34–3	0.059	6.0
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	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

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
U083	1,2-Dichloropropane	1,2-Dichloropropane	78–87–5	0.85	18
U084	1,3-Dichloropropylene	cis-1,3-Dichloropropylene trans-1,3-Dichloropropylene	10061–01–5 10061–02–6	0.036 0.036	18 18
U085	1,2:3,4-Diepoxybutane	1,2,3,4-Diepoxybutane	1464–53–5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U086	N,N′-Diethylhydrazine	N,N′-Diethylhydrazine	1615–80–1	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U087	O,O-Diethyl S-methyldithiophosphate	O,O-Diethyl S-methyldithiophosphate	3288–58–2	CARBN; or CMBST	CMBST
U088	Diethyl phthalate	Diethyl phthalate	84–66–2	0.20	28
U089	Diethyl stilbestrol	Diethyl stilbestrol	56–53–1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U090	Dihydrosafrole	Dihydrosafrole	94–58–6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U091	3,3′-Dimethoxybenzidine	3,3′-Dimethoxybenzidine	119–90–4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U092	Dimethylamine	Dimethylamine	124–40–3	(WETOX or CHOXD) fb CARBN; or CMBST	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) fb CARBN; or CMBST	CMBST
U095	3,3′-Dimethylbenzidine	3,3′-Dimethylbenzidine	119–93–7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U096	alpha, alpha-Dimethyl benzyl hydroperoxide	alpha, alpha-Dimethyl benzyl hydroperoxide	80–15–9	CHOXD; CHRED; CARBN; BIODG; or CMBSt	CHOXD, CHRED; or CMBST
U097	Dimethylcarbamoyl chloride	Dimethylcarbamoyl chloride	79–44–7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U098	1,1-Dimethylhydrazine	1,1-Dimethylhydrazine	57–14–7	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U099	1,2-Dimethylhydrazine	1,2-Dimethylhydrazine	540–73–8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U101	2,4-Dimethylphenol	2,4-Dimethylphenol	105–67–9	0.036	14
U102	Dimethyl phthalate	Dimethyl phthalate	131–11–3	0.047	28
U103	Dimethyl sulfate	Dimethyl sulfate	77–78–1	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U105	2,4-Dinitrotoluene	2,4-Dinitrotoluene	121–14–2	0.32	140
U106	2,6-Dinitrotoluene	2,6-Dinitrotoluene	606–20–2	0.55	28
U107	Di-n-octyl phthalate	Di-n-octyl phthalate	117–84–0	0.017	28
U108	1,4-Dioxane	1,4-Dioxane	123–91–1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
		1,4-Dioxane, alternate [6]	123–91–1	12.0	170

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
U109	1,2-Diphenylhydrazine	1,2-Diphenylhydrazine	122–66–7	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
		1,2-Diphenylhydrazine; alternate [6] standard for wastewaters only	122–66–7	0.087	NA
U110	Dipropylamine	Dipropylamine	142–84–7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U111	Di-n-propylnitrosamine	Di-n-propylnitrosamine	621–64–7	0.40	14
U112	Ethyl acetate	Ethyl acetate	141–78–6	0.34	33
U113	Ethyl acrylate	Ethyl acrylate	140–88–5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U114	Ethylenebisdithiocarbamic acid salts and esters	Ethylenebisdithiocarbamic acid	111–54–6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U115	Ethylene oxide	Ethylene oxide	75–21–8	(WETOX or CHOXD) fb CARBN; or CMBST	CHOXD; or CMBST
		Ethylene oxide; alternate [6] standard for wastewaters only	75–21–8	0.12	NA
U116	Ethylene thiourea	Ethylene thiourea	96–45–7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U117	Ethyl ether	Ethyl ether	60–29–7	0.12	160

U118	Ethyl methacrylate	Ethyl methacrylate	97–63–2	0.14	160
U119	Ethyl methane sulfonate	Ethyl methane sulfonate	62–50–0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U120	Fluoranthene	Fluoranthene	206–44–0	0.068	3.4
U121	Trichlorofluoromethane	Trichlorofluoromethane	75–69–4	0.020	30
U122	Formaldehyde	Formaldehyde	50–00–0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U123	Formic acid	Formic acid	64–18–6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U124	Furan	Furan	110–00–9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U125	Furfural	Furfural	98–01–1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U126	Gylcidyaldehyde	Glycidyaldehyde	765–34–4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U127	Hexachlorobenzene	Hexachlorobenzene	118–74–1	0.055	10
U128	Hexachlorobutadiene	Hexachlorobutadiene	87–68–3	0.055	5.6
U129	Lindane	alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane)	319–84–6 319–85–7 319–86–8 58–89–9	0.00014 0.00014 0.023 0.0017	0.066 0.066 0.066 0.066
U130	Hexachlorocyclopentadiene	Hexachlorocyclopentadiene	77–47–4	0.057	2.4
U131	Hexachloroethane	Hexachloroethane	67–72–1	0.055	30

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
U132	Hexachlorophene	Hexachlorophene	70–30–4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U133	Hydrazine	Hydrazine	302–01–2	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U134	Hydrogen fluoride	Fluoride (measured in wastewaters only)	16984–48–8	35	ADGAS fb NEUTR; or NEUTR
U135	Hydrogen Sulfide	Hydrogen Sulfide	7783–06–4	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
U136	Cacodylic acid	Arsenic	7440–38–2	1.4	5.0 mg/L TCLP
U137	Indeno(1,2,3-c,d)pyrene	Indeno(1,2,3-c,d)pyrene	193–39–5	0.0055	3.4
U138	Iodomethane	Iodomethane	74–88–4	0.19	65
U140	Isobutyl alcohol	Isobutyl alcohol	78–83–1	5.6	170
U141	Isosafrole	Isosafrole	120–58–1	0.081	2.6
U142	Kepone	Kepone	143–50–8	0.0011	0.13
U143	Lasiocarpine	Lasiocarpine	303–34–4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U144	Lead acetate	Lead	7439–92–1	0.69	0.75 mg/L TCLP
U145	Lead phosphate	Lead	7439–92–1	0.69	0.75 mg/L TCLP
U146	Lead subacetate	Lead	7439–92–1	0.69	0.75 mg/L TCLP

U147	Maleic anhydride	Maleic anhydride	108–31–6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U148	Maleic hydrazide	Maleic hydrazide	123–33–1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U149	Malononitrile	Malononitrile	109–77–3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U150	Melphalan	Malphalan	148–82–3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U151	U151 (mercury) nonwastewaters that contain greater than or equal to 260 mg/kg total mercury.	Mercury	7439–97–6	NA	RMERC
	U151 (mercury) nonwastewaters that contain less than 260 mg/kg total mercury and that are residues from RMERC only.	Mercury	7439–97–6	NA	0.20 mg/L TCLP
	U151 (mercury) nonwastewaters that contain less than 260 mg/kg total mercury and that are not residues from RMERC.	Mercury	7439–97–6	NA	0.025 mg/L TCLP
	All U151 (mercury) wastewaters.	Mercury	7439–97–6	0.15	NA
	Elemental Mercury Contaminated with Radioactive Materials	Mercury	7439–97–6	NA	AMLGM
U152	Methacrylonitrile	Methacrylonitrile	126–98–7	0.24	84
U153	Methanethiol	Methanethiol	74–93–1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U154	Methanol	Methanol	67–56–1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
		Methanol; alternate[6] set of standards for both wastewaters and nonwastewaters	67–56–1	5.6	0.75 mg/L TCLP
U155	Methapyrilene	Methapyrilene	91–80–5	0.081	1.5

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
U156	Methyl chlorocarbonate	Methyl chlorocarbonate	79–22–1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U157	3-Methylcholanthrene	3-Methylcholanthrene	56–49–5	0.0055	15
U158	4,4′-Methylene bis(2-chloroaniline)	4,4′-Methylene bis(2-chloroaniline)	101–14–4	0.50	30
U159	Methyl ethyl ketone	Methyl ethyl ketone	78–93–3	0.28	36
U160	Methyl ethyl ketone peroxide	Methyl ethyl ketone peroxide	1338–23–4	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U161	Methyl isobutyl ketone	Methyl isobutyl ketone	108–10–1	0.14	33
U162	Methyl methacrylate	Methyl methacrylate	80–62–6	0.14	160
U163	N-Methyl N′-nitro N-nitrosoguanidine	N-Methyl N′-nitro N-nitrosoguanidine	70–25–7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U164	Methylthiouracil	Methylthiouracil	56–04–2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U165	Naphthalene	Naphthalene	91–20–3	0.059	5.6
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	91–59–8	0.52	CMBST
U169	Nitrobenzene	Nitrobenzene	98–95–3	0.068	14
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-Nitrosodiethylamine	N-Nitrosodiethylamine	55–18–5	0.40	28
U176	N-Nitroso-N-ethylurea	N-Nitroso-N-ethylurea	759–73–9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U177	N-Nitroso-N-methylurea	N-Nitroso-N-methylurea	684–93–5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U178	N-Nitroso-N-methylurethane	N-Nitroso-N-methylurethane	615–53–2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U179	N-Nitrosopiperidine	N-Nitrosopiperidine	100–75–4	0.013	35
U180	N-Nitrosopyrrolidine	N-Nitrosopyrrolidine	930–55–2	0.013	35
U181	5-Nitro-o-toluidine	5-Nitro-o-toluidine	99–55–8	0.32	28
U182	Paraldehyde	Paraldehyde	123–63–7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
U183	Pentachlorobenzene	Pentachlorobenzene	608–93–5	0.055	10
U184	Pentachloroethane	Pentachloroethane	76–01–7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
		Pentachloroethane; alternate [6] standards for both wastewaters and nonwastewaters	76–01–7	0.055	6.0
U185	Pentachloronitrobenzene	Pentachloronitrobenzene	82–68–8	0.055	4.8
U186	1,3-Pentadiene	1,3-Pentadiene	504–60–9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U187	Phenacetin	Phenacetin	62–44–2	0.081	16
U188	Phenol	Phenol	108–95–2	0.039	6.2
U189	Phosphorus sulfide	Phosphorus sulfide	1314–80–3	CHOXD; CHRED; or CMBST	CHOXd; CHRED; or CMBST
U190	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100–21–0	0.055	28
		Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85–44–9	0.055	28
U191	2-Picoline	2-Picoline	109–06–8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U192	Pronamide	Pronamide	23950–58–5	0.093	1.5

U193	1,3-Propane sultone	1,3-Propane sultone	1120–71–4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U194	n-Propylamine	n-Propylamine	107–10–8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U196	Pyridine	Pyridine	110–86–1	0.014	16
U197	p-Benzoquinone	p-Benzoquinone	106–51–4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U200	Reserpine	Reserpine	50–55–5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U201	Resorcinol	Resorcinol	108–46–3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U202	Saccharin and salts	Saccharin	81–07–2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U203	Safrole	Safrole	94–59–7	0.081	22
U204	Selenium dioxide	Selenium	7782–49–2	0.82	5.7 mg/L TCLP
U205	Selenium sulfide	Selenium	7782–49–2	0.82	5.7 mg/L TCLP
U206	Streptozotocin	Streptozotocin	18883–66–4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U207	1,2,4,5-Tetrachlorobenzene	1,2,4,5-Tetrachlorobenzene	95–94–5	0.055	14
U208	1,1,1,2-Tetrachloroethane	1,1,1,2-Tetrachloroethane	630–20–6	0.057	6.0
U209	1,1,2,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	79–34–5	0.057	6.0
U210	Tetrachloroethylene	Tetrachloroethylene	127–18–4	0.056	6.0

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
U211	Carbon tetrachloride	Carbon tetrachloride	56–23–5	0.057	6.0
U213	Tetrahydrofuran	Tetrahydrofuran	109–99–9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U214	Thallium (I) acetate	Thallium (measured in wastewaters only)	7440–28–0	1.4	RTHRM; or STABL
U215	Thallium (I) carbonate	Thallium (measured in wastewaters only)	7440–28–0	1.4	RTHRM; or STABL
U216	Thallium (I) chloride	Thallium (measured in wastewaters only)	7440–28–0	1.4	RTHRM; or STABL
U217	Thallium (I) nitrate	Thallium (measured in wastewaters only)	7440–28–0	1.4	RTHRM; or STABL
U218	Thioacetamide	Thioacetamide	62–55–5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U219	Thiourea	Thiourea	62–56–6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U220	Toluene	Toluene	108–88–3	0.080	10
U221	Toluenediamine	Toluenediamine	25376–45–8	CARBN; or CMBST	CMBST
U222	o-Toluidine hydrochloride	o-Toluidine hydrochloride	636–21–5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

U223	Toluene diisocyanate	Toluene diisocyanate	26471–62–5	CARBN; or CMBST	CMBST
U225	Bromoform (Tribromomethane)	Bromoform (Tribromomethane)	75–25–2	0.63	15
U226	1,1,1-Trichloroethane	1,1,1-Trichloroethane	71–55–6	0.054	6.0
U227	1,1,2-Trichloroethane	1,1,2-Trichloroethane	79–00–5	0.054	6.0
U228	Trichloroethylene	Trichloroethylene	79–01–6	0.054	6.0
U234	1,3,5-Trinitrobenzene	1,3,5-Trinitrobenzene	99–35–4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U235	tris-(2,3-Dibromopropyl)-phosphate	tris-(2,3-Dibromopropyl)-phosphate	126–72–7	0.11	0.10
U236	Trypan Blue	Trypan Blue	72–57–1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U237	Uracil mustard	Uracil mustard	66–75–1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U238	Urethane (Ethyl carbamate)	Urethane (Ethyl carbamate)	51–79–6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U239	Xylenes	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330–20–7	0.32	30
U240	2,4-D (2,4-Dichlorophenoxyacetic acid)	2,4-D(2,4-Dichlorophenoxyacetic acid)	94–75–7	0.72	10
	2,4-D (2,4-Dichlorophenoxyacetic acid) salts and esters		NA	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U243	Hexachloropropylene	Hexachloropropylene	1888–71–7	0.035	30
U244	Thiram	Thiram	137–26–8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable]

Waste code	Waste description and treatment/Regulatory subcategory [1]	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS [2] number	Concentration in mg/L [3]; or Technology Code [4]	Concentration in mg/kg [5] unless noted as "mg/L TCLP"; or Technology Code [4]
U246	Cyanogen bromide	Cyanogen bromide	506–68–3	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
U247	Methoxychlor	Methoxychlor	72–43–5	0.25	0.18
U248	Warfarin, & salts, when present at concentrations of 0.3% or less	Warfarin	81–81–2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U249	Zinc phosphide, Zn_3,P_2, when present at concentrations of 10% or less	Zinc Phosphide	1314–84–7	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
U271	Benomyl	Benomyl	17804–35–2	0.056	1.4
U278	Bendiocarb	Bendiocarb	22781–23–3	0.056	1.4
U279	Carbaryl	Carbaryl	63–25–2	0.006	0.14
U280	Barban	Barban	101–27–9	0.056	1.4
U328	o-Toluidine	o-Toluidine	95–53–4	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST
U353	p-Toluidine	p-Toluidine	106–49–0	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST
U359	2-Ethoxyethanol	2-Ethoxyethanol	110–80–5	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST

U364	Bendiocarb phenol [10]	Bendiocarb phenol	22961–82–6	0.056	1.4
U367	Carbofuran phenol	Carbofuran phenol	1563–38–8	0.056	1.4
U372	Carbendazim	Carbendazim	10605–21–7	0.056	1.4
U373	Propham	Propham	122–42–9	0.056	1.4
U387	Prosulfocarb	Prosulfocarb	52888–80–9	0.042	1.4
U389	Triallate	Triallate	2303–17–5	0.042	1.4
U394	A2213 [10]	A2213	30558–43–1	0.042	1.4
U395	Diethylene glycol, dicarbamate [10]	Diethylene glycol, dicarbamate	5952–26–1	0.056	1.4
U404	Triethylamine	Triethylamine	121–44–8	0.081	1.5
U409	Thiophanate-methyl	Thiophanate-methyl	23564–05–8	0.056	1.4
U410	Thiodicarb	Thiodicarb	59669–26–0	0.019	1.4
U411	Propoxur	Propoxur	114–26–1	0.056	1.4

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 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.

6 Where an alternate treatment standard or set of alternate standards has been indicated, a facility may comply with this alternate standard, but only for the Treatment/Regulatory Subcategory or physical form (i.e., wastewater and/or nonwastewater) specified for that alternate standard.

7 Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010 or 9012, 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(c0(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 O, 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 on GPO Access.

§ 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]

§ 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 1—TECHNOLOGY CODES AND DESCRIPTION OF TECHNOLOGY-BASED STANDARDS

Technology code	Description of technology-based standards
ADGAS:	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.
AMLGM:	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.
BIODG:	Biodegradation of organics or non-metallic inorganics (i.e., degradable inorganics that contain the elements of phosphorus, nitrogen, and sulfur) in units operated under either 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 biodegradation of many organic constituents that cannot be directly analyzed in wastewater residues).
CARBN:	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.
CHOXD:	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) peroxides; (6) persulfates; (7) perchlorates; (8) permangantes; 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.
CHRED:	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.
CMBST:	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, or 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.
DEACT:	Deactivation to remove the hazardous characteristics of a waste due to its ignitability, corrosivity, and/or reactivity.
FSUBS:	Fuel substitution in units operated in accordance with applicable technical operating requirements.
HLVIT:	Vitrification of high level mixed radioactive wastes in units in compliance with all applicable radioactive protection requirements under control of the Nuclear Regulatory Commission.
IMERC:	Incineration of wastes containing organics and mercury in units operated in accordance with the technical operating requirements of 40 CFR part 264 subpart 0 and part 265 subpart 0. 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).

TABLE 1—TECHNOLOGY CODES AND DESCRIPTION OF TECHNOLOGY-BASED STANDARDS—Continued

Technology code	Description of technology-based standards
INCIN:	Incineration in units operated in accordance with the technical operating requirements of 40 CFR part 264 subpart 0 and part 265 subpart 0.
LLEXT:	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.
MACRO:	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.
NEUTR:	Neutralization 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.
NLDBR:	No land disposal based on recycling.
POLYM:	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.
PRECP:	Chemical precipitation of metals and other inorganics as insoluble precipitates of oxides, hydroxides, carbonates, sulfides, sulfates, chlorides, flourides, 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 and/or potassium hydroxides; (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.
RBERY:	Thermal recovery of Beryllium.
RCGAS:	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.
RCORR:	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.
RLEAD:	Thermal recovery of lead in secondary lead smelters.
RMERC:	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).
RMETL:	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 crystalization; (6) ultrafiltration and/or (7) simple precipitation (i.e., crystalization)—*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.
RORGS:	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/crystalization (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.
RTHRM:	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 ''industrial furnaces''.
RZINC:	Resmelting in high temperature metal recovery units for the purpose of recovery of zinc.
STABL:	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.
SSTRP:	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.
WETOX:	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).

TABLE 1—TECHNOLOGY CODES AND DESCRIPTION OF TECHNOLOGY-BASED STANDARDS—Continued

Technology code	Description of technology-based standards
WTRRX:	Controlled reaction with water for highly reactive inorganic or organic chemicals with precautionary controls for protection of workers from potential violent reactions as well as precautionary controls for potential emissions of toxic/ignitable levels of gases released during the reaction.

Note 1: When a combination of these technologies (i.e., a treatment train) is specified as a single treatment standard, the order of application is specified in § 268.42, Table 2 by indicating the five letter technology code that must be applied first, then the designation ''fb.'' (an abbreviation for ''followed by''), then the five letter technology code for the technology that must be applied next, and so on.

Note 2: When more than one technology (or treatment train) are specified as *alternative* treatment standards, the five letter technology codes (or the treatment trains) are separated by a semicolon (;) with the last technology preceded by the word ''OR''. This indicates that any one of these BDAT technologies or treatment trains can be used for compliance with the standard.

(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.

[51 FR 40642, Nov. 7, 1986, as amended at 52 FR 25790, July 8, 1987; 55 FR 22692, June 1, 1990; 56 FR 3884, Jan. 31, 1991; 57 FR 8089, Mar. 6, 1992; 57 FR 37273, Aug. 18, 1992; 58 FR 29885, May 24, 1993; 59 FR 31552, June 20, 1994; 59 FR 48103, Sept. 19, 1994; 60 FR 302, Jan. 3, 1995; 61 FR 15654, Apr. 8, 1996; 62 FR 26025, May 12, 1997; 63 FR 28738, May 26, 1998]

§ 268.43 Treatment standards expressed as waste concentrations.

For the requirements previously found in this section and for treatment standards in Table CCW—Constituent Concentrations in Wastes, refer to § 268.40.

[59 FR 48103, Sept. 19, 1994]

§ 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:

(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 these 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 where the treatment standard is not based on combustion of such 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.

(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.

(i) 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.

(l) 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—WASTES EXCLUDED FROM THE TREATMENT STANDARDS UNDER § 268.40

Facility name[1] and address	Waste code	See also	Regulated hazardous constituent	Wastewaters		Nonwastewaters	
				Concentration (mg/l)	Notes	Concentration (mg/kg)	Notes
Ball-Foster Glass Container Corporation, El Monte, CA (6), (7).	D010	Table CCWE in 268.40	Selenium	NA	NA	25	NA
Craftsman Plating and Tinning, Corp., Chicago, IL.	F006	Table CCWE in 268.40	Cyanides (Total)	1.2	(2)	1800	(4)
			Cyanides (Amenable)	.86	(2 and 3)	30	(4)
			Cadmium	1.6		NA	
			Chromium	.32		NA	
			Lead	.040		NA	
			Nickel	.44		NA	
CWM Chemical Services, LLC, Model City, New York.	K088[9]	Standards under § 268.40	Arsenic	1.4	NA	5.0 mg/L TCLP	NA
Dupont Environmental Treatment—Chambers Works Wastewater Treatment Plant, Deepwater, NJ[8].	K088	Standards under § 268.40	Arsenic	1.4	NA	5.0 mg/L TCLP	NA
Owens Brockway Glass Container Company, Vernon, CA (5), (7).	D010	Table CCWE in 268.40	Selenium	NA	NA	51	NA
Northwestern Plating Works, Inc., Chicago, IL.	F006	Table CCWE in 268.40	Cyanides (Total)	1.2	(2 and 3)	970	(4)
			Cyanides (Amenable)	.86	(2)	30	(4)
			Cadmium	1.6		NA	
			Chromium	.32		NA	
			Lead	.040		NA	
			Nickel	.44		NA	
U.S. Ecology Idaho, Incorporated, Grandview, Idaho.	K088[10]	Standards under § 268.40	Arsenic	1.4	NA	5.0 mg/L TCLP	NA

(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 9010 or 9012, 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 are subject to the following conditions: (a) the wastes must be treated by Chemical Waste Management, Inc. at their Kettleman Hills facility in Kettleman City, California; and (b) this treatment variance will be valid until May 11, 2002.
[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.

Note: NA means Not Applicable.

[51 FR 40642, Nov. 7, 1986, as amended at 52 FR 21017, June 4, 1987; 53 FR 31221, Aug. 17, 1988; 54 FR 36972, Sept. 6, 1989; 56 FR 12355, Mar. 25, 1991; 61 FR 55727, Oct. 28, 1996; 62 FR 26025, May 12, 1997; 62 FR 64509, Dec. 5, 1997; 63 FR 28738, May 26, 1998; 64 FR 28391, May 26, 1999; 66 FR 33890, June 26, 2001; 67 FR 35928, May 22, 2002]

EFFECTIVE DATE NOTE: At 67 FR 36818, May 28, 2002, in § 268.44, the table in paragraph (o) is amended by removing the entry for ''Ball Foster Glass Container Corp, El Monte, CA''; adding in alphabetical order a new entry for ''St. Gobain Containers, El Monte, CA''; and revising footnote 7, effective July 12, 2002. For the convenience of the user, the added and revised text is set forth as follows:

§ 268.44 Variance from a treatment standard.

* * * * *

(o) * * *

TABLE—WASTES EXCLUDED FROM THE TREATMENT STANDARDS UNDER § 268.40

Facility name [1] and address	Waste code	See also	Regulated hazardous constituent	Wastewaters		Nonwastewaters	
				Concentration (mg/L)	Notes	Concentration (mg/kg)	Notes
*	*	*	*	*	*		
St. Gobain Containers, El Monte, CA [6] [7].	D010	Standards under § 268.40	Selenium	NA	NA	25	NA

[1] A facility may certify compliance with these treatment standards according to provisions in 40 CFR 268.7.

* * * * * * *

[6] Alternative D010 selenium standard only applies to dry scrubber solid from glass manufacturing wastes.

[7] D010 wastes generated by these two facilities are subject to the following conditions: (a) the wastes must be treated by Chemical Waste Management, Inc. at their Kettleman Hills facility in Kettleman City, California; and (b) this treatment variance will be valid until July 12, 2005.

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 paragraph (b) of this section must be treated for each contaminant 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.

(5) *Waste PCBs.* Hazardous debris that is also a waste PCB under 40 CFR part 761 is subject to the requirements of either 40 CFR part 761 or the requirements of this section, whichever are more stringent.

(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 nonwastewaster 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 [1]

Technology description	Performance and/or design and operating standard	Contaminant restrictions [2]
A. Extraction Technologies:		
1. Physical Extraction		
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).	*Glass, Metal, Plastic, Rubber:* Treatment to a clean debris surface.[3]. *Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood:* Removal of at least 0.6 cm of the surface layer; treatment to a clean debris surface.[3]	*All Debris:* None.
b. *Scarification, Grinding, and Planing:* Process utilizing striking piston heads, saws, or rotating grinding wheels such that contaminated debris surface layers are removed.	Same as above	Same as above.
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.	Same as above	Same as above.
d. *Vibratory Finishing:* Process utilizing scrubbing media, flushing fluid, and oscillating energy such that hazardous contaminants or contaminated debris surface layers are removed.[4]	Same as above	Same as above.
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.	Same as above	Same as above.
2. Chemical Extraction		
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.	*All Debris:* Treatment to a clean debris surface [3]; *Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood:* Debris must be no more than 1.2 cm (½ inch) in one dimension (i.e., thickness limit,[5] except that this thickness limit may be waived under an ''Equivalent Technology'' approval under § 268.42(b);[8] debris surfaces must be in contact with water solution for at least 15 minutes	*Brick, Cloth, Concrete, Paper, Pavement, 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,[6] an ''Equivalent Technology'' approval under § 268.42(b) must be obtained.[8]
b. *Liquid Phase Solvent Extraction:* Removal of hazardous contaminants from debris surfaces and surface pores by applying a nonaqueous 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.[4]	Same as above	*Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood:* Same as above, except that contaminant must be soluble to at least 5% by weight in the solvent.

TABLE 1—ALTERNATIVE TREATMENT STANDARDS FOR HAZARDOUS DEBRIS [1]—Continued

Technology description	Performance and/or design and operating standard	Contaminant restrictions [2]
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.[4]	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.	Same as above.
3. Thermal Extraction		
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.	For refining furnaces, treated debris must be separated from treatment residuals using simple physical or mechanical means,[9] and, prior to further treatment, such residuals must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris.	*Debris contaminated with a dioxin-listed waste:*[5] Obtain an ''Equivalent Technology'' approval under § 268.42(b).[8]
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]	*All Debris:* Obtain an ''Equivalent Technology'' approval under § 268.42(b);[8] treated debris must be separated from treatment residuals using simple physical or mechanical means,[9] and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris. *Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood:* Debris must be no more than 10 cm (4 inches) in one dimension (i.e., thickness limit),[5] except that this thickness limit may be waived under the ''Equivalent Technology'' approval	*All Debris:* Metals other than mercury.
B. Destruction Technologies:		
1. *Biological Destruction (Biodegradation):* Removal of hazardous contaminants from debris surfaces and surface pores in an aqueous solution and biodegration of organic or nonmetallic inorganic compounds (i.e., inorganics that contain phosphorus, nitrogen, or sulfur) in units operated under either aerobic or anaerobic conditions.	*All Debris:* Obtain an ''Equivalent Technology'' approval under § 268.42(b);[8] treated debris must be separated from treatment residuals using simple physical or mechanical means,[9] and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris. *Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood:* Debris must be no more than 1.2 cm (½ inch) in one dimension (i.e., thickness limit),[5] except that this thickness limit may be waived under the ''Equivalent Technology'' approval	*All Debris:* Metal contaminants.
2. Chemical Destruction		
a. *Chemical Oxidation:* Chemical or electolytic 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) perman-ganates; and/or (9) other oxidizing reagents of equivalent destruction efficiency.[4] Chemical oxidation specifically includes what is referred to as alkaline chlorination.	*All Debris:* Obtain an ''Equivalent Technology'' approval under § 268.42(b);[8] treated debris must be separated from treatment residuals using simple physical or mechanical means,[9] and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris. *Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood:* Debris must be no more than 1.2 cm (½ inch) in one dimension (i.e., thickness limit),[5] except that this thickness limit may be waived under the ''Equivalent Technology'' approval	*All Debris:* Metal contaminants.

TABLE 1—ALTERNATIVE TREATMENT STANDARDS FOR HAZARDOUS DEBRIS [1]—Continued

Technology description	Performance and/or design and operating standard	Contaminant restrictions [2]
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.[4]	Same as above	Same as above.
3. *Thermal Destruction:* Treatment in an incinerator operating in accordance with Subpart O of Parts 264 or 265 of this chapter; a boiler or industrial furnace operating in accordance with Subpart H of Part 266 of this chapter, or other thermal treatment unit operated in accordance with Subpart X, Part 264 of this chapter, or Subpart P, Part 265 of this chapter, but excluding for purposes of these debris treatment standards Thermal Desorption units.	Treated debris must be separated from treatment residuals using simple physical or mechanical means,[9] and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris.	*Brick, Concrete, Glass, Metal, Pavement, Rock, Metal:* Metals other than mercury, except that there are no metal restrictions for vitrification. *Debris contaminated with a dioxin-listed waste.*[6] Obtain an ''Equivalent Technology'' approval under § 268.42(b),[8] except that this requirement does not apply to vitrification.
C. Immobilization Technologies:		
1. *Macroencapsulation:* Application of surface coating materials such as polymeric organics (e.g., resins and plastics) or use of a jacket of inert inorganic materials to substantially reduce surface exposure to potential leaching media.	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).	None.
2. *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.[5]	Leachability of the hazardous contaminants must be reduced.	None.
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.	Sealing must avoid exposure of the debris surface to potential leaching media and sealant must be resistent to degradation by the debris and its contaminants and materials into which it may come into contact after placement (leachate, other waste, microbes).	None.

[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, unless 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 contaminants. 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.

[57 FR 37277, Aug. 18, 1992, as amended at 59 FR 48103, Sept. 19, 1994; 63 FR 28738, May 26, 1998]

§ 268.46 Alternative treatment standards based on HTMR.

For the treatment standards previously found in this section, refer to § 268.40.

[59 FR 48103, 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(i), 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.

UNIVERSAL TREATMENT STANDARDS

[Note: NA means not applicable]

Regulated constituent common name	CAS[1] number	Wastewater standard	Nonwastewater standard
		Concentration in mg/l[2]	Concentration in mg/kg[3] unless noted as ''mg/l TCLP''
Organic Constituents			
Acenaphthylene	208–96–8	0.059	3.4
Acenaphthene	83–32–9	0.059	3.4
Acetone	67–64–1	0.28	160
Acetonitrile	75–05–8	5.6	38
Acetophenone	96–86–2	0.010	9.7
2-Acetylaminofluorene	53–96–3	0.059	140
Acrolein	107–02–8	0.29	NA
Acrylamide	79–06–1	19	23
Acrylonitrile	107–13–1	0.24	84
Aldicarb sulfone[6]	1646–88–4	0.056	0.28

UNIVERSAL TREATMENT STANDARDS—Continued

[Note: NA means not applicable]

Regulated constituent common name	CAS[1] number	Wastewater standard	Nonwastewater standard
		Concentration in mg/l[2]	Concentration in mg/kg[3] unless noted as ''mg/l TCLP''
Aldrin	309–00–2	0.021	0.066
4-Aminobiphenyl	92–67–1	0.13	NA
Aniline	62–53–3	0.81	14
Anthracene	120–12–7	0.059	3.4
Aramite	140–57–8	0.36	NA
alpha-BHC	319–84–6	0.00014	0.066
beta-BHC	319–85–7	0.00014	0.066
delta-BHC	319–86–8	0.023	0.066
gamma-BHC	58–89–9	0.0017	0.066
Barban[6]	101–27–9	0.056	1.4
Bendiocarb[6]	22781–23–3	0.056	1.4
Benomyl[6]	17804–35–2	0.056	1.4
Benzene	71–43–2	0.14	10
Benz(a)anthracene	56–55–3	0.059	3.4
Benzal chloride	98–87–3	0.055	6.0
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205–99–2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207–08–9	0.11	6.8
Benzo(g,h,i)perylene	191–24–2	0.0055	1.8
Benzo(a)pyrene	50–32–8	0.061	3.4
Bromodichloromethane	75–27–4	0.35	15
Bromomethane/Methyl bromide	74–83–9	0.11	15
4-Bromophenyl phenyl ether	101–55–3	0.055	15
n-Butyl alcohol	71–36–3	5.6	2.6
Butylate[6]	2008–41–5	0.042	1.4
Butyl benzyl phthalate	85–68–7	0.017	28
2-sec-Butyl-4,6-dinitrophenol/Dinoseb	88–85–7	0.066	2.5
Carbaryl[6]	63–25–2	0.006	0.14
Carbenzadim[6]	10605–21–7	0.056	1.4
Carbofuran[6]	1563–66–2	0.006	0.14
Carbofuran phenol[6]	1563–38–8	0.056	1.4
Carbon disulfide	75–15–0	3.8	4.8 mg/l TCLP
Carbon tetrachloride	56–23–5	0.057	6.0
Carbosulfan[6]	55285–14–8	0.028	1.4
Chlordane (alpha and gamma isomers)	57–74–9	0.0033	0.26

UNIVERSAL TREATMENT STANDARDS—Continued

[Note: NA means not applicable]

Regulated constituent common name	CAS[1] number	Wastewater standard	Nonwastewater standard
		Concentration in mg/l[2]	Concentration in mg/kg[3] unless noted as ''mg/l TCLP''
p-Chloroaniline	106–47–8	0.46	16
Chlorobenzene	108–90–7	0.057	6.0
Chlorobenzilate	510–15–6	0.10	NA
2-Chloro-1,3-butadiene	126–99–8	0.057	0.28
Chlorodibromomethane	124–48–1	0.057	15
Chloroethane	75–00–3	0.27	6.0
bis(2-Chloroethoxy)methane	111–91–1	0.036	7.2
bis(2-Chloroethyl)ether	111–44–4	0.033	6.0
Chloroform	67–66–3	0.046	6.0
bis(2-Chloroisopropyl)ether	39638–32–9	0.055	7.2
p-Chloro-m-cresol	59–50–7	0.018	14
2-Chloroethyl vinyl ether	110–75–8	0.062	NA
Chloromethane/Methyl chloride	74–87–3	0.19	30
2-Chloronaphthalene	91–58–7	0.055	5.6
2-Chloropchenol	95–57–8	0.044	5.7
3-Chloropropylene	107–05–1	0.036	30
Chrysene	218–01–9	0.059	3.4
o-Cresol	95–48–7	0.11	5.6
m-Cresol (difficult to distinguish from p-cresol)	108–39–4	0.77	5.6
p-Cresol (difficult to distinguish from m-cresol)	106–44–5	0.77	5.6
m-Cumenyl methylcarbamate[6]	64–00–6	0.056	1.4
Cyclohexanone	108–94–1	0.36	0.75 mg/l TCLP
o,p′-DDD	53–19–0	0.023	0.087
p,p′-DDD	72–54–8	0.023	0.087
o,p′-DDE	3424–82–6	0.031	0.087
p,p′-DDE	72–55–9	0.031	0.087
o,p′-DDT	789–02–6	0.0039	0.087
p,p′-DDT	50–29–3	0.0039	0.087
Dibenz(a,h)anthracene	53–70–3	0.055	8.2
Dibenz(a,e)pyrene	192–65–4	0.061	NA
1,2-Dibromo-3-chloropropane	96–12–8	0.11	15
1,2-Dibromoethane/Ethylene dibromide	106–93–4	0.028	15
Dibromomethane	74–95–3	0.11	15
m-Dichlorobenzene	541–73–1	0.036	6.0

UNIVERSAL TREATMENT STANDARDS—Continued

[Note: NA means not applicable]

Regulated constituent common name	CAS[1] number	Wastewater standard	Nonwastewater standard
		Concentration in mg/l[2]	Concentration in mg/kg[3] unless noted as ''mg/l TCLP''
o-Dichlorobenzene	95–50–1	0.088	6.0
p-Dichlorobenzene	106–46–7	0.090	6.0
Dichlorodifluoromethane	75–71–8	0.23	7.2
1,1-Dichloroethane	75–34–3	0.059	6.0
1,2-Dichloroethane	107–06–2	0.21	6.0
1,1-Dichloroethylene	75–35–4	0.025	6.0
trans-1,2-Dichloroethylene	156–60–5	0.054	30
2,4-Dichlorophenol	120–83–2	0.044	14
2,6-Dichlorophenol	87–65–0	0.044	14
2,4-Dichlorophenoxyacetic acid/2,4-D	94–75–7	0.72	10
1,2-Dichloropropane	78–87–5	0.85	18
cis-1,3-Dichloropropylene	10061–01–5	0.036	18
trans-1,3-Dichloropropylene	10061–02–6	0.036	18
Dieldrin	60–57–1	0.017	0.13
Diethyl phthalate	84–66–2	0.20	28
p-Dimethylaminoazobenzene	60–11–7	0.13	NA
2,4-Dimethyl phenol	105–67–9	0.036	14
Dimethyl phthalate	131–11–3	0.047	28
Di-n-butyl phthalate	84–74–2	0.057	28
1,4-Dinitrobenzene	100–25–4	0.32	2.3
4,6-Dinitro-o-cresol	534–52–1	0.28	160
2,4-Dinitrophenol	51–28–5	0.12	160
2,4-Dinitrotoluene	121–14–2	0.32	140
2,6-Dinitrotoluene	606–20–2	0.55	28
Di-n-octyl phthalate	117–84–0	0.017	28
Di-n-propylnitrosamine	621–64–7	0.40	14
1,4-Dioxane	123–91–1	12.0	170
Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122–39–4	0.92	13
Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86–30–6	0.92	13
1,2-Diphenylhydrazine	122–66–7	0.087	NA
Disulfoton	298–04–4	0.017	6.2
Dithiocarbamates (total)[6]	NA	0.028	28
Endosulfan I	959–98–8	0.023	0.066
Endosulfan II	33213–65–9	0.029	0.13

UNIVERSAL TREATMENT STANDARDS—Continued

[Note: NA means not applicable]

Regulated constituent common name	CAS[1] number	Wastewater standard	Nonwastewater standard
		Concentration in mg/l[2]	Concentration in mg/kg[3] unless noted as ''mg/l TCLP''
Endosulfan sulfate	1031–07–8	0.029	0.13
Endrin	72–20–8	0.0028	0.13
Endrin aldehyde	7421–93–4	0.025	0.13
EPTC[6]	759–94–4	0.042	1.4
Ethyl acetate	141–78–6	0.34	33
Ethyl benzene	100–41–4	0.057	10
Ethyl cyanide/Propanenitrile	107–12–0	0.24	360
Ethyl ether	60–29–7	0.12	160
Ethyl methacrylate	97–63–2	0.14	160
Ethylene oxide	75–21–8	0.12	NA
Famphur	52–85–7	0.017	15
Fluoranthene	206–44–0	0.068	3.4
Fluorene	86–73–7	0.059	3.4
Formetanate hydrochloride[6]	23422–53–9	0.056	1.4
Heptachlor	76–44–8	0.0012	0.066
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	35822–46–9	0.000035	.0025
1,2,3,4,6,7,8-Heptachlorodibenzofluran (1,2,3,4,6,7,8-HpCDF)	67562–39–5	0.000035	.0025
1,2,3,4,6,7,8-Heptachlorodibenzofluran (1,2,3,4,7,8,9-HpCDF)	55673–89–7	0.000035	.0025
Heptachlor epoxide	1024–57–3	0.016	0.066
Hexachlorobenzene	118–74–1	0.055	10
Hexachlorobutadiene	87–68–3	0.055	5.6
Hexachlorocyclopentadiene	77–47–4	0.057	2.4
HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
Hexachloroethane	67–72–1	0.055	30
Indeno(1,2,3-c,d) pyrene	193–39–5	0.0055	3.4
Iodomethane	74–88–4	0.19	65
Isobutyl alcohol	78–83–1	5.6	170
Isodrin	465–73–6	0.021	0.066
Isosafrole	120–58–1	0.081	2.6
Kepone	143–50–0	0.0011	0.13
Methacrylonitrile	126–98–7	0.24	84
Methanol	67–56–1	5.6	0.75 mg/l TCLP
Methapyrilene	91–80–5	0.081	1.5

UNIVERSAL TREATMENT STANDARDS—Continued

[Note: NA means not applicable]

Regulated constituent common name	CAS[1] number	Wastewater standard	Nonwastewater standard
		Concentration in mg/l[2]	Concentration in mg/kg[3] unless noted as ''mg/l TCLP''
Methiocarb[6]	2032–65–7	0.056	1.4
Methomyl[6]	16752–77–5	0.028	0.14
Methoxychlor	72–43–5	0.25	0.18
3-Methylcholanthrene	56–49–5	0.0055	15
4,4-Methylene bis(2-chloroaniline)	101–14–4	0.50	30
Methylene chloride	75–09–2	0.089	30
Methyl ethyl ketone	78–93–3	0.28	36
Methyl isobutyl ketone	108–10–1	0.14	33
Methyl methacrylate	80–62–6	0.14	160
Methyl methanesulfonate	66–27–3	0.018	NA
Methyl parathion	298–00–0	0.014	4.6
Metolcarb[6]	1129–41–5	0.056	1.4
Mexacarbate[6]	315–18–4	0.056	1.4
Molinate[6]	2212–67–1	0.042	1.4
Naphthalene	91–20–3	0.059	5.6
2-Naphthylamine	91–59–8	0.52	NA
o-Nitroaniline	88–74–4	0.27	14
p-Nitroaniline	100–01–6	0.028	28
Nitrobenzene	98–95–3	0.068	14
5-Nitro-o-toluidine	99–55–8	0.32	28
o-Nitrophenol	88–75–5	0.028	13
p-Nitrophenol	100–02–7	0.12	29
N-Nitrosodiethylamine	55–18–5	0.40	28
N-Nitrosodimethylamine	62–75–9	0.40	2.3
N-Nitroso-di-n-butylamine	924–16–3	0.40	17
N-Nitrosomethylethylamine	10595–95–6	0.40	2.3
N-Nitrosomorpholine	59–89–2	0.40	2.3
N-Nitrosopiperidine	100–75–4	0.013	35
N-Nitrosopyrrolidine	930–55–2	0.013	35
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268–87–9	0.000063	0.005
1,2,3,4,6,7,8,9-Octachlorodibenzofluran (OCDF)	39001–02–0	0.000063	0.005
Oxamyl[6]	23135–22–0	0.056	0.28
Parathion	56–38–2	0.014	4.6
Total PCBs (sum of all PCB isomers, or all Aroclors)[8]	1336–36–3	0.10	10

UNIVERSAL TREATMENT STANDARDS—Continued

[Note: NA means not applicable]

Regulated constituent common name	CAS[1] number	Wastewater standard	Nonwastewater standard
		Concentration in mg/l[2]	Concentration in mg/kg[3] unless noted as ''mg/l TCLP''
Pebulate[6]	1114–71–2	0.042	1.4
Pentachlorobenzene	608–93–5	0.055	10
PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
Pentachloroethane	76–01–7	0.055	6.0
Pentachloronitrobenzene	82–68–8	0.055	4.8
Pentachlorophenol	87–86–5	0.089	7.4
Phenacetin	62–44–2	0.081	16
Phenanthrene	85–01–8	0.059	5.6
Phenol	108–95–2	0.039	6.2
Phorate	298–02–2	0.021	4.6
Phthalic acid	100–21–0	0.055	28
Phthalic anhydride	85–44–9	0.055	28
Physostigmine[6]	57–47–6	0.056	1.4
Physostigmine salicylate[6]	57–64–7	0.056	1.4
Promecarb[6]	2631–37–0	0.056	1.4
Pronamide	23950–58–5	0.093	1.5
Propham[6]	122–42–9	0.056	1.4
Propoxur[6]	114–26–1	0.056	1.4
Prosulfocarb[6]	52888–80–9	0.042	1.4
Pyrene	129–00–0	0.067	8.2
Pyridine	110–86–1	0.014	16
Safrole	94–59–7	0.081	22
Silvex/2,4,5-TP	93–72–1	0.72	7.9
1,2,4,5-Tetrachlorobenzene	95–94–3	0.055	14
TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
1,1,1,2-Tetrachloroethane	630–20–6	0.057	6.0
1,1,2,2-Tetrachloroethane	79–34–5	0.057	6.0
Tetrachloroethylene	127–18–4	0.056	6.0
2,3,4,6-Tetrachlorophenol	58–90–2	0.030	7.4
Thiodicarb[6]	59669–26–0	0.019	1.4
Thiophanate-methyl[6]	23564–05–8	0.056	1.4
Toluene	108–88–3	0.080	10

UNIVERSAL TREATMENT STANDARDS—Continued

[Note: NA means not applicable]

Regulated constituent common name	CAS[1] number	Wastewater standard	Nonwastewater standard
		Concentration in mg/l[2]	Concentration in mg/kg[3] unless noted as ''mg/l TCLP''
Toxaphene	8001–35–2	0.0095	2.6
Triallate[6]	2303–17–5	0.042	1.4
Tribromomethane/Bromoform	75–25–2	0.63	15
1,2,4-Trichlorobenzene	120–82–1	0.055	19
1,1,1-Trichloroethane	71–55–6	0.054	6.0
1,1,2-Trichloroethane	79–00–5	0.054	6.0
Trichloroethylene	79–01–6	0.054	6.0
Trichlorofluoromethane	75–69–4	0.020	30
2,4,5-Trichlorophenol	95–95–4	0.18	7.4
2,4,6-Trichlorophenol	88–06–2	0.035	7.4
2,4,5-Trichlorophenoxyacetic acid/2,4,5-T	93–76–5	0.72	7.9
1,2,3-Trichloropropane	96–18–4	0.85	30
1,1,2-Trichloro-1,2,2-trifluoroethane	76–13–1	0.057	30
Triethylamine[6]	121–44–8	0.081	1.5
tris-(2,3-Dibromopropyl) phosphate	126–72–7	0.11	0.10
Vernolate[6]	1929–77–7	0.042	1.4
Vinyl chloride	75–01–4	0.27	6.0
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330–20–7	0.32	30
Inorganic Constituents			
Antimony	7440–36–0	1.9	1.15 mg/l TCLP
Arsenic	7440–38–2	1.4	5.0 mg/l TCLP
Barium	7440–39–3	1.2	21 mg/l TCLP
Beryllium	7440–41–7	0.82	1.22 mg/l TCLP
Cadmium	7440–43–9	0.69	0.11 mg/l TCLP
Chromium (Total)	7440–47–3	2.77	0.60 mg/l TCLP
Cyanides (Total)[4]	57–12–5	1.2	590
Cyanides (Amenable)[4]	57–12–5	0.86	30
Fluoride[5]	16984–48–8	35	NA
Lead	7439–92–1	0.69	0.75 mg/l TCLP
Mercury—Nonwastewater from Retort	7439–97–6	NA	0.20 mg/l TCLP
Mercury—All Others	7439–97–6	0.15	0.025 mg/l TCLP
Nickel	7440–02–0	3.98	11 mg/l TCLP
Selenium[7]	7782–49–2	0.82	5.7 mg/l TCLP
Silver	7440–22–4	0.43	0.14 mg/l TCLP

UNIVERSAL TREATMENT STANDARDS—Continued

[Note: NA means not applicable]

Regulated constituent common name	CAS[1] number	Wastewater standard	Nonwastewater standard
		Concentration in mg/l[2]	Concentration in mg/kg[3] unless noted as ''mg/l TCLP''
Sulfide[5]	18496–25–8	14	NA
Thallium	7440–28–0	1.4	0.20 mg/l TCLP
Vanadium[5]	7440–62–2	4.3	1.6 mg/l TCLP
Zinc[5]	7440–66–6	2.61	4.3 mg/l TCLP

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 it's 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, inpart, 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.

4 Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010 or 9012, 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 Between August 26, 1996, and March 4, 1998, these constituents are not ''underlying hazardous constituents'' as defined at § 268.2(i) of this Part.

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.

[59 FR 48103, Sept. 19, 1994, as amended by 60 FR 302, Jan. 3, 1995; 61 FR 15654, Apr. 8 1996; 61 FR 33690, June 28, 1996; 62 FR 7596, Feb. 19, 1997; 63 FR 24626, May 4, 1998; 63 FR 28739, May 26, 1998; 63 FR 47417, Sept. 4, 1998; 64 FR 25417, May 11, 1999; 65 FR 14475, Mar. 17, 2000]

§ 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:

If LDRs	And if LDRs	And if	Then you
Applied to the listed waste when it contaminated the soil*.	Apply to the listed waste now.	.....	Must comply with LDRs
Didn't apply to the listed waste when it contaminated the soil*.	Apply to the listed waste now.	The soil is determined to contain the listed waste when the soil is first generated.	Must comply with LDRs.
Didn't apply to the listed waste when it contaminated the soil*.	Apply to the listed waste now.	The soil is determined not to contain the listed waste when the soil is first generated.	Needn't comply with LDRs.
Didn't apply to the listed waste when it contaminated the soil*.	Don't apply to the listed waste now.	.....	Needn't comply with LDRs.

*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.

(d) *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 flouride, 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.

[63 FR 28751, May 26, 1998, as amended at 64 FR 25417, May 11, 1999; 64 FR 56472, Oct. 20, 1999; 65 FR 81381, Dec. 26, 2000]

Subpart E—Prohibitions on Storage

§ 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) A 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, and 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 do not apply to hazardous remediation wastes stored in a staging pile approved pursuant to §264.554 of this chapter.

[51 FR 40642, Nov. 7, 1986; 52 FR 21017, June 4, 1987, as amended at 52 FR 25791, July 8, 1987; 54 FR 36972, Sept. 6, 1989; 57 FR 37281, Aug. 18, 1992; 63 FR 65940, Nov. 30, 1998]

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. Trans-1,4-Dichloro-2—butene
16. Dichlorodifluoromethane
17. 1,1-Dichloroethane
18. 1,2-Dichloroethane
19. 1,1-Dichloroethylene
20. Trans-1,2-Dichloroethene
21. 1,2-Dichloropropane
22. Trans-1,3-Dichloropropene
23. cis-1,3-Dichloropropene
24. Iodomethane
25. Methylene chloride
26. 1,1,1,2-Tetrachloroethane
27. 1,1,2,2-Tetrachloroethane
28. Tetrachloroethene
29. Tribromomethane
30. 1,1,1-Trichloroethane
31. 1,1,2-Trichloroethane
32. Trichlorothene
33. Trichloromonofluoromethane
34. 1,2,3-Thrichloropropane
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-Chlorphenol
9. 3-Chloropropionitrile
10. m-Dichlorobenzene
11. o-Dichlorobenzene
12. p-Dichlorobenzene
13. 3.3′-Dichlorobenzidine
14. 2,4-Dichlorophenol
15. 2,6-Dichlorophenol
16. Hexachlorobenzene
17. Hexachlorobutadiene
18. Hexachlorocyclopentadiene
19. Hexachloroethane
20. Hexachloroprophene
21. Hexachlorpropene
22. 4,4′-Methylenebis(2-chloroanaline)
23. Pentachlorobenzene
24. Pentachloroethane
25. Pentachloronitrobenzene
26. Pentachlorophenol
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
12. Endosulfan II

13. Endrin
14. Endrin aldehyde
15. Heptachlor
16. Heptachlor epoxide
17. Isodrin
18. Kepone
19. Methoxyclor
20. Toxaphene

IV. PHENOXYACETIC ACID HERBICIDES

1. 2,4-Dichlorophenoxyacetic acid
2. Silvex
3. 2,4,5-T

V. PCBs

1. Aroclor 1016
2. Aroclor 1221
3. Aroclor 1232
4. Aroclor 1242
5. Aroclor 1248
6. Aroclor 1254
7. Aroclor 1260
8. PCBs not otherwise specified

VI. DIOXINS AND FURANS

1. Hexachlorodibenzo-p-dioxins
2. Hexachlorodibenzofuran
3. Pentachlorodibenzo-p-dioxins
4. Pentachlorodibenzofuran
5. Tetrachlorodibenzo-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, U151.

[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 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.

Waste code/subcategory	Nonwastewaters	Wastewaters
D001 Ignitable Liquids based on 261.21(a)(1)—Low TOC Nonwastewater Subcategory (containing 1% to <10% TOC).	RORGS INCIN WETOX CHOXD BIODG	n.a.
D001 Ignitable Liquids based on 261.21(a)(1)—Ignitable Wastewater Subcategory (containing <1% TOC).	n.a.	RORGS INCIN WETOX CHOXD BIODG
D001 Compressed Gases based on 261.21(A)(3)	RCGAS INCIN FSUBS ADGAS fb. INCIN ADGAS fb. (CHOXD; or CHRED).	n.a.
D001 Ignitable Reactives based on 261.21(a)(2)	WTRRX CHOXD CHRED STABL INCIN	n.a.
D001 Ignitable Oxidizers based on 261.21(a)(4)	CHRED INCIN	CHRED INCIN

Waste code/subcategory	Nonwastewaters	Wastewaters
D002 Acid Subcategory based on 261.22(a)(1) with pH less than or equal to 2	RCORR	NEUTR
	NEUTR	INCIN
	INCIN	
D002 Alkaline Subcategory based on 261.22(a)(1) with pH greater than or equal to 12.5.	NEUTR	NEUTR
	INCIN	INCIN
D002 Other Corrosives based on 261.22(a)(2)	CHOXD	CHOXD
	CHRED	CHRED
	INCIN	INCIN
	STABL	
D003 Water Reactives based on 261.23(a) (2), (3), and (4)	INCIN	n.a.
	WTRRX	
	CHOXD	
	CHRED	
D003 Reactive Sulfides based on 261.23(a)(5)	CHOXD	CHOXD
	CHRED	CHRED
	INCIN	BIODG
	STABL	INCIN
D003 Explosives based on 261.23(a) (6), (7), and (8)	INCIN	INCIN
	CHOXD	CHOXD
	CHRED	CHRED
		BIODG
		CARBN
D003 Other Reactives based on 261.23(a)(1)	INCIN	INCIN
	CHOXD	CHOXD
	CHRED	CHRED
		BIODG
		CARBN
K044 Wastewater treatment sludges from the manufacturing and processing of explosives.	CHOXD	CHOXD
	CHRED	CHRED
	INCIN	BIODG
		CARBN
		INCIN
K045 Spent carbon from the treatment of wastewaters containing explosives	CHOXD	CHOXD
	CHRED	CHRED
	INCIN	BIODG
		CARBN
		INCIN
K047 Pink/red water from TNT operations	CHOXD	CHOXD
	CHRED	CHRED
	INCIN	BIODG
		CARBN
		INCIN

Note: ''n.a.'' stands for ''not applicable''; ''fb.'' stands for ''followed by''.

[55 FR 22714, June 1, 1990, as amended at 62 FR 26025, May 12, 1997]

Appendix VII to Part 268—LDR Effective Dates of Surface Disposed Prohibited Hazardous Wastes

Table 1—Effective Dates of Surface Disposed Wastes (Non-Soil and Debris) Regulated in the LDRS [a]—Comprehensive List

Waste code	Waste category	Effective date
D001 [c]	All (except High TOC Ignitable Liquids)	Aug. 9, 1993.
D001	High TOC Ignitable Liquids	Aug. 8, 1990.
D002 [c]	All	Aug. 9, 1993.
D003	Newly identified surface-disposed elemental phosphorus processing wastes.	May 26, 2000.
D004	Newly identified D004 and mineral processing wastes	Aug. 24, 1998.
D004	Mixed radioactive/newly identified D004 or mineral processing wastes.	May 26, 2000
D005	Newly identified D005 and mineral processing wastes	Aug. 24, 1998.
D005	Mixed radioactive/newly identified D005 or mineral processing wastes.	May 26, 2000.
D006	Newly identified D006 and mineral processing wastes	Aug. 24, 1998.
D006	Mixed radioactive/newly identified D006 or mineral processing wastes.	May 26, 2000.
D007	Newly identified D007 and mineral processing wastes	Aug. 24, 1998.
D007	Mixed radioactive/newly identified D007 or mineral processing wastes.	May 26, 2000.

TABLE 1—EFFECTIVE DATES OF SURFACE DISPOSED WASTES (NON-SOIL AND DEBRIS) REGULATED IN THE LDRS [a]—COMPREHENSIVE LIST—Continued

Waste code	Waste category	Effective date
D008	Newly identified D008 and mineral processing waste	Aug. 24, 1998.
D008	Mixed radioactive/newly identified D008 or mineral processing wastes.	May 26, 2000.
D009	Newly identified D009 and mineral processing waste	Aug. 24, 1998.
D009	Mixed radioactive/newly identified D009 or mineral processing wastes.	May 26, 2000.
D010	Newly identified D010 and mineral processing wastes	Aug. 24, 1998.
D010	Mixed radioactive/newly identified D010 or mineral processing wastes.	May 26, 2000.
D011	Newly identified D011 and mineral processing wastes	Aug. 24, 1998.
D011	Mixed radioactive/newly identified D011 or mineral processing wastes.	May 26, 2000.
D012 (that exhibit the toxicity characteristic based on the TCLP) [d].	All	Dec. 14, 1994.
D013 (that exhibit the toxicity characteristic based on the TCLP) [d].	All	Dec. 14, 1994.
D014 (that exhibit the toxicity characteristic based on the TCLP) [d].	All	Dec. 14, 1994.
D015 (that exhibit the toxicity characteristic based on the TCLP) [d].	All	Dec. 14, 1994.
D016 (that exhibit the toxicity characteristic based on the TCLP) [d].	All	Dec. 14, 1994.
D017 (that exhibit the toxicity characteristic based on the TCLP) [d].	All	Dec. 14, 1994.
D018	Mixed with radioactive wastes	Sept. 19, 1996.
D018	All others	Dec. 19, 1994.
D019	Mixed with radioactive wastes	Sept. 19, 1996.
D019	All others	Dec. 19, 1994.
D020	Mixed with radioactive wastes	Sept. 19, 1996.
D020	All others	Dec. 19, 1994.
D021	Mixed with radioactive wastes	Sept. 19, 1996.
D021	All others	Dec. 19, 1994.
D022	Mixed with radioactive wastes	Sept. 19, 1996.
D022	All others	Dec. 19, 1994.
D023	Mixed with radioactive wastes	Sept. 19, 1996.
D023	All others	Dec. 19, 1994.
D024	Mixed with radioactive wastes	Sept. 19, 1996.
D024	All others	Dec. 19, 1994.
D025	Mixed with radioactive wastes	Sept. 19, 1996.
D025	All others	Dec. 19, 1994.
D026	Mixed with radioactive wastes	Sept. 19, 1996.
D026	All others	Dec. 19, 1994.
D027	Mixed with radioactive wastes	Sept. 19, 1996.
D027	All others	Dec. 19, 1994.
D028	Mixed with radioactive wastes	Sept. 19, 1996.
D028	All others	Dec. 19, 1994.
D029	Mixed with radioactive wastes	Sept. 19, 1996.
D029	All others	Dec. 19, 1994.
D030	Mixed with radioactive wastes	Sept. 19. 1996.
D030	All others	Dec. 19, 1994.
D031	Mixed with radioactive wastes	Sept. 19, 1996.
D031	All others	Dec. 19, 1994.
D032	Mixed with radioactive wastes	Sept. 19, 1996.
D032	All others	Dec. 19, 1994.
D033	Mixed with radioactive wastes	Sept. 19, 1996.
D033	All others	Dec. 19, 1994.
D034	Mixed with radioactive wastes	Sept. 19, 1996.
D034	All others	Dec. 19, 1994.
D035	Mixed with radioactive wastes	Sept. 19, 1996.
D035	All others	Dec. 19, 1994.
D036	Mixed with radioactive wastes	Sept. 19, 1996.
D036	All others	Dec. 19, 1994.
D037	Mixed with radioactive wastes	Sept. 19, 1996.
D037	All others	Dec. 19, 1994.
D038	Mixed with radioactive wastes	Sept. 19, 1996.
D038	All others	Dec. 19, 1994.
D039	Mixed with radioactive wastes	Sept. 19, 1996.
D039	All others	Dec. 19, 1994.
D040	Mixed with radioactive wastes	Sept. 19, 1996.
D040	All others	Dec. 19, 1994.
D041	Mixed with radioactive wastes	Sept. 19, 1996.

TABLE 1—EFFECTIVE DATES OF SURFACE DISPOSED WASTES (NON-SOIL AND DEBRIS) REGULATED IN THE LDRS [a]—COMPREHENSIVE LIST—Continued

Waste code	Waste category	Effective date
D041	All others	Dec. 19, 1994.
D042	Mixed with radioactive wastes	Sept. 19, 1996.
D042	All others	Dec. 19, 1994.
D043	Mixed with radioactive wastes	Sept. 19, 1996.
D043	All others	Dec. 19, 1994.
F001	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids.	Nov. 8, 1988.
F001	All others	Nov. 8, 1986.
F002 (1,1,2-trichloroethane)	Wastewater and Nonwastewater	Aug. 8, 1990.
F002	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids.	Nov. 8, 1988.
F002	All others	Nov. 8, 1986.
F003	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids.	Nov. 8, 1988.
F003	All others	Nov. 8, 1986.
F004	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids.	Nov. 8, 1988.
F004	All others	Nov. 8, 1986.
F005 (benzene, 2-ethoxy ethanol, 2-nitropropane).	Wastewater and Nonwastewater	Aug. 8, 1990.
F005	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids.	Nov. 8, 1988.
F005	All others	Nov. 8, 1986.
F006	Wastewater	Aug. 8, 1990.
F006	Nonwastewater	Aug. 8, 1988.
F006 (cyanides)	Nonwastewater	July 8, 1989.
F007	All	July 8, 1989.
F008	All	July 8, 1989.
F009	All	July 8, 1989.
F010	All	June 8, 1989.
F011 (cyanides)	Nonwastewater	Dec. 8, 1989.
F011	All others	July 8, 1989.
F012 (cyanides)	Nonwastewater	Dec. 8, 1989.
F012	All others	July 8, 1989.
F019	All	Aug. 8, 1990.
F020	All	Nov. 8, 1988.
F021	All	Nov. 8, 1988.
F025	All	Aug. 8, 1990.
F026	All	Nov. 8, 1988.
F027	All	Nov. 8, 1988.
F028	All	Nov. 8, 1988.
F032	Mixed with radioactive wastes	May 12, 1999
F032	All others	Aug. 12, 1997.
F034	Mixed with radioactive wastes	May 12, 1999
F034	All others	Aug. 12, 1997.
F035	Mixed with radioactive wastes	May 12, 1999.
F035	All others	Aug. 12, 1997.
F037	Not generated from surface impoundment cleanouts or closures.	June 30, 1993.
F037	Generated from surface impoundment cleanouts or closures	June 30, 1994.
F037	Mixed with radioactive wastes	June 30, 1994.
F038	Not generated from surface impoundment cleanouts or closures.	June 30, 1993.
F038	Generated from surface impoundment cleanouts or closures	June 30, 1994.
F038	Mixed with radioactive wastes	June 30, 1994.
F039	Wastewater	Aug. 8, 1990.
F039	Nonwastewater	May 8, 1992.
K001 (organics) [b]	All	Aug. 8, 1988.
K001	All others	Aug. 8, 1988.
K002	All	Aug. 8, 1990.
K003	All	Aug. 8, 1990.
K004	Wastewater	Aug. 8, 1990.
K004	Nonwastewater	Aug. 8, 1988.
K005	Wastewater	Aug. 8, 1990.
K005	Nonwastewater	June 8, 1989.
K006	All	Aug. 8, 1990.

TABLE 1—EFFECTIVE DATES OF SURFACE DISPOSED WASTES (NON-SOIL AND DEBRIS) REGULATED IN THE LDRS [a]—COMPREHENSIVE LIST—Continued

Waste code	Waste category	Effective date
K007	Wastewater	Aug. 8, 1990.
K007	Nonwastewater	June 8, 1989.
K008	Wastewater	Aug. 8, 1990.
K008	Nonwastewater	Aug. 8, 1988.
K009	All	June 8, 1989.
K010	All	June 8, 1989.
K011	Wastewater	Aug. 8, 1990.
K011	Nonwastewater	June 8, 1989.
K013	Wastewater	Aug. 8, 1990.
K013	Nonwastewater	June 8, 1989.
K014	Wastewater	Aug. 8, 1990.
K014	Nonwastewater	June 8, 1989.
K015	Wastewater	Aug. 8, 1988.
K015	Nonwastewater	Aug. 8, 1990.
K016	All	Aug. 8, 1988.
K017	All	Aug. 8, 1990.
K018	All	Aug. 8, 1988.
K019	All	Aug. 8, 1988.
K020	All	Aug. 8, 1988.
K021	Wastewater	Aug. 8, 1990.
K021	Nonwastewater	Aug. 8, 1988.
K022	Wastewater	Aug. 8, 1990.
K022	Nonwastewater	Aug. 8, 1988.
K023	All	June 8, 1989.
K024	All	Aug. 8, 1988.
K025	Wastewater	Aug. 8, 1990.
K025	Nonwastewater	Aug. 8, 1988.
K026	All	Aug. 8, 1990.
K027	All	June 8, 1989.
K028 (metals)	Nonwastewater	Aug. 8, 1990.
K028	All others	June 8, 1989.
K029	Wastewater	Aug. 8, 1990.
K029	Nonwastewater	June 8, 1989.
K030	All	Aug. 8, 1988.
K031	Wastewater	Aug. 8, 1990.
K031	Nonwastewater	May 8, 1992.
K032	All	Aug. 8, 1990.
K033	All	Aug. 8, 1990.
K034	All	Aug. 8, 1990.
K035	All	Aug. 8, 1990.
K036	Wastewater	June 8, 1989.
K036	Nonwastewater	Aug. 8, 1988.
K037 [b]	Wastewater	Aug. 8, 1988.
K037	Nonwastewater	Aug. 8, 1988.
K038	All	June 8, 1989.
K039	All	June 8, 1989.
K040	All	June 8, 1989.
K041	All	Aug. 8, 1990.
K042	All	Aug. 8, 1990.
K043	All	June 8, 1989.
K044	All	Aug. 8, 1988.
K045	All	Aug. 8, 1988.
K046 (Nonreactive)	Nonwastewater	Aug. 8, 1988.
K046	All others	Aug. 8, 1990.
K047	All	Aug. 8, 1988.
K048	Wastewater	Aug. 8, 1990.
K048	Nonwastewater	Nov. 8, 1990.
K049	Wastewater	Aug. 8, 1990.
K049	Nonwastewater	Nov. 8, 1990.
K050	Wastewater	Aug. 8, 1990.
K050	Nonwastewater	Nov. 8, 1990.
K051	Wastewater	Aug. 8, 1990.
K051	Nonwastewater	Nov. 8, 1990.
K052	Wastewater	Aug. 8, 1990.
K052	Nonwastewater	Nov. 8, 1990.
K060	Wastewater	Aug. 8, 1990.
K060	Nonwastewater	Aug. 8, 1988.
K061	Wastewater	Aug. 8, 1990.
K061	Nonwastewater	June 30, 1992.
K062	All	Aug. 8, 1988.
K069 (Non-Calcium Sulfate)	Nonwastewater	Aug. 8, 1988.

TABLE 1—EFFECTIVE DATES OF SURFACE DISPOSED WASTES (NON-SOIL AND DEBRIS) REGULATED IN THE LDRS [a]—COMPREHENSIVE LIST—Continued

Waste code	Waste category	Effective date
K069	All others	Aug. 8, 1990.
K071	All	Aug. 8, 1990.
K073	All	Aug. 8, 1990.
K083	All	Aug. 8, 1990.
K084	Wastewater	Aug. 8, 1990.
K084	Nonwastewater	May 8, 1992.
K085	All	Aug. 8, 1990.
K086 (organics) [b]	All	Aug. 8, 1988.
K086	All others	Aug. 8, 1988.
K087	All	Aug. 8, 1988.
K088	All others	Oct. 8, 1997.
K088	All others	Jan. 8, 1997.
K093	All	June 8, 1989.
K094	All	June 8, 1989.
K095	Wastewater	Aug. 8, 1990.
K095	Nonwastewater	June 8, 1989.
K096	Wastewater	Aug. 8, 1990.
K096	Nonwastewater	June 8, 1989.
K097	All	Aug. 8, 1990.
K098	All	Aug. 8, 1990.
K099	All	Aug. 8, 1988.
K100	Wastewater	Aug. 8, 1990.
K100	Nonwastewater	Aug. 8, 1988.
K101 (organics)	Wastewater	Aug. 8, 1988.
K101 (metals)	Wastewater	Aug. 8, 1990.
K101 (organics)	Nonwastewater	Aug. 8, 1988.
K101 (metals)	Nonwastewater	May 8, 1992.
K102 (organics)	Wastewater	Aug. 8, 1988.
K102 (metals)	Wastewater	Aug. 8, 1990.
K102 (organics)	Nonwastewater	Aug. 8, 1988.
K102 (metals)	Nonwastewater	May 8, 1992.
K103	All	Aug. 8, 1988.
K104	All	Aug. 8, 1988.
K105	All	Aug. 8, 1990.
K106	Wastewater	Aug. 8, 1990.
K106	Nonwastewater	May 8, 1992.
K107	Mixed with radioactive wastes	June 30, 1994.
K107	All others	Nov. 9, 1992.
K108	Mixed with radioactive wastes	June 30, 1994.
K108	All others	Nov. 9, 1992.
K109	Mixed with radioactive wastes	June 30, 1994.
K109	All others	Nov. 9, 1992.
K110	Mixed with radioactive wastes	June 30, 1994.
K110	All others	Nov. 9, 1992.
K111	Mixed with radioactive wastes	June 30, 1994.
K111	All others	Nov. 9, 1992.
K112	Mixed with radioactive wastes	June 30, 1994.
K112	All others	Nov. 9, 1992.
K113	All	June 8, 1989.
K114	All	June 8, 1989.
K115	All	June 8, 1989.
K116	All	June 8, 1989.
K117	Mixed with radioactive wastes	June 30, 1994.
K117	All others	Nov. 9, 1992.
K118	Mixed with radioactive wastes	June 30, 1994.
K118	All others	Nov. 9, 1992.
K123	Mixed with radioactive wastes	June 30, 1994.
K123	All others	Nov. 9, 1992.
K124	Mixed with radioactive wastes	June 30, 1994.
K124	All others	Nov. 9, 1992.
K125	Mixed with radioactive wastes	June 30, 1994.
K125	All others	Nov. 9, 1992.
K126	Mixed with radioactive wastes	June 30, 1994.
K126	All others	Nov. 9, 1992.
K131	Mixed with radioactive wastes	June 30, 1994.
K131	All others	Nov. 9, 1992.
K132	Mixed with radioactive wastes	June 30, 1994.
K132	All others	Nov. 9, 1992.
K136	Mixed with radioactive wastes	June 30, 1994.
K136	All others	Nov. 9, 1992.
K141	Mixed with radioactive wastes	Sep. 19, 1996.

TABLE 1—EFFECTIVE DATES OF SURFACE DISPOSED WASTES (NON-SOIL AND DEBRIS) REGULATED IN THE LDRS [a]—COMPREHENSIVE LIST—Continued

Waste code	Waste category	Effective date
K141	All others	Dec. 19, 1994.
K142	Mixed with radioactive wastes	Sep. 19, 1996..
K142	All others	Dec. 19, 1994.
K143	Mixed with radioactive wastes	Sep. 19, 1996.
K143	All others	Dec. 19, 1994.
K144	Mixed with radioactive wastes	Sep. 19, 1996.
K144	All others	Dec. 19, 1994.
K145	Mixed with radioactive wastes	Sep. 19, 1996.
K145	All others	Dec. 19, 1994.
K147	Mixed with radioactive wastes	Sep. 19, 1996.
K147	All others	Dec. 19, 1994.
K148	Mixed with radioactive wastes	Sep. 19, 1996.
K148	All others	Dec. 19, 1994.
K149	Mixed with radioactive wastes	Sep. 19, 1996.
K149	All others	Dec. 19, 1994.
K150	Mixed with radioactive wastes	Sep. 19, 1996.
K150	All others	Dec. 19, 1994.
K151	Mixed with radioactive wastes	Sep. 19, 1996.
K151	All others	Dec. 19, 1994.
K156	Mixed with radioactive wastes	Apr. 8, 1998.
K156	All others	July 8, 1996.
K157	Mixed with radioactive wastes	Apr. 8, 1998.
K157	All others	July 8, 1996.
K158	Mixed with radioactive wastes	Apr. 8, 1998.
K158	All others	July 8, 1996.
K159	Mixed with radioactive wastes	Apr. 8, 1998.
K159	All others	July 8, 1996.
K160	Mixed with radioactive wastes	Apr. 8, 1998.
K160	All others	July 8, 1996.
K161	Mixed with radioactive wastes	Apr. 8, 1998.
K161	All others	July 8, 1996.
P001	All	Aug. 8, 1990.
P002	All	Aug. 8, 1990.
P003	All	Aug. 8, 1990.
P004	All	Aug. 8, 1990.
P005	All	Aug. 8, 1990.
P006	All	Aug. 8, 1990.
P007	All	Aug. 8, 1990.
P008	All	Aug. 8, 1990.
P009	All	Aug. 8, 1990.
P010	Wastewater	Aug. 8, 1990.
P010	Nonwastewater	May 8, 1992.
P011	Wastewater	Aug. 8, 1990.
P011	Nonwastewater	May 8, 1992.
P012	Wastewater	Aug. 8, 1990.
P012	Nonwastewater	May 8, 1992.
P013 (barium)	Nonwastewater	Aug. 8, 1990.
P013	All others	June 8, 1989.
P014	All	Aug. 8, 1990.
P015	All	Aug. 8, 1990.
P016	All	Aug. 8, 1990.
P017	All	Aug. 8, 1990.
P018	All	Aug. 8, 1990.
P020	All	Aug. 8, 1990.
P021	All	June 8, 1989.
P022	All	Aug. 8, 1990.
P023	All	Aug. 8, 1990.
P024	All	Aug. 8, 1990.
P026	All	Aug. 8, 1990.
P027	All	Aug. 8, 1990.
P028	All	Aug. 8, 1990.
P029	All	June 8, 1989.
P030	All	June 8, 1989.
P031	All	Aug. 8, 1990.
P033	All	Aug. 8, 1990.
P034	All	Aug. 8, 1990.
P036	Wastewater	Aug. 8, 1990.
P036	Nonwastewater	May 8, 1992.
P037	All	Aug. 8, 1990.
P038	Wastewater	Aug. 8, 1990.
P038	Nonwastewater	May 8, 1992.

TABLE 1—EFFECTIVE DATES OF SURFACE DISPOSED WASTES (NON-SOIL AND DEBRIS) REGULATED IN THE LDRS [a]—COMPREHENSIVE LIST—Continued

Waste code	Waste category	Effective date
P039	All	June 8, 1989.
P040	All	June 8, 1989.
P041	All	June 8, 1989.
P042	All	Aug. 8, 1990.
P043	All	June 8, 1989.
P044	All	June 8, 1989.
P045	All	Aug. 8, 1990.
P046	All	Aug. 8, 1990.
P047	All	Aug. 8, 1990.
P048	All	Aug. 8, 1990.
P049	All	Aug. 8, 1990.
P050	All	Aug. 8, 1990.
P051	All	Aug. 8, 1990.
P054	All	Aug. 8, 1990.
P056	All	Aug. 8, 1990.
P057	All	Aug. 8, 1990.
P058	All	Aug. 8, 1990.
P059	All	Aug. 8, 1990.
P060	All	Aug. 8, 1990.
P062	All	June 8, 1989.
P063	All	June 8, 1989.
P064	All	Aug. 8, 1990.
P065	Wastewater	Aug. 8, 1990.
P065	Nonwastewater	May 8, 1992.
P066	All	Aug. 8, 1990.
P067	All	Aug. 8, 1990.
P068	All	Aug. 8, 1990.
P069	All	Aug. 8, 1990.
P070	All	Aug. 8, 1990.
P071	All	June 8, 1989.
P072	All	Aug. 8, 1990.
P073	All	Aug. 8, 1990.
P074	All	June 8, 1989.
P075	All	Aug. 8, 1990.
P076	All	Aug. 8, 1990.
P077	All	Aug. 8, 1990.
P078	All	Aug. 8, 1990.
P081	All	Aug. 8, 1990.
P082	All	Aug. 8, 1990.
P084	All	Aug. 8, 1990.
P085	All	June 8, 1989.
P087	All	May 8, 1992.
P088	All	Aug. 8, 1990.
P089	All	June 8, 1989.
P092	Wastewater	Aug. 8, 1990.
P092	Nonwastewater	May 8, 1992.
P093	All	Aug. 8, 1990.
P094	All	June 8, 1989.
P095	All	Aug. 8, 1990.
P096	All	Aug. 8, 1990.
P097	All	June 8, 1989.
P098	All	June 8, 1989.
P099 (silver)	Wastewater	Aug. 8, 1990.
P099	All others	June 8, 1989.
P101	All	Aug. 8, 1990.
P102	All	Aug. 8, 1990.
P103	All	Aug. 8, 1990.
P104 (silver)	Wastewater	Aug. 8, 1990.
P104	All others	June 8, 1989.
P105	All	Aug. 8, 1990.
P106	All	June 8, 1989.
P108	All	Aug. 8, 1990.
P109	All	June 8, 1989.
P110	All	Aug. 8, 1990.
P111	All	June 8, 1989.
P112	All	Aug. 8, 1990.
P113	All	Aug. 8, 1990.
P114	All	Aug. 8, 1990.
P115	All	Aug. 8, 1990.
P116	All	Aug. 8, 1990.
P118	All	Aug. 8, 1990.

TABLE 1—EFFECTIVE DATES OF SURFACE DISPOSED WASTES (NON-SOIL AND DEBRIS) REGULATED IN THE LDRS [a]—COMPREHENSIVE LIST—Continued

Waste code	Waste category	Effective date
P119	All	Aug. 8, 1990.
P120	All	Aug. 8, 1990.
P121	All	June 8, 1989.
P122	All	Aug. 8, 1990.
P123	All	Aug. 8, 1990.
P127	Mixed with radioactive wastes	Apr. 8, 1998.
P127	All others	July 8, 1996.
P128	Mixed with radioactive wastes	Apr. 8, 1998.
P128	All others	July 8, 1996.
P185	Mixed with radioactive wastes	Apr. 8, 1998.
P185	All others	July 8, 1996.
P188	Mixed with radioactive wastes	Apr. 8, 1998.
P188	All others	July 8, 1996.
P189	Mixed with radioactive wastes	Apr. 8, 1998.
P189	All others	July 8, 1996.
P190	Mixed with radioactive wastes	Apr. 8, 1998.
P190	All others	July 8, 1996.
P191	Mixed with radioactive wastes	Apr. 8, 1998.
P191	All others	July 8, 1996.
P192	Mixed with radioactive wastes	Apr. 8, 1998.
P192	All others	July 8, 1996.
P194	Mixed with radioactive wastes	Apr. 8, 1998.
P194	All others	July 8, 1996.
P196	Mixed with radioactive wastes	Apr. 8, 1998.
P196	All others	July 8, 1996.
P197	Mixed with radioactive wastes	Apr. 8, 1998.
P197	All others	July 8, 1996.
P198	Mixed with radioactive wastes	Apr. 8, 1998.
P198	All others	July 8, 1996.
P199	Mixed with radioactive wastes	Apr. 8, 1998.
P199	All others	July 8, 1996.
P201	Mixed with radioactive wastes	Apr. 8, 1998.
P201	All others	July 8, 1996.
P202	Mixed with radioactive wastes	Apr. 8, 1998.
P202	All others	July 8, 1996.
P203	Mixed with radioactive wastes	Apr. 8, 1998.
P203	All others	July 8, 1996.
P204	Mixed with radioactive wastes	Apr. 8, 1998.
P204	All others	July 8, 1996.
P205	Mixed with radioactive wastes	Apr. 8, 1998.
P205	All others	July 8, 1996.
U001	All	Aug. 8, 1990.
U002	All	Aug. 8, 1990.
U003	All	Aug. 8, 1990.
U004	All	Aug. 8, 1990.
U005	All	Aug. 8, 1990.
U006	All	Aug. 8, 1990.
U007	All	Aug. 8, 1990.
U008	All	Aug. 8, 1990.
U009	All	Aug. 8, 1990.
U010	All	Aug. 8, 1990.
U011	All	Aug. 8, 1990.
U012	All	Aug. 8, 1990.
U014	All	Aug. 8, 1990.
U015	All	Aug. 8, 1990.
U016	All	Aug. 8, 1990.
U017	All	Aug. 8, 1990.
U018	All	Aug. 8, 1990.
U019	All	Aug. 8, 1990.
U020	All	Aug. 8, 1990.
U021	All	Aug. 8, 1990.
U022	All	Aug. 8, 1990.
U023	All	Aug. 8, 1990.
U024	All	Aug. 8, 1990.
U025	All	Aug. 8, 1990.
U026	All	Aug. 8, 1990.
U027	All	Aug. 8, 1990.
U028	All	June 8, 1989.
U029	All	Aug. 8, 1990.
U030	All	Aug. 8, 1990.
U031	All	Aug. 8, 1990.

TABLE 1—EFFECTIVE DATES OF SURFACE DISPOSED WASTES (NON-SOIL AND DEBRIS) REGULATED IN THE LDRS [a]—COMPREHENSIVE LIST—Continued

Waste code	Waste category	Effective date
U032	All	Aug. 8, 1990.
U033	All	Aug. 8, 1990.
U034	All	Aug. 8, 1990.
U035	All	Aug. 8, 1990.
U036	All	Aug. 8, 1990.
U037	All	Aug. 8, 1990.
U038	All	Aug. 8, 1990.
U039	All	Aug. 8, 1990.
U041	All	Aug. 8, 1990.
U042	All	Aug. 8, 1990.
U043	All	Aug. 8, 1990.
U044	All	Aug. 8, 1990.
U045	All	Aug. 8, 1990.
U046	All	Aug. 8, 1990.
U047	All	Aug. 8, 1990.
U048	All	Aug. 8, 1990.
U049	All	Aug. 8, 1990.
U050	All	Aug. 8, 1990.
U051	All	Aug. 8, 1990.
U052	All	Aug. 8, 1990.
U053	All	Aug. 8, 1990.
U055	All	Aug. 8, 1990.
U056	All	Aug. 8, 1990.
U057	All	Aug. 8, 1990.
U058	All	June 8, 1989.
U059	All	Aug. 8, 1990.
U060	All	Aug. 8, 1990.
U061	All	Aug. 8, 1990.
U062	All	Aug. 8, 1990.
U063	All	Aug. 8, 1990.
U064	All	Aug. 8, 1990.
U066	All	Aug. 8, 1990.
U067	All	Aug. 8, 1990.
U068	All	Aug. 8, 1990.
U069	All	June 30, 1992.
U070	All	Aug. 8, 1990.
U071	All	Aug. 8, 1990.
U072	All	Aug. 8, 1990.
U073	All	Aug. 8, 1990.
U074	All	Aug. 8, 1990.
U075	All	Aug. 8, 1990.
U076	All	Aug. 8, 1990.
U077	All	Aug. 8, 1990.
U078	All	Aug. 8, 1990.
U079	All	Aug. 8, 1990.
U080	All	Aug. 8, 1990.
U081	All	Aug. 8, 1990.
U082	All	Aug. 8, 1990.
U083	All	Aug. 8, 1990.
U084	All	Aug. 8, 1990.
U085	All	Aug. 8, 1990.
U086	All	Aug. 8, 1990.
U087	All	June 8, 1989.
U088	All	June 8, 1989.
U089	All	Aug. 8, 1990.
U090	All	Aug. 8, 1990.
U091	All	Aug. 8, 1990.
U092	All	Aug. 8, 1990.
U093	All	Aug. 8, 1990.
U094	All	Aug. 8, 1990.
U095	All	Aug. 8, 1990.
U096	All	Aug. 8, 1990.
U097	All	Aug. 8, 1990.
U098	All	Aug. 8, 1990.
U099	All	Aug. 8, 1990.
U101	All	Aug. 8, 1990.
U102	All	June 8, 1989.
U103	All	Aug. 8, 1990.
U105	All	Aug. 8, 1990.
U106	All	Aug. 8, 1990.
U107	All	June 8, 1989.

TABLE 1—EFFECTIVE DATES OF SURFACE DISPOSED WASTES (NON-SOIL AND DEBRIS) REGULATED IN THE LDRS [a]—COMPREHENSIVE LIST—Continued

Waste code	Waste category	Effective date
U108	All	Aug. 8, 1990.
U109	All	Aug. 8, 1990.
U110	All	Aug. 8, 1990.
U111	All	Aug. 8, 1990.
U112	All	Aug. 8, 1990.
U113	All	Aug. 8, 1990.
U114	All	Aug. 8, 1990.
U115	All	Aug. 8, 1990.
U116	All	Aug. 8, 1990.
U117	All	Aug. 8, 1990.
U118	All	Aug. 8, 1990.
U119	All	Aug. 8, 1990.
U120	All	Aug. 8, 1990.
U121	All	Aug. 8, 1990.
U122	All	Aug. 8, 1990.
U123	All	Aug. 8, 1990.
U124	All	Aug. 8, 1990.
U125	All	Aug. 8, 1990.
U126	All	Aug. 8, 1990.
U127	All	Aug. 8, 1990.
U128	All	Aug. 8, 1990.
U129	All	Aug. 8, 1990.
U130	All	Aug. 8, 1990.
U131	All	Aug. 8, 1990.
U132	All	Aug. 8, 1990.
U133	All	Aug. 8, 1990.
U134	All	Aug. 8, 1990.
U135	All	Aug. 8, 1990.
U136	Wastewater	Aug. 8, 1990.
U136	Nonwastewater	May 8, 1992.
U137	All	Aug. 8, 1990.
U138	All	Aug. 8, 1990.
U140	All	Aug. 8, 1990.
U141	All	Aug. 8, 1990.
U142	All	Aug. 8, 1990.
U143	All	Aug. 8, 1990.
U144	All	Aug. 8, 1990.
U145	All	Aug. 8, 1990.
U146	All	Aug. 8, 1990.
U147	All	Aug. 8, 1990.
U148	All	Aug. 8, 1990.
U149	All	Aug. 8, 1990.
U150	All	Aug. 8, 1990.
U151	Wastewater	Aug. 8, 1990.
U151	Nonwastewater	May 8, 1992.
U152	All	Aug. 8, 1990.
U153	All	Aug. 8, 1990.
U154	All	Aug. 8, 1990.
U155	All	Aug. 8, 1990.
U156	All	Aug. 8, 1990.
U157	All	Aug. 8, 1990.
U158	All	Aug. 8, 1990.
U159	All	Aug. 8, 1990.
U160	All	Aug. 8, 1990.
U161	All	Aug. 8, 1990.
U162	All	Aug. 8, 1990.
U163	All	Aug. 8, 1990.
U164	All	Aug. 8, 1990.
U165	All	Aug. 8, 1990.
U166	All	Aug. 8, 1990.
U167	All	Aug. 8, 1990.
U168	All	Aug. 8, 1990.
U169	All	Aug. 8, 1990.
U170	All	Aug. 8, 1990.
U171	All	Aug. 8, 1990.
U172	All	Aug. 8, 1990.
U173	All	Aug. 8, 1990.
U174	All	Aug. 8, 1990.
U176	All	Aug. 8, 1990.
U177	All	Aug. 8, 1990.
U178	All	Aug. 8, 1990.

TABLE 1—EFFECTIVE DATES OF SURFACE DISPOSED WASTES (NON-SOIL AND DEBRIS) REGULATED IN THE LDRS [a]—COMPREHENSIVE LIST—Continued

Waste code	Waste category	Effective date
U179	All	Aug. 8, 1990.
U180	All	Aug. 8, 1990.
U181	All	Aug. 8, 1990.
U182	All	Aug. 8, 1990.
U183	All	Aug. 8, 1990.
U184	All	Aug. 8, 1990.
U185	All	Aug. 8, 1990.
U186	All	Aug. 8, 1990.
U187	All	Aug. 8, 1990.
U188	All	Aug. 8, 1990.
U189	All	Aug. 8, 1990.
U190	All	June 8, 1989.
U191	All	Aug. 8, 1990.
U192	All	Aug. 8, 1990.
U193	All	Aug. 8, 1990.
U194	All	June 8, 1989.
U196	All	Aug. 8, 1990.
U197	All	Aug. 8, 1990.
U200	All	Aug. 8, 1990.
U201	All	Aug. 8, 1990.
U202	All	Aug. 8, 1990.
U203	All	Aug. 8, 1990.
U204	All	Aug. 8, 1990.
U205	All	Aug. 8, 1990.
U206	All	Aug. 8, 1990.
U207	All	Aug. 8, 1990.
U208	All	Aug. 8, 1990.
U209	All	Aug. 8, 1990.
U210	All	Aug. 8, 1990.
U211	All	Aug. 8, 1990.
U213	All	Aug. 8, 1990.
U214	All	Aug. 8, 1990.
U215	All	Aug. 8, 1990.
U216	All	Aug. 8, 1990.
U217	All	Aug. 8, 1990.
U218	All	Aug. 8, 1990.
U219	All	Aug. 8, 1990.
U220	All	Aug. 8, 1990.
U221	All	June 8, 1989.
U222	All	Aug. 8, 1990.
U223	All	June 8, 1989.
U225	All	Aug. 8, 1990.
U226	All	Aug. 8, 1990.
U227	All	Aug. 8, 1990.
U228	All	Aug. 8, 1990.
U234	All	Aug. 8, 1990.
U235	All	June 8, 1989.
U236	All	Aug. 8, 1990.
U237	All	Aug. 8, 1990.
U238	All	Aug. 8, 1990.
U239	All	Aug. 8, 1990.
U240	All	Aug. 8, 1990.
U243	All	Aug. 8, 1990.
U244	All	Aug. 8, 1990.
U246	All	Aug. 8, 1990.
U247	All	Aug. 8, 1990.
U248	All	Aug. 8, 1990.
U249	All	Aug. 8, 1990.
U271	Mixed with radioactive wastes	Apr. 8, 1998.
U271	All others	July 8, 1996.
U277	Mixed with radioactive wastes	Apr. 8, 1998.
U277	All others	July 8, 1996.
U278	Mixed with radioactive wastes	Apr. 8, 1998.
U278	All others	July 8, 1996.
U279	Mixed with radioactive wastes	Apr. 8, 1998.
U279	All others	July 8, 1996.
U280	Mixed with radioactive wastes	Apr. 8, 1998.
U280	All others	July 8, 1996.
U328	Mixed with radioactive wastes	June 30, 1994.
U328	All others	Nov. 9, 1992.
U353	Mixed with radioactive wastes	June 30, 1994.

TABLE 1—EFFECTIVE DATES OF SURFACE DISPOSED WASTES (NON-SOIL AND DEBRIS) REGULATED IN THE LDRS [a]—COMPREHENSIVE LIST—Continued

Waste code	Waste category	Effective date
U353	All others	Nov. 9, 1992.
U359	Mixed with radioactive wastes	June 30, 1994.
U359	All others	Nov. 9, 1992.
U364	Mixed with radioactive wastes	Apr. 8, 1998.
U364	All others	July 8, 1996.
U365	Mixed with radioactive wastes	Apr. 8, 1998.
U365	All others	July 8, 1996.
U366	Mixed with radioactive wastes	Apr. 8, 1998.
U366	All others	July 8, 1996.
U367	Mixed with radioactive wastes	Apr. 8, 1998.
U367	All others	July 8, 1996.
U372	Mixed with radioactive wastes	Apr. 8, 1998.
U372	All others	July 8, 1996.
U373	Mixed with radioactive wastes	Apr. 8, 1998.
U373	All others	July 8, 1996.
U375	Mixed with radioactive wastes	Apr. 8, 1998.
U375	All others	July 8, 1996.
U376	Mixed with radioactive wastes	Apr. 8, 1998.
U376	All others	July 8, 1996.
U377	Mixed with radioactive wastes	Apr. 8, 1998.
U377	All others	July 8, 1996.
U378	Mixed with radioactive wastes	Apr. 8, 1998.
U378	All others	July 8, 1996.
U379	Mixed with radioactive wastes	Apr. 8, 1998.
U379	All others	July 8, 1996.
U381	Mixed with radioactive wastes	Apr. 8, 1998.
U381	All others	July 8, 1996.
U382	Mixed with radioactive wastes	Apr. 8, 1998.
U382	All others	July 8, 1996.
U383	Mixed with radioactive wastes	Apr. 8, 1998.
U383	All others	July 8, 1996.
U384	Mixed with radioactive wastes	Apr. 8, 1998.
U384	All others	July 8, 1996.
U385	Mixed with radioactive wastes	Apr. 8, 1998.
U385	All others	July 8, 1996.
U386	Mixed with radioactive wastes	Apr. 8, 1998.
U386	All others	July 8, 1996.
U387	Mixed with radioactive wastes	Apr. 8, 1998.
U387	All others	July 8, 1996.
U389	Mixed with radioactive wastes	Apr. 8, 1998.
U389	All others	July 8, 1996.
U390	Mixed with radioactive wastes	Apr. 8, 1998.
U390	All others	July 8, 1996.
U391	Mixed with radioactive wastes	Apr. 8, 1998.
U391	All others	July 8, 1996.
U392	Mixed with radioactive wastes	Apr. 8, 1998.
U392	All others	July 8, 1996.
U393	Mixed with radioactive wastes	Apr. 8, 1998.
U393	All others	July 8, 1996.
U394	Mixed with radioactive wastes	Apr. 8, 1998.
U394	All others	July 8, 1996.
U395	Mixed with radioactive wastes	Apr. 8, 1998.
U395	All others	July 8, 1996.
U396	Mixed with radioactive wastes	Apr. 8, 1998.
U396	All others	July 8, 1996.
U400	Mixed with radioactive wastes	Apr. 8, 1998.
U400	All others	July 8, 1996.
U401	Mixed with radioactive wastes	Apr. 8, 1998.
U401	All others	July 8, 1996.
U402	Mixed with radioactive wastes	Apr. 8, 1998.
U402	All others	July 8, 1996.
U403	Mixed with radioactive wastes	Apr. 8, 1998.
U403	All others	July 8, 1996.
U404	Mixed with radioactive wastes	Apr. 8, 1998.
U404	All others	July 8, 1996.
U407	Mixed with radioactive wastes	Apr. 8, 1998.
U407	All others	July 8, 1996.
U409	Mixed with radioactive wastes	Apr. 8, 1998.
U409	All others	July 8, 1996.
U410	Mixed with radioactive wastes	Apr. 8, 1998.
U410	All others	July 8, 1996.

TABLE 1—EFFECTIVE DATES OF SURFACE DISPOSED WASTES (NON-SOIL AND DEBRIS) REGULATED IN THE LDRS [a]—COMPREHENSIVE LIST—Continued

Waste code	Waste category	Effective date
U411	Mixed with radioactive wastes	Apr. 8, 1998.
U411	All others	July 8, 1996.

[a] This table does not include mixed radioactive wastes (from the First, Second, and Third Third rules) which received national capacity variance until May 8, 1992. This table also does not include contaminated soil and debris wastes.
[b] The standard was revised in the Third Third Final Rule (55 FR 22520, June 1, 1990).
[c] The standard was revised in the Third Third Emergency Rule (58 FR 29860, May 24, 1993); the original effective date was August 8, 1990.
[d] The standard was revised in the Phase II Final Rule (59 FR 47982, Sept. 19, 1994); the original effective date was August 8, 1990.
[e] 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)

Restricted hazardous waste in CSD	Effective date
1. Solvent–(F001–F005) and dioxin–(F020–F023 and F026–F028) containing soil and debris from CERCLA response or RCRA corrective actions.	Nov. 8, 1990.
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).	Nov. 8, 1988.
3 All soil and debris contaminated with First Third wastes for which treatment standards are based on incineration.	Aug. 8, 1990.
4. All soil and debris contaminated with Second Third wastes for which treatment standards are based on incineration.	June 8, 1991.
5. All soil and debris contaminated with Third Third wastes or, First or Second Third ''soft hammer'' 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 D004–D011 wastes, and all soil and debris contaminated with mixed RCRA/radioactive wastes.	May 8, 1992.
6. Soil and debris contaminated with D012–D043, K141–K145, and K147–151 wastes	Dec. 19, 1994.
7. Debris (only) contaminated with F037, F038, K107–K112, K117, K118, K123–K126, K131, K132, K136, U328, U353, U359.	Dec. 19, 1994
8. Soil and debris contaminated with K156–K161, P127, P128, 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 wastes.	July 8, 1996.
9. Soil and debris contaminated with K088 wastes	Oct. 8, 1997.
10. Soil and debris contaminated with radioactive wastes mixed with K088, K156–K161, P127, P128, 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 wastes.	April 8, 1998.
11. Soil and debris contaminated with F032, F034, and F035	May 12, 1997.
12. Soil and debris contaminated with newly identified D004–D011 toxicity characteristic wastes and mineral processing wastes..	Aug. 24, 1998.
13. Soil and debris contaminated with mixed radioactive newly identified D004–D011 characteristic wastes and mineral processing wastes..	May 26, 2000.

Note: Appendix VII is provided for the convenience of the reader.

[62 FR 26025, May 12, 1997, as amended at 63 FR 28751, May 26, 1998; 65 FR 36367, June 8, 2000]

EFFECTIVE DATE NOTE: At 66 FR 27297, May 16, 2001, appendix VII to part 268 was amended by adding a wastestream to table 1 effective August 14, 2001. For the convenience of the user, the added text is set forth as follows:

APPENDIX VII TO PART 268

Waste code	Waste category	Effective date
* * *	* * *	*
U048	All	Aug. 8, 1990.

APPENDIX VIII TO PART 268—LDR EFFECTIVE DATES OF INJECTED PROHIBITED HAZARDOUS WASTES

NATIONAL CAPACITY LDR VARIANCES FOR UIC WASTES [A]

Waste code	Waste category	Effective date
F001–F005	All spent F001–F005 solvent containing less than 1 percent total F001–F005 solvent constituents.	Aug. 8, 1990.
D001 (except High TOC Ignitable Liquids Subcategory)[c].	All	Feb. 10, 1994.
D001 (High TOC Ignitable Characteristic Liquids Subcategory).	Nonwastewater	Sept. 19, 1995.
D002[b]	All	May 8, 1992.
D002[c]	All	Feb. 10, 1994.
D003 (cyanides)	All	May 8, 1992.
D003 (sulfides)	All	May 8, 1992.
D003 (explosives, reactives)	All	May 8, 1992.
D007	All	May 8, 1992.
D009	Nonwastewater	May 8, 1992.
D012	All	Sept. 19, 1995.
D013	All	Sept. 19, 1995.
D014	All	Sept. 19, 1995.
D015	All	Sept. 19, 1995.
D016	All	Sept. 19, 1995.
D017	All	Sept. 19, 1995.
D018	All, including mixed with radioactive wastes	Apr. 8, 1998.
D019	All, including mixed with radioactive wastes	Apr. 8, 1998.
D020	All, including mixed with radioactive wastes	Apr. 8, 1998.
D021	All, including mixed with radioactive wastes	Apr. 8, 1998.
D022	All, including mixed with radioactive wastes	Apr. 8, 1998.
D023	All, including mixed radioactive wastes	Apr. 8, 1998.
D024	All, including mixed radioactive wastes	Apr. 8, 1998.
D025	All, including mixed radioactive wastes	Apr. 8, 1998.
D026	All, including mixed radioactive wastes	Apr. 8, 1998.
D027	All, including mixed radioactive wastes	Apr. 8, 1998.
D028	All, including mixed radioactive wastes	Apr. 8, 1998.
D029	All, including mixed radioactive wastes	Apr. 8, 1998.
D030	All, including mixed radioactive wastes	Apr. 8, 1998.
D031	All, including mixed radioactive wastes	Apr. 8, 1998.
D032	All, including mixed radioactive wastes	Apr. 8, 1998.
D033	All, including mixed radioactive wastes	Apr. 8, 1998.
D034	All, including mixed radioactive wastes	Apr. 8, 1998.
D035	All, including mixed radioactive wastes	Apr. 8, 1998.
D036	All, including mixed radioactive wastes	Apr. 8, 1998.
D037	All, including mixed radioactive wastes	Apr. 8, 1998.
D038	All, including mixed radioactive wastes	Apr. 8, 1998.
D039	All, including mixed radioactive wastes	Apr. 8, 1998.
D040	All, including mixed radioactive wastes	Apr. 8, 1998.
D041	All, including mixed radioactive wastes	Apr. 8, 1998.
D042	All, including mixed radioactive wastes	Apr. 8, 1998.
D043	All, including mixed radioactive wastes	Apr. 8, 1998.
F007	All	June 8, 1991.
F032	All, including mixed radioactive wastes	May 12, 1999.
F034	All, including mixed radioactive wastes	May 12,1999.
F035	All, including mixed radioactive wastes	May 12, 1999.
F037	All	Nov. 8, 1992.
F038	All	Nov. 8, 1992.
F039	Wastewater	May 8, 1992.
K009	Wastewater	June 8, 1991.
K011	Nonwastewater	June 8, 1991.
K011	Wastewater	May 8, 1992.
K011	Nonwastewater	June 8, 1991.
K011	Wastewater	May 8, 1992.
K013	Nonwastewater	June 8, 1991.
K013	Wastewater	May 8, 1992.
K014	All	May 8, 1992.
K016 (dilute)	All	June 8, 1991.
K049	All	Aug. 8, 1990.
K050	All	Aug. 8, 1990.
K051	All	Aug. 8, 1990.
K052	All	Aug. 8, 1990.
K062	All	Aug. 8, 1990.
K071	All	Aug. 8, 1990.
K088	All	Jan. 8, 1997.
K104	All	Aug. 8, 1990.

NATIONAL CAPACITY LDR VARIANCES FOR UIC WASTES[A]—Continued

Waste code	Waste category	Effective date
K107	All	Nov. 8, 1992.
K108	All	Nov. 9, 1992.
K109	All	Nov. 9, 1992.
K110	All	Nov. 9, 1992.
K111	All	Nov. 9, 1992.
K112	All	Nov. 9, 1992.
K117	All	June 30, 1995.
K118	All	June 30, 1995.
K123	All	Nov. 9, 1992.
K124	All	Nov. 9, 1992.
K125	All	Nov. 9, 1992.
K126	All	Nov. 9, 1992.
K131	All	June 30, 1995.
K132	All	June 30, 1995.
K136	All	Nov. 9, 1992.
K141	All	Dec. 19, 1994.
K142	All	Dec. 19, 1994.
K143	All	Dec. 19, 1994.
K144	All	Dec. 19, 1994.
K145	All	Dec. 19, 1994.
K147	All	Dec. 19, 1994.
K148	All	Dec. 19, 1994.
K149	All	Dec. 19, 1994.
K150	All	Dec. 19, 1994.
K151	All	Dec. 19, 1994.
K156	All	July 8, 1996.
K157	All	July 8, 1996.
K158	All	July 8, 1996.
K159	All	July 8, 1996.
K160	All	July 8, 1996.
K161	All	July 8, 1996.
NA	Newly identified mineral processing wastes from titanium dioxide production and mixed radioactive/newly identified D004–D011 characteristic wastes and mineral processing wastes..	May 26, 2000.
P127	All	July 8, 1996.
P128	All	July 8, 1996.
P185	All	July 8, 1996.
P188	All	July 8, 1996.
P189	All	July 8, 1996.
P190	All	July 8, 1996.
P191	All	July 8, 1996.
P192	All	July 8, 1996.
P194	All	July 8, 1996.
P196	All	July 8, 1996.
P197	All	July 8, 1996.
P198	All	July 8, 1996.
P199	All	July 8, 1996.
P201	All	July 8, 1996.
P202	All	July 8, 1996.
P203	All	July 8, 1996.
P204	All	July 8, 1996.
P205	All	July 8, 1996.
U271	All	July 8, 1996.
U277	All	July 8, 1996.
U278	All	July 8, 1996.
U279	All	July 8, 1996.
U280	All	July 8, 1996.
U328	All	Nov. 9, 1992.
U353	All	Nov. 9, 1992.
U359	All	Nov. 9, 1992.
U364	All	July 8, 1996.
U365	All	July 8, 1996.
U366	All	July 8, 1996.
U367	All	July 8, 1996.
U372	All	July 8, 1996.
U373	All	July 8, 1996.
U375	All	July 8, 1996.
U376	All	July 8, 1996.
U377	All	July 8, 1996.
U378	All	July 8, 1996.
U379	All	July 8, 1996.

NATIONAL CAPACITY LDR VARIANCES FOR UIC WASTES [A]—Continued

Waste code	Waste category	Effective date
U381	All	July 8, 1996.
U382	All	July 8, 1996.
U383	All	July 8, 1996.
U384	All	July 8, 1996.
U385	All	July 8, 1996.
U386	All	July 8, 1996.
U387	All	July 8, 1996.
U389	All	July 8, 1996.
U390	All	July 8, 1996.
U391	All	July 8, 1996.
U392	All	July 8, 1996.
U395	All	July 8, 1996.
U396	All	July 8, 1996.
U400	All	July 8, 1996.
U401	All	July 8, 1996.
U402	All	July 8, 1996.
U403	All	July 8, 1996.
U404	All	July 8, 1996.
U407	All	July 8, 1996.
U409	All	July 8, 1996.
U410	All	July 8, 1996.
U411	All	July 8, 1996.

[a] Wastes that are deep well disposed on-site receive a six-month variance, with restrictions effective in November 1990.
[b] Deepwell injected D002 liquids with a pH less than 2 must meet the California List treatment standards on August 8, 1990.
[c] Managed in systems defined in 40 CFR 144.6(e) and 14.6(e) as Class V injection wells, that do not engage in CWA-equivalent treatment before injection.
NOTE: This table is provided for the convenience of the reader.
[62 FR 26037, May 12, 1997, as amended at 63 FR 28752, May 26, 1998]

APPENDIX IX TO PART 268—EXTRACTION PROCEDURE (EP) TOXICITY TEST METHOD AND STRUCTURAL INTEGRITY TEST (METHOD 1310)

NOTE: The EP (Method 1310) is published in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication SW–846, as incorporated by reference in § 260.11 of this chapter.

[58 FR 46051, Aug. 31, 1993]

APPENDIX X TO PART 268 [RESERVED]

APPENDIX XI TO PART 268—METAL BEARING WASTES PROHIBITED FROM DILUTION IN A COMBUSTION UNIT ACCORDING TO 40 CFR 268.3(C) [1]

Waste code	Waste description
D004	Toxicity Characteristic for Arsenic.
D005	Toxicity Characteristic for Barium.
D006	Toxicity Characteristic for Cadmium.
D007	Toxicity Characteristic for Chromium.
D008	Toxicity Characteristic for Lead.
D009	Toxicity Characteristic for Mercury.
D010	Toxicity Characteristic for Selenium.
D011	Toxicity Characteristic for Silver.
F006	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/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.
F007	Spent cyanide plating bath solutions from electroplating operations.
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.
F010	Quenching bath residues from oil baths from metal treating operations where cyanides are used in the process.

[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.

Waste code	Waste description
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.
F012	Quenching waste water treatment sludges from metal heat treating operations where cyanides are used in the process.
F019	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.
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.
K003	Wastewater treatment sludge from the production of molybdate orange pigments.
K004	Wastewater treatment sludge from the production of zinc yellow pigments.
K005	Wastewater treatment sludge from the production of chrome green pigments.
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).
K007	Wastewater treatment sludge from the production of iron blue pigments.
K008	Oven residue from the production of chrome oxide green pigments.
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.
K069	Emission control dust/sludge from secondary lead smelting.
K071	Brine purification muds from the mercury cell processes in chlorine production, where separately prepurified brine is not used.
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.
K106	Sludges from the mercury cell processes for making chlorine.
P010	Arsenic acid H_3 AsO_4
P011	Arsenic oxide As_2 O_5
P012	Arsenic trioxide
P013	Barium cyanide
P015	Beryllium
P029	Copper cyanide Cu(CN)
P074	Nickel cyanide $Ni(CN)_2$
P087	Osmium tetroxide
P099	Potassium silver cyanide
P104	Silver cyanide
P113	Thallic oxide
P114	Thallium (I) selenite
P115	Thallium (I) sulfate
P119	Ammonium vanadate
P120	Vanadium oxide V_2 O_5
P121	Zinc cyanide.
U032	Calcium chromate.
U145	Lead phosphate.
U151	Mercury.
U204	Selenious acid.
U205	Selenium disulfide.
U216	Thallium (I) chloride.
U217	Thallium (I) nitrate.

[61 FR 15658, Apr. 8, 1996]

PART 270—EPA ADMINISTERED PERMIT PROGRAMS: THE HAZARDOUS WASTE PERMIT PROGRAM

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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.

Subpart A—General Information

§ 270.1 Purpose and scope of these regulations.

(a) *Coverage.* (1) These permit regulations establish provisions for the Hazardous Waste Permit Program under Subtitle C of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (RCRA), (Pub. L. 94–580, as amended by Pub. L. 95–609 and by Pub. L. 96–482; 42 U.S.C. 6091 et seq.). They apply to EPA and to approved States to the extent provided in part 271.

(2) The regulations in this part cover basic EPA permitting requirements, such as application requirements, standard permit conditions, and monitoring and reporting requirements. These regulations are part of a regulatory scheme implementing RCRA set forth in different parts of the Code of Federal Regulations. The following chart indicates where the regulations implementing RCRA appear in the Code of Federal Regulations.

Section of RCRA	Coverage	Final regulation
Subtitle C	Overview and definitions	40 CFR part 260
3001	Indentification and listing of hazardous waste.	40 CFR part 261
3002	Generators of hazardous waste.	40 CFR part 262
3003	Transporters of hazardous waste.	40 CFR part 263
3004	Standards for HWM facilities.	40 CFR parts 264, 265, 266, and 267
3005	Permit requirements for HWM facilities.	40 CFR parts 270 and 124
3006	Guidelines for State programs.	40 CFR part 271
3010	Preliminary notification of HWM activity.	(public notice) 45 *FR* 12746 February 26, 1980

(3) *Technical regulations.* The RCRA permit program has separate additional Regulations that contain technical requirements. These separate regulations are used by permit issuing authorities to determine what requirements must be placed in permits if they are issued. These separate regulations are located in 40 CFR parts 264, 266, and 267.

(b) *Overview of the RCRA Permit Program.* Not later than 90 days after the promulgation or revision of regulations in 40 CFR part 261 (identifying and listing hazardous wastes) generators and transporters of hazardous waste, and owners or operators of hazardous waste treatment, storage, or disposal facilities may be required to file a notification of that activity under section 3010. Six months after the initial promulgation of the part 261 regulations, treatment, storage, or disposal of hazardous waste by any person who has not applied for or received a RCRA permit is prohibited. A RCRA permit application consists of two parts, part A (see § 270.13) and part B (see § 270.14 and applicable sections in §§ 270.15 through 270.29). For ''existing HWM facilities,'' the requirement to submit an application is satisfied by submitting only part A of the permit application until the date the Director sets for submitting part B of the application. (Part A consists of Forms 1 and 3 of the Consolidated Permit Application Forms.) Timely submission of both notification under section 3010 and part A qualifies

owners and operators of existing HWM facilities (who are required to have a permit) for interim status under section 3005(e) of RCRA. Facility owners and operators with interim status are treated as having been issued a permit until EPA or a State with interim authorization for Phase II or final authorization under part 271 makes a final determination on the permit application. Facility owners and operators with interim status must comply with interim status standards set forth at 40 CFR part 265 and 266 or with the analagous 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.

(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)(5) 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 it 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), 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) Thermostats 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 an RCRA permit for treatment or containment activities taken during immediate response to any of the following situations:

(A) A discharge of a hazardous waste;

(B) An imminent and substantial threat of a discharge of hazardous waste;

(C) A discharge of a material which, when discharged, becomes a hazardous waste.

(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 for one or more units at a facility without simultaneously issuing or denying a permit to all of the units at the facility. The interim status of any unit for which a permit has not been issued or denied is not affected by the issuance or denial of a permit to any other unit at the facility.

(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 § 264.228, § 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.

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 30113, June 30, 1983; 51 FR 10176, Mar. 24, 1986; 52 FR 45798, Dec. 1, 1987; 53 FR 27165, July 19, 1988; 54 FR 9607, Mar. 7, 1989; 56 FR 32692, July 17, 1991; 60 FR 25542, May 11, 1995; 62 FR 6656, Feb. 12, 1996; 63 FR 56735, Oct. 22, 1998; 64 FR 36488, July 6, 1999; 64 FR 37638, July 12, 1999]

§ 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). A CAMU shall only be used for the management of remediation wastes pursuant to implementing such corrective action requirements at the facility.

CWA means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act amendments of 1972) Pub. L. 92–500, as amended by Pub. L. 92–217 and Pub. L. 95–576; 33 U.S.C. 1251 *et seq*.

Director means the Regional Administrator or the State Director, as the context requires, or an authorized representative. When there is no approved State program, and there is an EPA administered program, Director means the Regional Administrator. When there is an approved State program, Director normally means the State Director. In some circumstances, however, EPA retains the authority to take certain actions even when there is an approved State program. In such cases, the term Director means the Regional Administrator and not the State Director.

Disposal means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any hazardous waste into or on any land or water so that such hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground water.

Disposal facility means a facility or part of a facility at which hazardous waste is intentionally placed into or on the land or water, and at which hazardous waste will remain after closure. 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 § 124.6 indicating the Director's tentative decision to issue or deny, modify, revoke and reissue, terminate, or reissue a permit. A notice of intent to terminate a permit, and a notice of intent to deny a permit, as discussed in § 124.5, are types of draft permits. A denial of a request for modification, revocation and reissuance, or termination, as discussed in § 124.5 is not a ''draft permit.'' A proposed permit is not a draft permit.

Elementary neutralization unit means a device which:

(a) Is used for neutralizing wastes 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 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. Permit includes permit by rule (§ 270.60), and emergency permit (§ 270.61). Permit does not include RCRA interim status (subpart G of this part), or any permit which has not yet been the subject of final agency action, such as a draft permit or a proposed permit.

Permit-by-rule means a provision of these regulations stating that a facility or activity is deemed to have a RCRA permit if it meets the requirements of the provision.

Person means an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof.

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 unsed in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a State or municipality. This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

RCRA means the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act of 1976 (Pub. L. 94–580, as amended by Pub. L. 95–609 and Pub. L. 96–482, 42 U.S.C. 6901 *et seq.*)

Regional Administrator means the Regional Administrator of the appropriate Regional Office of the Environmental Protection Agency or the authorized representative of the Regional Administrator.

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.

SDWA means the Safe Drinking Water Act (Pub. L. 95–523, as amended by Pub. L. 95–1900; 42 U.S.C. 3001 *et seq.*).

Site means the land or water area where any facility or activity is physically located or conducted, including adjacent land used in connection with the facility or activity.

State means any of the 50 States, the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, and the Commonwealth of the Northern Mariana Islands.

State Director means the chief administrative officer of any State agency operating an approved program, or the delegated representative of the State Director. If responsibility is divided among two or more State agencies, State Director means the chief administrative officer of the State agency authorized to perform the particular procedure or function to which reference is made.

State/EPA Agreement means an agreement between the Regional Administrator and the State which coordinates EPA and State activities, responsibilities and programs.

Storage means the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed, or stored elsewhere.

Transfer facility means any transportation-related facility including loading docks, parking areas, storage areas and other similar areas where shipments of hazardous waste are held during the normal course of transportation.

Transporter means a person engaged in the off-site transportation of hazardous waste by air, rail, highway or water.

Treatment means any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such wastes, or so as to recover energy or material resources from the waste, or so as to render such waste non-hazardous, or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume.

UIC means the Underground Injection Control Program under part C of the Safe Drinking Water Act, including an approved program.

Underground injection means a well injection.

Underground source of drinking water (USDW) means an aquifer or its portion:

(a)(1) Which supplies any public water system; or

(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 treats or stores a wastewater treatment sludge which is a hazardous waste as defined in § 261.3 of this chapter; and

(c) Meets the definition of tank or tank system in § 260.10 of this chapter.

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 30113, June 30, 1983; 53 FR 34087, Sept. 2, 1988; 53 FR 37935, Sept. 28, 1988; 58 FR 8685, Feb. 16, 1993; 60 FR 33914, June 29, 1995; 60 FR 63433, Dec. 11, 1995; 63 FR 65941, Nov. 30, 1998]

§ 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 concurs with the certification (or the Secretary of Commerce overrides the State's nonconcurrence).

(e) *The Fish and Wildlife Coordination Act*. 16 U.S.C. 661 *et seq*. requires that the Regional Administrator, before issuing a permit proposing or authorizing the impoundment (with certain exemptions), diversion, or other control or modification of any body of water, consult with the appropriate State agency exercising jurisdiction over wildlife resources to conserve those resources.

(f) *Executive orders*. [Reserved]

(Clean Water Act (33 U.S.C. 1251 et seq.), Safe Drinking Water Act (42 U.S.C. 300f et seq.), Clean Air Act (42 U.S.C. 7401 et seq.), Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.))

[48 FR 14228, Apr 1, 1983, as amended at 48 FR 39622, Sept. 1, 1983]

§ 270.4 Effect of a permit.

(a) Compliance with a RCRA permit during its term constitutes compliance, for purposes of enforcement, with subtitle C of RCRA except for those requirements not included in the permit which:

(1) Become effective by statute;

(2) Are promulgated under part 268 of this chapter restricting the placement of hazardous wastes in or on the land;

(3) 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

(4) Are promulgated under subparts AA, BB, or CC of part 265 of this chapter limiting air emissions.

(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.

[48 FR 14228, Apr. 1, 1983, as amended at 57 FR 3495, Jan. 29, 1992; 59 FR 62952, Dec. 6, 1994]

§ 270.5 Noncompliance and program reporting by the Director.

The Director shall prepare quarterly and annual reports as detailed below. When the State is the permit-issuing authority, the State Director shall submit any reports required under this section to the Regional Administrator. When EPA is the permit-issuing authority, the Regional Administrator shall submit any report required under this section to EPA Headquarters. For purposes of this section only, RCRA permittees shall include RCRA interim status facilities, when appropriate.

(a) *Quarterly reports.* The Director shall submit quarterly narrative reports for major facilities as follows:

(1) *Format.* The report shall use the following format:

(i) Information on noncompliance for each facility;

(ii) Alphabetize by permittee name. When two or more permittees have the same name, the lowest permit number shall be entered first; 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.

(2) *Instances of noncompliance to be reported.* Any instances of noncompliance within the following categories shall be reported in successive reports until the noncompliance is reported as resolved. Once noncompliance is reported as resolved it need not appear in subsequent reports.

(i) *Failure to complete construction elements.* When the permittee has failed to complete, by the date specified in the permit, an element of a compliance schedule involving either planning for construction (for example, award of a contract, preliminary plans), or a construction step (for example, begin construction, attain operation level); and the permittee has not returned to compliance by accomplishing the required element of the schedule within 30 days from the date a compliance schedule report is due under the permit.

(ii) *Modifications to schedules of compliance.* When a schedule of compliance in the permit has been modified under § 270.41 or § 270.42 because of the permittee's noncompliance.

(iii) *Failure to complete or provide compliance schedule or monitoring reports.* When the permittee has failed to complete or provide a report required in a permit compliance schedule (for example, progress report or notice of noncompliance or compliance) or a monitoring report; and the permittee has not submitted the complete report

within 30 days from the date it is due under the permit for compliance schedules, or from the date specified in the permit for monitoring reports.

(iv) *Deficient reports.* When the required reports provided by the permittee are so deficient as to cause misunderstanding by the Director and thus impede the review of the status of compliance.

(v) *Noncompliance with other permit requirements.* Noncompliance shall be reported in the following circumstances:

(A) Whenever the permittee has violated a permit requirement (other than reported under paragraph (a)(2)(i) or (ii) of this section), and has not returned to compliance within 45 days from the date reporting of 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

[Date for completion of reports]

January, February, and March ...	[1] May 31
April, May, and June	[1] August 31
July, August, and September	[1] November 30
October, November, and December.	[1] February 28

[1] Reports must be made available to the public for inspection and copying on this date.

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 30113, June 30, 1983]

§ 270.6 References.

(a) When used in part 270 of this chapter, the following publications are incorporated by reference: (See 40 CFR 260.11 References)

(b) The references listed in paragraph (a) of this section are also available for inspection at the Office of the Federal Register, 1100 L Street, NW., Washington, DC 20408. These incorporations by reference were approved by the Director of the Federal Register. These materials are incorporated as they exist on the date of approval and a notice of any change in these materials

will be published in the FEDERAL REGISTER.

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 30113, June 30, 1983; 52 FR 8073, Mar. 16, 1987; 58 FR 46051, Aug. 31, 1993]

Subpart B—Permit Application

§ 270.10 General application requirements.

(a) *Permit application.* Any person who is required to have a permit (including new applicants and permittees with expiring permits) shall complete, sign, and submit an application to the Director as described in this section and §§ 270.70 through 270.73. Persons currently authorized with interim status shall apply for permits when required by the Director. Persons covered by RCRA permits by rule (§ 270.60), need not apply. Procedures for applications, issuance and administration of emergency permits are found exclusively in § 270.61. Procedures for application, issuance and administration of research, development, and demonstration permits are found exclusively in § 270.65.

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

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

(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 dispose 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.

[48 FR 14228, Apr. 1, 1983; 48 FR 30114, June 30, 1983, as amended at 50 FR 28751, July 15, 1985; 51 FR 10176, Mar. 24, 1986; 52 FR 45799, Dec. 1, 1987; 54 FR 9607, Mar. 7, 1989; 60 FR 33914, June 29, 1995]

§ 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 senior executive officer having responsibility for the overall operations of a

principal geographic unit of the agency (e.g., Regional Administrators of EPA).

(b) *Reports*. All reports required by permits and other information requested by the Director shall be signed by a person described in paragraph (a) of this section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described in paragraph (a) of this section;

(2) The authorization specifies either an individual or a position having responsibility for overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

(3) The written authorization is submitted to the Director.

(c) *Changes to authorization*. If an authorization under paragraph (b) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

(d)(1) Any person signing a document under paragraph (a) or (b) of this must make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(2) For remedial action plans (RAPs) under subpart H of this part, if the operator certifies according to paragraph (d)(1) of this section, then the owner may choose to make the following certification instead of the certification in paragraph (d)(1) of this section:

Based on my knowledge of the conditions of the property described in the RAP and my inquiry of the person or persons who manage the system referenced in the operator's certification, or those persons directly responsible for gathering the information, the information submitted is, upon information and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(Clean Water Act (33 U.S.C. 1251 *et seq.*), Safe Drinking Water Act (42 U.S.C. 300f *et seq.*), Clean Air Act (42 U.S.C. 7401 *et seq.*), Resource Conservation and Recovery Act (42 U.S.C. 6901 *et seq.*))

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 39622, Sept. 1, 1983; 63 FR 65941, Nov. 30, 1998]

§ 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 Sancturies 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.

[48 FR 14228, Apr. 1, 1983, as amended at 57 FR 37281, Aug. 18, 1992]

§ 270.14 Contents of part B: General requirements.

(a) Part B of the permit application consists of the general information requirements of this section, and the specific information requirements in §§ 270.14 through 270.29 applicable to the facility. The part B information requirements presented in §§ 270.14 through 270.29 reflect the standards promulgated in 40 CFR part 264. These information requirements are necessary in order for EPA to determine compliance with the part 264 standards. If owners and operators of HWM facilities can demonstrate that the information prescribed in part B can not be provided to the extent required, the Director may make allowance for submission of such information on a case-by-case basis. Information required in part B shall be submitted to the Director and signed in accordance with requirements in § 270.11. Certain technical data, such as design drawings and specifications, and engineering studies shall be certified by a registered professional engineer. 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.

(5) A copy of the general inspection schedule required by § 264.15(b) of this part. Include where applicable, as part of the inspection schedule, specific requirements in §§ 264.174, 264.193(i), 264.195, 264.226, 264.254, 264.273, 264.303, 264.602, 264.1033, 264.1052, 264.1053, 264.1058, 264.1084, 264.1085, 264.1086, and 264.1088 of this part.

(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, or

(B) If faults (to include lineations) which have had displacement in Holocene time are present within 3,000 feet

of a facility, no faults pass with 200 feet of the portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted, based on data from a comprehensive geologic analysis of the site. Unless a site analysis is otherwise conclusive concerning the absence of faults within 200 feet of such portions of the facility data shall be obtained from a subsurface exploration (trenching) of the area within a distance no less than 200 feet from portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted. Such trenching shall be performed in a direction that is perpendicular to known faults (which have had displacement in Holocene time) passing within 3,000 feet of the portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted. Such investigation shall document with supporting maps and other analyses, the location of faults found.

[*Comment:* The Guidance Manual for the Location Standards provides greater detail on the content of each type of seismic investigation and the appropriate conditions under which each approach or a combination of approaches would be used.]

(iii) Owners and operators of all facilities shall provide an identification of whether the facility is located within a 100-year floodplain. This identification must indicate the source of data for such determination and include a copy of the relevant Federal Insurance Administration (FIA) flood map, if used, or the calculations and maps used where an FIA map is not available. Information shall also be provided identifying the 100-year flood level and any other special flooding factors (e.g., wave action) which must be considered in designing, constructing, operating, or maintaining the facility to withstand washout from a 100-year flood.

[*Comment:* Where maps for the National Flood Insurance Program produced by the Federal Insurance Administration (FIA) of the Federal Emergency Management Agency are available, they will normally be determinative of whether a facility is located within or outside of the 100-year floodplain. However, where the FIA map excludes an area (usually areas of the floodplain less than 200 feet in width), these areas must be considered and a determination made as to whether they are in the 100-year floodplain. Where FIA maps are not available for a proposed facility location, the owner or operator must use equivalent mapping techniques to determine whether the facility is within the 100-year floodplain, and if so located, what the 100-year flood elevation would be.]

(iv) Owners and operators of facilities located in the 100-year floodplain must provide the following information:

(A) Engineering analysis to indicate the various hydrodynamic and hydrostatic forces expected to result at the site as consequence of a 100-year flood.

(B) Structural or other engineering studies showing the design of operational units (e.g., tanks, incinerators) and flood protection devices (e.g., floodwalls, dikes) at the facility and how these will prevent washout.

(C) If applicable, and in lieu of paragraphs (b)(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:

(*1*) Timing of such movement relative to flood levels, including estimated time to move the waste, to show that such movement can be completed before floodwaters reach the facility.

(*2*) A description of the location(s) to which the waste will be moved and demonstration that those facilities will be eligible to receive hazardous waste in accordance with the regulations under parts 270, 271, 124, and 264 through 266 of this chapter.

(*3*) The planned procedures, equipment, and personnel to be used and the means to ensure that such resources will be available in time for use.

(*4*) The potential for accidental discharges of the waste during movement.

(v) Existing facilities NOT in compliance with § 264.18(b) shall provide a plan showing how the facility will be brought into compliance and a schedule for compliance.

(12) An outline of both the introductory and continuing training programs by owners or operators to prepare persons to operate or maintain the HWM facility in a safe manner as required to demonstrate compliance with § 264.16. A brief description of how training will be designed to meet actual job tasks in accordance with requirements in § 264.16(a)(3).

(13) A copy of the closure plan and, where applicable, the post-closure plan required by §§ 264.112, 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(a) and, if applicable, § 264.147(b), that the owner or operator plans to have in effect before initial receipt of hazardous waste for treatment, storage, or disposal. A request for a variance in the amount of required coverage, for a new or existing facility, may be submitted as specified in § 264.147(c).

(18) Where appropriate, proof of coverage by a State financial mechanism in compliance with § 264.149 or § 264.150.

(19) A topographic map showing a distance of 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 intermittant streams.

(iv) Surrounding land uses (residential, commercial, agricultural, recreational).

(v) A wind rose (i.e., prevailing windspeed 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 uner § 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 ground-water 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 ground-water flow direction and rate, and the basis for such identification (*i.e.*, the information obtained from hydrogeologic investigations of the facility area).

(3) On the topographic map required under paragraph (b)(19) of this section, a delineation of the waste management area, the property boundary, the proposed ''point of compliance'' as defined under § 264.95, the proposed location of ground-water monitoring wells as required under § 264.97, and, to the extent possible, the information required in paragraph (c)(2) of this section.

(4) A description of any plume of contamination that has entered the ground water from a regulated unit at the time that the application was submitted that:

(i) Delineates the extent of the plume on the topographic map required under paragraph (b)(19) of this section;

(ii) Identifies the concentration of each appendix 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 ground water monitoring program to be implemented to meet the requirements of § 264.97.

(6) If the presence of hazardous constituents has *not* been detected in the ground water at the time of permit application, the owner or operator must submit sufficient information, supporting data, and analyses to establish a detection monitoring program which meets the requirements of § 264.98. This submission must address the following items specified under § 264.98:

(i) A proposed list of indicator parameters, waste constituents, or reaction products that can provide a reliable indication of the presence of hazardous constituents in the ground water;

(ii) A proposed ground-water monitoring system;

(iii) Background values for each proposed monitoring parameter or constituent, or procedures to calculate such values; and

(iv) A description of proposed sampling, analysis and statistical comparison procedures to be utilized in evaluating ground-water monitoring data.

(7) If the presence of hazardous constituents has been detected in the ground water at the point of compliance at the time of 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 ground water, including concentrations of hazardous constituents;

(iii) A list of hazardous constituents for which compliance monitoring will be undertaken in accordance with §§ 264.97 and 264.99;

(iv) Proposed concentration limits for each hazardous constituent, based on the criteria set forth in § 264.94(a), including a justification for establishing any alternate concentration limits;

(v) Detailed plans and an engineering report describing the proposed groundwater monitoring system, in accordance with the requirements of § 264.97; and

(vi) A description of proposed sampling, analysis and statistical comparison procedures to be utilized in evaluating ground-water monitoring data.

(8) If hazardous constituents have been measured in the ground water which exceed the concentration limits established under § 264.94 Table 1, or if ground water monitoring conducted at the time of permit application under §§ 265.90 through 265.94 at the waste boundary indicates the presence of hazardous constituents from the facility in ground water over background concentrations, the owner or operator must submit sufficient information, supporting data, and analyses to establish a corrective action program which meets the requirements of § 264.100. However, an owner or operator is not required to submit information to establish a corrective action program if he demonstrates to the Regional Administrator that alternate concentration limits will protect human health and the environment after considering the criteria listed in § 264.94(b). An owner or operator who is not required to establish a corrective action program for this reason must instead submit sufficient information to establish a compliance monitoring program which meets the requirements of § 264.99 and paragraph (c)(6) of this section. To demonstrate compliance with § 264.100, the owner or operator must address, at a minimum, the following items:

(i) A characterization of the contaminated ground water, including concentrations of hazardous constituents;

(ii) The concentration limit for each hazardous constituent found in the ground water as set forth in § 264.94;

(iii) Detailed plans and an engineering report describing the corrective action to be taken; and

(iv) A description of how the groundwater 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.

[48 FR 14228, Apr. 1, 1983; 48 FR 30114, June 30, 1983]

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 on GPO Access.

§ 270.15 Specific part B information requirements for containers.

Except as otherwise provided in § 264.170, owners or operators of facilities that store containers of hazardous waste must provide the following additional information:

(a) A description of the containment system to demonstrate compliance with § 264.175. Show at least the following:

(1) Basic design parameters, dimensions, and materials of construction.

(2) How the design promotes drainage or how containers are kept from contact with standing liquids in the containment system.

(3) Capacity of the containment system relative to the number and volume of containers to be stored.

(4) Provisions for preventing or managing run-on.

(5) How accumulated liquids can be analyzed and removed to prevent overflow.

(b) For storage areas that store containers holding wastes that do not contain free liquids, a demonstration of compliance with § 264.175(c), including:

(1) Test procedures and results or other documentation or information to show that the wastes do not contain free liquids; and

(2) A description of how the storage area is designed or operated to drain and remove liquids or how containers are kept from contact with standing liquids.

(c) Sketches, drawings, or data demonstrating compliance with § 264.176 (location of buffer zone and containers holding ignitable or reactive wastes) and § 264.177(c) (location of incompatible wastes), where applicable.

(d) Where incompatible wastes are stored or otherwise managed in containers, a description of the procedures used to ensure compliance with §§ 264.177 (a) and (b), and 264.17 (b) and (c).

(e) Information on air emission control equipment as required in § 270.27.

[48 FR 14228, Apr. 1, 1983; 48 FR 30114, June 30, 1983; 59 FR 62952, Dec. 6, 1994]

§ 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 an independent, qualified, registered 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;

(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 §§ 264.198 and 264.199.

(k) Information on air emission control equipment as required in § 270.27.

[51 FR 25486, July 14, 1986; 51 FR 29431, Aug. 15, 1986; 59 FR 62952, Dec. 6, 1994]

§ 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 is or 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:

(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.

(j) Information on air emission control equipment as required in § 270.27.

[48 FR 14228, Apr. 1, 1983, as amended at 50 FR 2006, Jan. 14, 1985; 50 FR 28752, July 15, 1985; 57 FR 3495, Jan. 29, 1992; 59 FR 62952, Dec. 6, 1994]

§ 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(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 place in a waste pile, an explanation of how § 264.257 will be complied with;

(h) A description of how hazardous waste residues and contaminated materials will be removed from the waste pile at closure, as required under § 264.258(a). For any waste not to be removed from the waste pile upon closure, the owner or operator must submit detailed plans and an engineering report describing how § 264.310 (a) and (b) will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan submitted under § 270.14(b)(13).

(i) A waste management plan for EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, and FO27 describing how a waste pile that is not enclosed (as defined in § 264.250(c)) is or will be designed, constructed, operated, and maintained to meet the requirements of § 264.259. This submission must address the following items as specified in § 264.259:

(1) The volume, physical, and chemical characteristics of the wastes to be disposed in the waste pile, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

[48 FR 14228, Apr. 1, 1983, as amended at 50 FR 2006, Jan. 14, 1985; 50 FR 28752, July 15, 1985; 57 FR 3496, Jan. 29, 1992]

§ 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 analytical techniques specified in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication SW–846, as incorporated by reference in § 260.11 of this chapter and § 270.6, or their equivalent.

(iv) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by the analytical methods specified in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication SW–846, as incorporated by reference in § 260.11 of this chapter and § 270.6.

(v) A quantification of those hazardous constituents in the waste which may be designated as POHC's based on data submitted from other trial or operational burns which demonstrate compliance with the performance standards in § 264.343 of this chapter.

(2) A detailed engineering description of the incinerator, including:

(i) Manufacturer's name and model number of incinerator.

(ii) Type of incinerator.

(iii) Linear dimension of incinerator unit including cross sectional area of combustion chamber.

(iv) Description of auxiliary fuel system (type/feed).

(v) Capacity of prime mover.

(vi) Description of automatic waste feed cutoff system(s).

(vii) Stack gas monitoring and pollution control monitoring system.

(viii) Nozzle and burner design.

(ix) Construction materials.

(x) Location and description of temperature, pressure, and flow indicating devices and control devices.

(3) A description and analysis of the waste to be burned compared with the waste for which data from operational or trial burns are provided to support the contention that a trial burn is not needed. The data should include those items listed in paragraph (c)(1) of this section. This analysis should specify the POHC's which the applicant has identified in the waste for which a permit is sought, and any differences from the POHC's in the waste for which burn data are provided.

(4) The design and operating conditions of the incinerator unit to be used, compared with that for which comparative burn data are available.

(5) A description of the results submitted from any previously conducted trial burn(s) including:

(i) Sampling and analysis techniques used to calculate performance standards in § 264.343 of this chapter,

(ii) Methods and results of monitoring temperatures, waste feed rates, carbon monoxide, and an appropriate indicator of combustion gas velocity (including a statement concerning the precision and accuracy of this measurement),

(6) The expected incinerator operation information to demonstrate compliance with §§ 264.343 and 264.345 of this chapter including:

(i) Expected carbon monoxide (CO) level in the stack exhaust gas.

(ii) Waste feed rate.

(iii) Combustion zone temperature.

(iv) Indication of combustion gas velocity.

(v) Expected stack gas volume, flow rate, and temperature.

(vi) Computed residence time for waste in the combustion zone.

(vii) Expected hydrochloric acid removal efficiency.

(viii) Expected fugitive emissions and their control procedures.

(ix) Proposed waste feed cut-off limits based on the identified significant operating parameters.

(7) Such supplemental information as the Director finds necessary to achieve the purposes of this paragraph.

(8) Waste analysis data, including that submitted in paragraph (c)(1) of this section, sufficient to allow the Director to specify as permit Principal Organic Hazardous Constituents (permit POHC's) those constituents for which destruction and removal efficiencies will be required.

(d) The Director shall approve a permit application without a trial burn if he finds that:

(1) The wastes are sufficiently similar; and

(2) The incinerator units are sufficiently similar, and the data from other trial burns are adequate to specify (under § 264.345 of this chapter) operating conditions that will ensure that the performance standards in § 264.343 of this chapter will be met by the incinerator.

(e) When an owner or operator 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), 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) and 270.32(b)(2).

[48 FR 14228, Apr. 1, 1983, as amended at 58 FR 46051, Aug. 31, 1993; 64 FR 53076, Sept. 30, 1999; 67 FR 6816, Feb. 13, 2002]

§ 270.20 Specific part B information requirements for land treatment facilities.

Except as otherwise provided in § 264.1, owners and operators of facilities that use land treatment to dispose of hazardous waste must provide the following additional information:

(a) A description of plans to conduct a treatment demonstration as required under § 264.272. The description must include the following information;

(1) The wastes for which the demonstration will be made and the potential hazardous constituents in the waste;

(2) The data sources to be used to make the demonstration (*e.g.*, literature, laboratory data, field data, or operating data);

(3) Any specific laboratory or field test that will be conducted, including:

(i) The type of test (*e.g.*, column leaching, degradation);

(ii) Materials and methods, including analytical procedures;

(iii) Expected time for completion;

(iv) Characteristics of the unit that will be simulated in the demonstration, including treatment zone characteristics, climatic conditions, and operating practices.

(b) A description of a land treatment program, as required under § 264.271. This information must be submitted with the plans for the treatment demonstration, and updated following the treatment demonstration. The land treatment program must address the following items:

(1) The wastes to be land treated;

(2) Design measures and operating practices necessary to maximize treatment in accordance with § 264.273(a) including:

(i) Waste application method and rate;

(ii) Measures to control soil pH;

(iii) Enhancement of microbial or chemical reactions;

(iv) Control of moisture content;

(3) Provisions for unsaturated zone monitoring, including:

(i) Sampling equipment, procedures, and frequency;

(ii) Procedures for selecting sampling locations;

(iii) Analytical procedures;

(iv) Chain of custody control;

(v) Procedures for establishing background values;

(vi) Statistical methods for interpreting results;

(vii) The justification for any hazardous constituents recommended for selection as principal hazardous constituents, in accordance with the criteria for such selection in § 264.278(a);

(4) A list of hazardous constituents reasonably expected to be in, or derived from, the wastes to be land treated based on waste analysis performed pursuant to § 264.13;

(5) The proposed dimensions of the treatment zone;

(c) A description of how the unit is or will be designed, constructed, operated, and maintained in order to meet the requirements of § 264.273. This submission must address the following items:

(1) Control of run-on;

(2) Collection and control of run-off;

(3) Minimization of run-off of hazardous constituents from the treatment zone;

(4) Management of collection and holding facilities associated with run-on and run-off control systems;

(5) Periodic inspection of the unit. This information should be included in the inspection plan submitted under § 270.14(b)(5);

(6) Control of wind dispersal of particulate matter, if applicable;

(d) If food-chain crops are to be grown in or on the treatment zone of the land treatment unit, a description of how the demonstration required

under § 264.276(a) will be conducted including:

(1) Characteristics of the food-chain crop for which the demonstration will be made.

(2) Characteristics of the waste, treatment zone, and waste application method and rate to be used in the demonstration;

(3) Procedures for crop growth, sample collection, sample analysis, and data evaluation;

(4) Characteristics of the comparison crop including the location and conditions under which it was or will be grown;

(e) If food-chain crops are to be grown, and cadmium is present in the land-treated waste, a description of how the requirements of § 264.276(b) will be complied with;

(f) A description of the vegetative cover to be applied to closed portions of the facility, and a plan for maintaining such cover during the post-closure care period, as required under §§ 264.280(a)(8) and 264.280(c)(2). This information should be included in the closure plan and, where applicable, the post-closure care plan submitted under § 270.14(b)(13);

(g) If ignitable or reactive wastes will be placed in or on the treatment zone, an explanation of how the requirements of § 264.281 will be complied with;

(h) If incompatible wastes, or incompatible wastes and materials, will be placed in or on the same treatment zone, an explanation of how § 264.282 will be complied with.

(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 attentuative 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.

[48 FR 14228, Apr. 1, 1983; 48 FR 30114, June 30, 1983, as amended at 50 FR 2006, Jan. 14, 1985]

§ 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 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;

(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 § 264.302 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.

[48 FR 14228, Apr. 1, 1983; 48 FR 30114, June 30, 1983, as amended at 50 FR 2006, Jan. 14, 1985; 50 FR 28752, July 15, 1985; 57 FR 3496, Jan. 29, 1992]

§ 270.22 Specific part B information requirements for boilers and industrial furnaces burning hazardous waste.

When an owner or operator of a cement or lightweight aggregate kiln 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), the requirements of this section do not apply, except those provisions the Director determines 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. 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) and 270.32(b)(2).

(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*—(i) *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 analytical techniques specified in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (incorporated by reference, see § 260.11).

(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 Cl_2*. 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 (Cl_2) 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 boiler or industrial furnace shall submit information supporting conformance with the standards for direct transfer provided by § 266.111 of this chapter.

(f) *Residues.* Owners and operators that claim that their residues are excluded from regulation under the provisions of § 266.112 of this chapter must submit information adequate to demonstrate conformance with those provisions.

[56 FR 7235, Feb. 21, 1991; 56 FR 32691, July 17, 1991, as amended at 64 FR 53077, Sept. 30, 1999; 67 FR 6816, Feb. 13, 2002]

§ 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.

§ 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.

(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 § 260.11) or other engineering texts acceptable to the Regional Administrator that present basic control device design 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.

[55 FR 25518, June 21, 1990, as amended at 56 FR 19290, Apr. 26, 1991]

§ 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).

(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 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. The Regional Administrator may request further documentation before deciding if compliance has been demonstrated.

(e) Documentation to demonstrate compliance with § 264.1060 shall 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 § 264.1033(j).

(3) A design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of ''ATPI Course 415: Control of Gaseous Emissions'' (incorporated by reference as specified in § 260.11) or other engineering texts acceptable to the Regional Administrator

that present basic control device design 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 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.

[55 FR 25518, June 21, 1990, as amended at 56 FR 19290, Apr. 26, 1991]

§ 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 an independent qualified, registered 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).

[55 FR 50489, Dec. 6, 1990. Redesignated and amended at 56 FR 30198, July 1, 1991]

§ 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 applicable design specifications as listed in 40 CFR 264.1084(e)(1) or 40 CFR 264.1084(f)(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(e)(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.

[61 FR 59996, Nov. 25, 1996]

§ 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.)

(l) *Reporting requirements*—(1) *Planned changes.* The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility.

(2) *Anticipated noncompliance.* The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. For a new facility, the permittee may not treat, store, or dispose of hazardous waste; and for a facility being modified, the permittee may not treat, store, or dispose of hazardous waste in the modified portion of the facility 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 (l)(2)(i) of this section, the permittee has not received notice from the Director of his or her intent to inspect, prior inspection is waived and the permittee may commence treatment, storage, or disposal of hazardous waste.

(3) *Transfers.* This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under RCRA. (See § 270.40)

(4) *Monitoring reports.* Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(5) *Compliance schedules.* Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

(6) *Twenty-four hour reporting.* (i) The permittee shall report any 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).

(Clean Water Act (33 U.S.C. 1251 et seq.), Safe Drinking Water Act (42 U.S.C. 300f et seq.), Clean Air Act (42 U.S.C. 7401 et seq.), Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.))

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 30114, June 30, 1983; 48 FR 39622, Sept. 1, 1983; 50 FR 28752, July 15, 1985; 53 FR 37935, Sept. 28, 1988; 60 FR 63433, Dec. 11, 1995]

§ 270.31 Requirements for recording and reporting of monitoring results.

All permits shall specify:

(a) Requirements concerning the proper use, maintenance, and installation, when appropriate, of monitoring equipment or methods (including biological monitoring methods when appropriate);

(b) Required monitoring including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity including, when appropriate, continuous monitoring;

(c) Applicable reporting requirements based upon the impact of the regulated activity and as specified in parts 264, 266 and 267. Reporting shall be no less frequent than specified in the above regulations.

§ 270.32 Establishing permit conditions.

(a) In addition to conditions required in all permits (§ 270.30), the Director shall establish conditions, as required on a case-by-case basis, in permits under §§ 270.50 (duration of permits),

270.33(a) (schedules of compliance), 270.31 (monitoring), and for EPA issued permits only, 270.33(b) (alternate schedules of compliance) and 270.3 (considerations under Federal law).

(b)(1) Each RCRA permit shall include permit conditions necessary to achieve compliance with the Act and regulations, including each of the applicable requirements specified in parts 264 and 266 through 268 of this chapter. In satisfying this provision, the Administrator may incorporate applicable requirements of parts 264 and 266 through 268 of this chapter directly into the permit or establish other permit conditions that are based on these parts.

(2) Each permit issued under section 3005 of this act shall contain terms and conditions as the Administrator or State Director determines necessary to protect human health and the environment.

(c) For a State issued permit, an applicable requirement is a State statutory or regulatory requirement which takes effect prior to final administrative disposition of a permit. For a permit issued by EPA, an applicable requirement is a statutory or regulatory requirement (including any interim final regulation) which takes effect prior to the issuance of the permit. Section 124.14 (reopening of comment period) provides a means for reopening EPA permit proceedings at the discretion of the Director where new requirements become effective during the permitting process and are of sufficient magnitude to make additional proceedings desirable. For State and EPA administered programs, an applicable requirement is also any requirement which takes effect prior to the modification or revocation and reissuance of a permit, to the extent allowed in § 270.41.

(d) New or reissued permits, and to the extent allowed under § 270.41, modified or revoked and reissued permits, shall incorporate each of the 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.

[48 FR 14228, Apr. 1, 1983, as amended at 50 FR 28752, July 15, 1985; 51 FR 40653, Nov. 7, 1986; 65 FR 30913, May 15, 2000]

§ 270.33 Schedules of compliance.

(a) The permit may, when appropriate, specify a schedule of compliance leading to compliance with the Act and regulations.

(1) *Time for compliance*. Any schedules of compliance under this section shall require compliance as soon as possible.

(2) *Interim dates*. Except as provided in paragraph (b)(1)(ii) of this section, if a permit establishes a schedule of compliance which exceeds 1 year from the date of permit issuance, the schedule shall set forth interim requirements and the dates for their achievement.

(i) The time between interim dates shall not exceed 1 year.

(ii) If the time necessary for completion of any interim requirement is more than 1 year and is not readily divisible into stages for completion, the permit shall specify interim dates for the submission of reports of progress toward completion of the interim requirements and indicate a projected completion date.

(3) *Reporting*. The permit shall be written to require that no later than 14 days following each interim date and the final date of compliance, the permittee shall notify the Director in writing, of its compliance or noncompliance with the interim or final requirements.

(b) *Alternative schedules of compliance*. An RCRA permit applicant or permittee may cease conducting regulated activities (by receiving a terminal volume of hazardous waste and, for treatment and storage HWM facilities, closing pursuant to applicable requirements; and, for disposal HWM facilities, closing and conducting post-closure care pursuant to applicable requirements) rather than continue to operate and meet permit requirements as follows:

(1) If the permittee decides to cease conducting regulated activities at a given time within the term of a permit which has already been issued:

(i) The permit may be modified to contain a new or additional schedule

leading to timely cessation of activities; or

(ii) The permittee shall cease conducting permitted activities before noncompliance with any interim or final compliance schedule requirement already specified in the permit.

(2) If the decision to cease conducting regulated activities is made before issuance of a permit whose term will include the termination date, the permit shall contain a schedule leading to termination which will ensure timely compliance with applicable requirements.

(3) If the permittee is undecided whether to cease conducting regulated activities, the Director may issue or modify a permit to contain two schedules as follows:

(i) Both schedules shall contain an identical interim deadline requiring a final decision on whether to cease conducting regulated activities no later than a date which ensures sufficient time to comply with applicable requirements in a timely manner if the decision is to continue conducting regulated activities;

(ii) One schedule shall lead to timely compliance with applicable requirements;

(iii) The second schedule shall lead to cessation of regulated activities by a date which will ensure timely compliance with applicable requirements;

(iv) Each permit containing two schedules shall include a requirement that after the permittee has made a final decision under paragraph (b)(3)(i) of this section it shall follow the schedule leading to compliance if the decision is to continue conducting regulated activities, and follow the schedule leading to termination if the decision is to cease conducting regulated activities.

(4) The applicant's or permittee's decision to cease conducting regulated activities shall be evidenced by a firm public commitment satisfactory to the Director, such as resolution of the board of directors of a corporation.

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 30114, June 30, 1983]

Subpart D—Changes to 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. 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]

§ 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 reopened and subject to revision and the permit is reissued for a new term. (See 40 CFR 124.5(c)(2).) If cause does not exist under this section, 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 40 CFR 270.42. 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; the following may be causes for revocation and reissuance, as well as modification, when the permittee requests or agrees.

(1) *Alterations*. There are material and substantial alterations or additions to the permitted facility or activity which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit.

(2) *Information*. The Director has received information. Permits may be modified during their terms for this cause only if the information was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and would have justified the application of different permit conditions at the time of issuance.

(3) *New 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(l)(3)) of a proposed transfer of the permit.

(c) *Facility siting*. Suitability of the facility location will not be considered at the time of permit modification or revocation and reissuance unless new information or standards indicate that a threat to human health or the environmental exists which was unknown at the time of permit issuance.

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 30114, June 30, 1983; 50 FR 28752, July 15, 1985; 52 FR 45799, Dec. 1, 1987; 53 FR 37936, Sept. 28, 1988]

§ 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 notification must be made within 90 calendar days after the change is put into effect. For the Class I modifications that require prior Director approval, the notification must be made within 90 calendar days after the Director approves the request.

(iii) Any person may request the Director to review, and the Director may for cause reject, any Class 1 modification. The Director must inform the permittee by certified mail that a Class 1 modification has been rejected, explaining the reasons for the rejection. If a Class 1 modification has been rejected, the permittee must comply with the original permit conditions.

(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, or

(E) Notify the permittee that he or she will decide on the request within the next 30 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:

(A) Approve the modification request, with or without changes, and modify the permit accordingly;

(B) Deny the request; or

(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.

(iii) If the Director fails to make one of the decisions specified in paragraph (b)(6)(ii) of this section by the 120th day 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 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, 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 no 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.

(4) 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 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.

(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 became subject to hazardous waste regulatory requirements.

(i) *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.

(j) *Combustion facility changes to meet part 63 MACT standards.* The following procedures apply to hazardous waste combustion facility permit modifications requested under Appendix I of this section, section L(9).

(1) Facility owners or operators must have complied with the Notification of Intent to Comply (NIC) requirements of 40 CFR 63.1210 that were in effect prior to October 11, 2000, (See 40 CFR Part 63 Revised as of July 1, 2000) in order to request a permit modification under this section.

(2) If the Director does not approve or deny the request within 90 days of receiving it, the request shall be deemed approved. The Director may, at his or her discretion, extend this 90 day deadline one time for up to 30 days by notifying the facility owner or operator.

APPENDIX I TO § 270.42—CLASSIFICATION OF PERMIT MODIFICATION

Modifications	Class
A. *General Permit Provisions*	
1. Administrative and informational changes	1
2. Correction of typographical errors	1
3. Equipment replacement or upgrading with functionally equivalent components (e.g., pipes, valves, pumps, conveyors, controls)	1
4. Changes in the frequency of or procedures for monitoring, reporting, sampling, or maintenance activities by the permittee:	
a. To provide for more frequent monitoring, reporting, sampling, or maintenance	1
b. Other changes	2
5. Schedule of compliance:	
a. Changes in interim compliance dates, with prior approval of the Director	[1] 1
b. Extension of final compliance date	3
6. Changes in expiration date of permit to allow earlier permit termination, with prior approval of the Director	[1] 1
7. Changes in ownership or operational control of a facility, provided the procedures of § 270.40(b) are followed	[1] 1
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).	[1] 1
B. *General Facility Standards*	
1. Changes to waste sampling or analysis methods:	
a. To conform with agency guidance or regulations	1
b. To incorporate changes associated with F039 (multi-source leachate) sampling or analysis methods	1
c. To incorporate changes associated with underlying hazardous constituents in ignitable or corrosive wastes	[1] 1
d. Other changes	2
2. Changes to analytical quality assurance/control plan:	
a. To conform with agency guidance or regulations	1
b. Other changes	2
3. Changes in procedures for maintaining the operating record	1
4. Changes in frequency or content of inspection schedules	2
5. Changes in the training plan:	
a. That affect the type or decrease the amount of training given to employees	2
b. Other changes	1
6. Contingency plan:	
a. Changes in emergency procedures (i.e., spill or release response procedures)	2
b. Replacement with functionally equivalent equipment, upgrade, or relocate emergency equipment listed	1
c. Removal of equipment from emergency equipment list	2
d. Changes in name, address, or phone number of coordinators or other persons or agencies identified in the plan	1
7. Construction quality assurance plan:	
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	1
b. Other changes	2
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	2
b. Replacement of an existing well that has been damaged or rendered inoperable, without change to location, design, or depth of the well	1
2. Changes in ground-water sampling or analysis procedures or monitoring schedule, with prior approval of the Director	[1] 1
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	[1] 1
4. Changes in point of compliance	[1] 2

APPENDIX I TO § 270.42—CLASSIFICATION OF PERMIT MODIFICATION—Continued

Modifications	Class
5. Changes in indicator parameters, hazardous constituents, or concentration limits (including ACLs):	
a. As specified in the groundwater protection standard	3
b. As specified in the detection monitoring program	2
6. Changes to a detection monitoring program as required by § 264.98(j), unless otherwise specified in this appendix	2
7. Compliance monitoring program:	
a. Addition of compliance monitoring program as required by §§ 264.98(h)(4) and 264.99	3
b. Changes to a compliance monitoring program as required by § 264.99(k), unless otherwise specified in this appendix	2
8. Corrective action program:	
a. Addition of a corrective action program as required by §§ 264.99(i)(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] 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] 1
c. Changes in the expected year of final closure, where other permit conditions are not changed, with prior approval of the Director	[1] 1
d. Changes in procedures for decontamination of facility equipment or structures, with prior approval of the Director	[1] 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 nonhazardous 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. Incinerators	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] 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)	[1] 1
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) 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 of 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)	1
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)	[1] 1

APPENDIX I TO § 270.42—CLASSIFICATION OF PERMIT MODIFICATION—Continued

Modifications	Class
G. *Tanks*	
1:	
a. 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	3
b. 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	2
c. 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	2
d. 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	[1] 1
e. 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 ''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. It is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028)	[1] 1
2. Modification of a tank unit or secondary containment system without increasing the capacity of the unit	2
3. Replacement of a tank with a tank that meets the same design standards and has a capacity within +/−10% of the replaced tank provided	1
—The capacity difference is no more than 1500 gallons,	
—The facility's permitted tank capacity is not increased, and	
—The replacement tank meets the same conditions in the permit.	
4. Modification of a tank management practice	2
5. Management of different wastes in tanks:	
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	3
b. That do not require additional or different management practices, tank design, different fire protection specifications, or significantly different tank treatment process than authorized in the permit, except as provided in (G)(5)(d)	2
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 ''use of practically available technology that yields the greatest environmental benefit'' contained in § 268.8(a)(2)(ii). The modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028)	[1] 1
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)	1
Note: See § 270.42(g) for modification procedures to be used for the management of newly lilsted or identified wastes.	
H. *Surface Impoundments*	
1. Modification or addition of surface impoundment units that result in increasing the facility's surface impoundment storage or treatment capacity	3
2. Replacement of a surface impoundment unit	3
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	2
4. Modification of a surface impoundment management practice	2
5. Treatment, storage, or disposal of different wastes in surface impoundments:	
a. That require additional or different management practices or different design of the liner or leak detection system than authorized in the permit	3
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	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 § 269.8(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)	1
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)	1
6. Modifications of unconstructed units to comply with §§ 264.221(c), 264.222, 264.223, and 264.226(d)	*1
7. 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
Note: See § 270.42(g) for modification procedures to be used for the management of newly listed or identified wastes	
I. *Enclosed Waste Piles.* For all waste piles except those complying with § 264.250(c), modifications are treated the same as for a landfill. The following modifications are applicable only to waste piles complying with § 264.250(c).	
1. Modification or addition of waste pile units:	
a. Resulting in greater than 25% increase in the facility's waste pile storage or treatment capacity	3
b. Resulting in up to 25% increase in the facility's waste pile storage or treatment capacity	2

APPENDIX I TO § 270.42—CLASSIFICATION OF PERMIT MODIFICATION—Continued

Modifications	Class
2. Modification of waste pile unit without increasing the capacity of the unit	2
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	1
4. Modification of a waste pile management practice	2
5. Storage or treatment of different wastes in waste piles:	
a. That require additional or different management practices or different design of the unit	3
b. That do not require additional or different management practices or different design of the unit	2
6. Conversion of an enclosed waste pile to a containment building unit	2
Note: See § 270.42(g) for modification procedures to be used for the management of newly listed or identified wastes.	
J. *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)(ii), 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
Note: See § 270.42(g) for modification procedures to be used for the management of newly listed or identified wastes.	
K. *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	
6. Modification of a land treatment unit management practice to:	
a. Increase rate or change method of waste application	3
b. Decrease rate of waste application	1
7. Modification of a land treatment unit management practice to change measures of pH or moisture content, or to enhance microbial or chemical reactions	2
8. Modification of a land treatment unit management practice to grow food chain crops, to add to or replace existing permitted crops with different food chain crops, or to modify operating plans for distribution of animal feeds resulting from such crops	3
9. Modification of operating practice due to detection of releases from the land treatment unit pursuant to § 264.278(g)(2)	3
10. Changes in the unsaturated zone monitoring system, resulting in a change to the location, depth, number of sampling points, or replace unsaturated zone monitoring devices or components of devices with devices or components that have specifications different from permit requirements	3
11. Changes in the unsaturated zone monitoring system that do not result in a change to the location, depth, number of sampling points, or that replace unsaturated zone monitoring devices or components of devices with devices or components having specifications different from permit requirements	2
12. Changes in background values for hazardous constituents in soil and soil-pore liquid	2
13. Changes in sampling, analysis, or statistical procedure	2
14. Changes in land treatment demonstration program prior to or during the demonstration	2
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	[1] 1

APPENDIX I TO § 270.42—CLASSIFICATION OF PERMIT MODIFICATION—Continued

Modifications	Class
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	[1] 1
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	3
18. Changes in vegetative cover requirements for closure	2
L. Incinerators, Boilers, and Industrial Furnaces:	
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	3
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	2
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/Cl_2, 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	3
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	2
5. Operating requirements:.	
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	3
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	3
c. Modification of any other operating condition or any inspection or recordkeeping requirement specified in the permit	2
6. Burning different wastes:.	
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	3
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	2
Note: See § 270.42(g) for modification procedures to be used for the management of newly listed or identified wastes	
7. Shakedown and trial burn:	
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	2
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	[1] 1
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	[1] 1
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	[1] 1
8. Substitution of an alternative type of nonhazardous waste fuel that is not specified in the permit	1
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(j) are followed.	[1] 1
M. Containment Buildings.	
1. Modification or addition of containment building units:	
a. Resulting in greater than 25% increase in the facility's containment building storage or treatment capacity	3
b. Resulting in up to 25% increase in the facility's containment building storage or treatment capacity	2
2. Modification of a containment building unit or secondary containment system without increasing the capacity of the unit	2
3. Replacement of a containment building with a containment building that meets the same design standards provided:	
a. The unit capacity is not increased	1
b. The replacement containment building meets the same conditions in the permit	1
4. Modification of a containment building management practice	2

APPENDIX I TO § 270.42—CLASSIFICATION OF PERMIT MODIFICATION—Continued

Modifications	Class
5. Storage or treatment of different wastes in containment buildings:	
a. That require additional or different management practices	3
b. That do not require additional or different management practices	2
N. Corrective Action:	
1. Approval of a corrective action management unit pursuant to § 264.552	3
2. Approval of a temporary unit or time extension for a temporary unit pursuant to § 264.553	2
3. Approval of a staging pile or staging pile operating term extension pursuant to § 264.554	2

[1] Class 1 modifications requiring prior Agency approval.

[53 FR 37936, Sept. 28, 1988]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 270.42, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

§ 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.

[48 FR 14228, Apr. 1, 1983, as amended at 65 FR 30913, May 15, 2000]

Subpart E—Expiration and Continuation of Permits

§ 270.50 Duration of permits.

(a) RCRA permits shall be effective for a fixed term not to exceed 10 years.

(b) Except as provided in § 270.51, the term of a permit shall not be extended by modification beyond the maximum duration specified in this section.

(c) The Director may issue any permit for a duration that is less than the full allowable term under this section.

(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.

[48 FR 14228, Apr. 1, 1983, as amended at 50 FR 28752, July 15, 1985]

§ 270.51 Continuation of expiring permits.

(a) *EPA permits.* When EPA is the permit-issuing authority, the conditions of an expired permit continue in force under 5 U.S.C. 558(c) until the effective date of a new permit (see § 124.15) if:

(1) The permittee has submitted a timely application under § 270.14 and the applicable sections in §§ 270.15 through 270.29 which is a complete (under § 270.10(c)) application for a new permit; and

(2) The Regional Administrator through no fault of the permittee, does not issue a new permit with an effective date under § 124.15 on or before the expiration date of the previous permit (for example, when issuance is impracticable due to time or resource constraints).

(b) *Effect.* Permits continued under this section remain fully effective and enforceable.

(c) *Enforcement.* When the permittee is not in compliance with the conditions of the expiring or expired permit, the Regional Administrator may choose to do any or all of the following:

(1) Initiate enforcement action based upon the permit which has been continued;

(2) Issue a notice of intent to deny the new permit under § 124.6. If the permit is denied, the owner or operator

would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;

(3) Issue a new permit under part 124 with appropriate conditions; or

(4) Take other actions authorized by these regulations.

(d) *State continuation.* In a State with an hazardous waste program authorized under 40 CFR part 271, if a permittee has submitted a timely and complete application under applicable State law and regulations, the terms and conditions of an EPA-issued RCRA permit continue in force beyond the expiration date of the permit, but only until the effective date of the State's issuance or denial of a State RCRA permit.

(Clean Water Act (33 U.S.C. 1251 et seq.), Safe Drinking Water Act (42 U.S.C. 300f et seq.), Clean Air Act (42 U.S.C. 7401 et seq.), Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.))

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 39622, Sept. 1, 1983]

Subpart F—Special Forms of Permits

§ 270.60 Permits by rule.

Notwithstanding any other provision of this part or part 124, the following shall be deemed to have a RCRA permit if the conditions listed are met:

(a) *Ocean disposal barges or vessels.* The owner or operator of a barge or other vessel which accepts hazardous waste for ocean disposal, if the owner or operator:

(1) Has a permit for ocean dumping issued under 40 CFR part 220 (Ocean Dumping, authorized by the Marine Protection, Research, and Sanctuaries Act, as amended, 33 U.S.C. 1420 *et seq.*);

(2) Complies with the conditions of that permit; and

(3) Complies with the following hazardous waste regulations:

(i) 40 CFR 264.11, Identification number;

(ii) 40 CFR 264.71, Use of manifest system;

(iii) 40 CFR 264.72, Manifest discrepancies;

(iv) 40 CFR 264.73(a) and (b)(1), Operating record;

(v) 40 CFR 264.75, Biennial report; and

(vi) 40 CFR 264.76, Unmanifested waste report.

(b) *Injection wells.* The owner or operator of an injection well disposing of hazardous waste, if the owner or operator:

(1) Has a permit for underground injection issued under part 144 or 145; and

(2) Complies with the conditions of that permit and the requirements of § 144.14 (requirements for wells managing hazardous waste).

(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

(vii) For NPDES permits issued after November 8, 1984, 40 CFR 264.101.

(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.

[48 FR 14228, Apr. 1, 1983, as amended at 50 FR 28752, July 15, 1985; 52 FR 45799, Dec. 1, 1987]

§ 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.

[48 FR 14228, Apr. 1, 1983, as amended at 48 FR 30114, June 30, 1983; 60 FR 63433, Dec. 11, 1996]

§ 270.62 Hazardous waste incinerator permits.

When an owner or operator 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), 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) and 270.32(b)(2).

(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 analytical techniques specified in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication SW–846, as incorporated by reference in § 260.11 of this chapter and § 270.6, or other equivalent.

(D) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by the analytical methods specified in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication SW–846, as incorporated by reference in § 260.11 of this chapter and § 270.6, or their equivalent.

(ii) A detailed engineering description of the incinerator for which the permit is sought including:

(A) Manufacturer's name and model number of incinerator (if available).

(B) Type of incinerator.

(C) Linear dimensions of the incinerator unit including the cross sectional area of combustion chamber.

(D) Description of the auxiliary fuel system (type/feed).

(E) Capacity of prime mover.

(F) Description of automatic waste feed cut-off system(s).

(G) Stack gas monitoring and pollution control equipment.

(H) Nozzle and burner design.

(I) Construction materials.

(J) Location and description of temperature, pressure, and flow indicating and control devices.

(iii) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.

(iv) A detailed test schedule for each waste for which the trial burn is planned including date(s), duration, quantity of waste to be burned, and other factors relevant to the Director's decision under paragraph (b)(5) of this section.

(v) A detailed test protocol, including, for each waste identified, the ranges of temperature, waste feed rate, combustion gas velocity, use of auxiliary fuel, and any other relevant parameters that will be varied to affect the destruction and removal efficiency of the incinerator.

(vi) A description of, and planned operating conditions for, any emission control equipment which will be used.

(vii) Procedures for rapidly stopping waste feed, shutting down the incinerator, and controlling emissions in the event of an equipment malfunction.

(viii) Such other information as the Director reasonably finds necessary to determine whether to approve the trial burn plan in light of the purposes of this paragraph and the criteria in paragraph (b)(5) of this section.

(3) The Director, in reviewing the trial burn plan, shall evaluate the sufficiency of the information provided and may require the applicant to supplement this information, if necessary, to achieve the purposes of this paragraph.

(4) Based on the waste analysis data in the trial burn plan, the Director will specify as trial Principal Organic Hazardous Constituents (POHCs), those constituents for which destruction and removal efficiencies must be calculated during the trial burn. These trial POHCs will be specified by the Director based on his estimate of the difficulty of incineration of the constituents identified in the waste analysis, their concentration or mass in the waste feed, and, for wastes listed in part 261,

subpart D, of this chapter, the hazardous waste organic constituent or constituents identified in appendix VII of that part as the basis for listing.

(5) The Director shall approve a trial burn plan if he finds that:

(i) The trial burn is likely to determine whether the incinerator performance standard required by § 264.343 of this chapter can be met;

(ii) The trial burn itself will not present an imminent hazard to human health or the environment;

(iii) The trial burn will help the Director to determine operating requirements to be specified under § 264.345 of this chapter; and

(iv) The information sought in paragraphs (b)(5) (i) and (ii) of this section cannot reasonably be developed through other means.

(6) 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:

(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 (O_2) and hydrogen chloride (HCl).

(iii) A quantitative analysis of the scrubber water (if any), ash residues, and other residues, for the purpose of estimating the fate of the trial POHCs.

(iv) A computation of destruction and removal efficiency (DRE), in accordance with the DRE formula specified in § 264.343(a) of this chapter.

(v) If the HCl emission rate exceeds 1.8 kilograms of HCl per hour (4 pounds per hour), a computation of HCl removal efficiency in accordance with § 264.343(b) of this chapter.

(vi) A computation of particulate emissions, in accordance with § 264.343(c) of this chapter.

(vii) An identification of sources of fugitive emissions and their means of control.

(viii) A measurement of average, maximum, and minimum temperatures and combustion gas velocity.

(ix) A continuous measurement of carbon monoxide (CO) in the exhaust gas.

(x) Such other information as the Director may specify as necessary to ensure that the trial burn will determine compliance with the performance standards in § 264.343 of this chapter and to establish the operating conditions required by § 264.345 of this chapter as necessary to meet that performance standard.

(8) The applicant must submit to the Director a certification that the trial burn has been carried out in accordance with the approved trial burn plan, and must submit the results of all the determinations required in paragraph (b)(6) of this section. This submission shall be made within 90 days of completion of the trial burn, or later if approved by the Director.

(9) All data collected during any trial burn must be submitted to the Director following the completion of the trial burn.

(10) 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.

(11) Based on the results of the trial burn, the Director shall set the operating requirements in the final permit according to § 264.345 of this chapter. The permit modification shall proceed according to § 270.42.

(c) For the purposes of allowing operation of a new hazardous waste incinerator following completion of the trial burn and prior to final modification of the permit conditions to reflect the trial burn results, the Director may establish permit conditions, including but not limited to allowable waste feeds and operating conditions sufficient to meet the requirements of § 264.345 of this chapter, in the permit to a new hazardous waste incinerator. These permit conditions will be effective for the minimum time required to complete sample analysis, data computation and submission of the trial burn results by the applicant, and modification of the facility permit by the Director.

(1) Applicants must submit a statement, with part B of the permit application, which identifies the conditions necessary to operate in compliance with the performance standards of § 264.343 of this chapter, during this period. This statement should include, at a minimum, restrictions on waste constituents, waste feed rates, and the operating parameters in § 264.345 of this chapter.

(2) The Director will review this statement and any other relevant information submitted with part B of the permit application and specify those requirements for this period most likely to meet the performance standards of § 264.343 of this chapter based on his engineering judgment.

(d) For the 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 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.

[48 FR 14228, Apr. 1, 1983, as amended at 53 FR 37939, Sept. 28, 1988; 58 FR 46051, Aug. 31, 1993; 60 FR 63433, Dec. 11, 1995; 64 FR 53077, Sept. 30, 1999; 67 FR 6816, Feb. 13, 2002]

§ 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).

[48 FR 14228, Apr. 1, 1983, as amended at 53 FR 37939, Sept. 28, 1988]

§ 270.64 Interim permits for UIC wells.

The Director may issue a permit under this part to any Class I UIC well (see § 144.6) injecting hazardous wastes within a State in which no UIC program has been approved or promulgated. Any such permit shall apply and insure compliance with all applicable requirements of 40 CFR part 264, subpart R (RCRA standards for wells), and shall be for a term not to exceed two years. No such permit shall be issued after approval or promulgation of a UIC program in the State. Any permit under this section shall contain a condition providing that it will terminate

upon final action by the Director under a UIC program to issue or deny a UIC permit for the facility.

[48 FR 14228, Apr. 1, 1983; 48 FR 30114, June 30, 1983]

§ 270.65 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 waive permit application and permit issuance requirements in parts 124 and 270 except that there may be no modification or waiver of regulations regarding financial responsibility (including insurance) or of procedures regarding public participation.

(c) The Administrator may order an immediate termination of all operations at the facility at any time he determines that termination is necessary to protect human health and the environment.

(d) Any permit issued under this section may be renewed not more than three times. Each such renewal shall be for a period of not more than 1 year.

[50 FR 28752, July 15, 1985]

§ 270.66 Permits for boilers and industrial furnaces burning hazardous waste.

When an owner or operator of a cement or lightweight aggregate kiln 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), the requirements of this section do not apply, except those provisions the Director determines 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. 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) and 270.32(b)(2).

(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 analytical techniques specified in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication SW–846, as incorporated by reference in § 260.11 of this chapter and § 270.6, or their equivalent.

(ii) An approximate quantification of the hazardous constituents identified in the hazardous waste, within the precision produced by the analytical methods specified in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication SW–846, as incorporated by reference in § 260.11 of this chapter and § 270.6, or other equivalent.

(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;

(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 to approve the trial burn plan in light of the purposes of this paragraph and the criteria in paragraph (b)(2) of this section.

(d) *Trial burn procedures.* (1) A trial burn must be conducted to demonstrate conformance with the standards of §§ 266.104 through 266.107 of this chapter under an approved trial burn plan.

(2) The Director shall approve a trial burn plan if he/she finds that:

(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 tetra-octa congeners 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/Cl_2 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 (Cl_2), and computations showing conformance with the applicable emission performance standards;

(5) When a trial burn for DRE, metals, or HCl/Cl_2 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 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 periods during which the trial burn would be conducted. Applicants who submit a trial burn plan and receive approval before submission of the part B permit application must complete the trial burn and submit the results specified in paragraph (f) of this section with the part B permit application. If completion of this process conflicts with the date set for submission of the part B application, the applicant must contact the Director to establish a later date for submission of the part B application or the trial burn results. If the applicant submits a trial burn plan with part B of the permit application, the trial burn must be conducted and the results submitted within a time period prior to permit issuance to be specified by the Director.

[56 FR 7239, Feb. 21, 1991; 56 FR 32692, July 17, 1991, as amended at 58 FR 46051, Aug. 31, 1993; 60 FR 63433, Dec. 11, 1995; 64 FR 53077, Sept. 30, 1999]

§ 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 an 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.

[48 FR 14228, Apr. 1, 1983, as amended at 49 FR 17718, Apr. 24, 1984; 50 FR 28753, July 15, 1985]

§ 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 a 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 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 inpoundments 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 268 of this chapter or RCRA section 3004, provided that such changes are made solely for the purpose of complying with part 268 of this chapter or RCRA section 3004.

(7) Addition of newly regulated units under paragraph (a)(6) of this section.

(8) Changes necessary to comply with standards under 40 CFR part 63, Subpart EEE—National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors.

[54 FR 9608, Mar. 7, 1989, as amended at 56 FR 7239, Feb. 21, 1991; 57 FR 37282, Aug. 18, 1992; 63 FR 33829, June 19, 1998]

§ 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.

(f) For owners and operators of each incinerator facility which has achieved interim status prior to November 8, 1984, interim status terminates on November 8, 1989, unless the owner or operator of the facility submits a part B application for a RCRA permit for an incinerator facility by November 8, 1986.

(g) For owners or operators of any facility (other than a land disposal or an incinerator facility) which has achieved interim status prior to November 8, 1984, interim status terminates on November 8, 1992, unless the owner or operator of the facility submits a part B application for a RCRA permit for the facility by November 8, 1988.

[48 FR 14228, Apr. 1, 1983, as amended at 50 FR 28753, July 15, 1985; 54 FR 9609, Mar. 7, 1989; 56 FR 7239, Feb. 21, 1991; 56 FR 32692, July 17, 1991; 63 FR 65941, Nov. 30, 1998]

Subpart H—Remedial Action Plans (RAPs)

SOURCE: 63 FR 65941, Nov. 30, 1998, unless otherwise noted.

§ 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 (c)(1)(iv) do not apply; instead, you must submit the information required under § 270.110. When your permit is modified the RAP becomes part of the RCRA permit. Therefore when your permit (including the RAP portion) is modified, revoked and reissued, terminated or when it expires, it will be modified according to the applicable requirements in §§ 270.40 through 270.42, revoked and reissued according to the applicable requirements in §§ 270.41 and 270.43, terminated according to the applicable requirements in § 270.43, and expire according to the applicable requirements in §§ 270.50 and 270.51.

§ 270.90 Does my RAP grant me any rights or relieve me of any obligations?

The provisions of § 270.4 apply to RAPs. (**Note:** The provisions of § 270.4(a) provide you assurance that, as long as you comply with your RAP, EPA will consider you in compliance with Subtitle C of RCRA, and will not take enforcement actions against you. However, you should be aware of four exceptions to this provision that are listed in § 270.4.)

APPLYING FOR A RAP

§ 270.95 How do I apply for a RAP?

To apply for a RAP, you must complete an application, sign it, and submit it to the Director according to the requirements in this subpart.

§ 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 traditional RCRA permits under § 270.14(b)(20);

(i) Any other information the Director decides is necessary for demonstrating compliance with this subpart or for determining any additional RAP conditions that are necessary to protect human health and the environment.

§ 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

(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 own initiative that an informal hearing is appropriate. The hearing must include an opportunity for any person to present written or oral comments. Whenever possible, the Director must schedule this hearing at a location convenient to the nearest population center to the remediation waste management site and give notice according to the requirements in paragraph (a) of this section. This notice must, at a minimum, include the information required by paragraph (c) of this section and:

(1) Reference to the date of any previous public notices relating to the RAP application;

(2) The date, time and place of the hearing; and

(3) A brief description of the nature and purpose of the hearing, including the applicable rules and procedures.

§ 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 the same means used to provide notice under § 270.145. The notice will include:

(1) The briefing schedule for the appeal as provided by the Board;

(2) A statement that any interested person may file an amicus brief with the Board; and

(3) The information specified in § 270.145(c), as appropriate.

(b) This appeal is a prerequisite to seeking judicial review of these EPA actions.

§ 270.160 When does my RAP become effective?

Your RAP becomes effective 30 days after the Director notifies you and all commenters that your RAP is approved unless:

(a) The Director specifies a later effective date in his decision;

(b) You or another person has appealed your RAP under § 270.155 (if your RAP is appealed, and the request for review is granted under § 270.155, conditions of your RAP are stayed according to § 124.16 of this chapter); or

(c) No commenters requested a change in the draft RAP, in which case the RAP becomes effective immediately when it is issued.

§ 270.165 When may I begin physical construction of new units permitted under the RAP?

You must not begin physical construction of new units permitted under the RAP for treating, storing or disposing of hazardous remediation waste before receiving a finally effective RAP.

How May My RAP Be Modified, Revoked and Reissued, or Terminated?

§ 270.170 After my RAP is issued, how may it be modified, revoked and reissued, or terminated?

In your RAP, the Director must specify, either directly or by reference, procedures for future modifications, revocations and reissuance, or terminations of your RAP. These procedures must provide adequate opportunities for public review and comment on any modification, revocation and reissuance, or termination that would significantly change your management of your remediation waste, or that otherwise merits public review and comment. If your RAP has been incorporated into a traditional RCRA permit, as allowed under § 270.85(c), then the RAP will be modified according to the applicable requirements in §§ 270.40 through 270.42, revoked and reissued according to the applicable requirements in §§ 270.41 and 270.43, or terminated according to the applicable requirements of § 270.43.

§ 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

(8) You have notified the Director (as required in the RAP under § 270.30(l)(3)) of a proposed transfer of a RAP.

(b) Notwithstanding any other provision in this section, when the Director reviews a RAP for a land disposal facility under § 270.195, he may 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 of this chapter.

(c) 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.

§ 270.180 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 revocation and reissuance, 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 Director must review any RAP for hazardous waste land disposal five years after the date of issuance or reissuance and you or the Director must follow the requirements for modifying your RAP as necessary to assure that you continue to comply with currently applicable requirements in RCRA sections 3004 and 3005.

§ 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 before the scheduled change along with a written agreement containing a specific date for transfer of RAP responsibility between you and the new permittees.

(b) When a transfer of ownership or operational control occurs, you as the old owner or operator must comply with the applicable requirements in part 264, subpart H (Financial Requirements), of this chapter until the new owner or operator has demonstrated that he is complying with the requirements in that subpart. The new owner or operator must demonstrate compliance with part 264, subpart H, of this chapter within six months of the date of the change in ownership or operational control of the facility or remediation waste management site. When the new owner/operator demonstrates compliance with part 264, subpart H, of this chapter to the Director, the Director will notify you that you no longer need to comply with part 264, subpart H, of this chapter as of the date of demonstration.

§ 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.

OBTAINING A RAP FOR AN OFF-SITE LOCATION

§ 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 part 264, subparts B, C, and D, of this chapter.

Subpart I—Integration with Maximum Achievable Control Technology (MACT) Standards

§ 270.235 Options for incinerators and cement and lightweight aggregate kilns 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, or lightweight aggregate kiln 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 to 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)(ii)(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, or lightweight aggregate kiln 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)(iii) 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

(ii) *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 an incinerator, cement kiln, or lightweight aggregate kiln 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, or lightweight aggregate kiln 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.

[67 FR 6817, Feb. 13, 2002]

PART 271—REQUIREMENTS FOR AUTHORIZATION OF STATE HAZARDOUS WASTE PROGRAMS

Subpart A—Requirements for Final Authorization

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271.23 Procedures for withdrawing approval of State programs.
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Subpart B [Reserved]

AUTHORITY: 42 U.S.C. 6905, 6912(a), and 6926.

SOURCE: 48 FR 14248, Apr. 1, 1983, unless otherwise noted.

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.

(i) 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.

(j) 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, such as:

(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(c)(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

Promulgation date	Title of regulation	Federal Register reference	Effective date
Jan. 14, 1985	Dioxin-containing wastes	50 FR 1978–2006	July 15, 1985.
Apr. 30, 1985	Paint filter liquids test	50 FR 18370–5	June 14, 1985.
July 15, 1985	Codification rule [as corrected in 51 FR 2702, 1/21/86]	50 FR 28702–55	July 15, 1985.
Oct. 23, 1985	Listing wastes from the production of dinitrotoluene, toluenediamine, and toluene diisocyanate.	50 FR 42936–43	Oct. 23, 1985.
Nov. 29, 1985	Standards for the management of the burning of specific wastes in specific types of facilities.	50 FR 49164–212	Dec. 9, 1985. Mar. 31, 1986. May 29, 1986.
Dec. 31, 1985	Amendment of spent solvent listings to include solvent mixtures [as corrected in 51 FR 19176, 5/28/86].	50 FR 53315–20	Jan. 30, 1986.
Feb. 13, 1986	Listing wastes from the production of ethylene dibromide (EDB).	51FR 5327–31	Aug. 13, 1986.
Feb. 25, 1986	Listing of four spent solvents and the still bottoms from their recovery.	51 FR 6537–42	Aug. 25, 1986.
Mar. 24, 1986	Regulations for generators of 100–1000 kg/mo of hazardous waste.	51 FR 10146–76	Sept. 22, 1986.
July 14, 1986	Hazardous Waste Tank Regulations:[1] 260.10; 262.34(a)(1); 264.110; 264.140; 264.190–264.199; 265.110; 265.140; 265.190–265.200; 270.14(b); 270.16; and 270.72 (e).	51 FR 25422–86	Jan. 12, 1987. Mar. 24, 1987.
Aug. 8, 1986	Exports of hazardous waste	51 FR 28664–86	Nov. 8, 1986.
Oct. 24, 1986	Listing Wastes from the Production and Formulation of Ethylenebisdithiocarbamic Acid (EBDC) and its Salts.	51 FR 37725	Apr. 24, 1987.
Nov. 7, 1986	Land disposal restrictions for solvents and dioxins	51 FR 40572	Nov. 8, 1986.
July 8, 1987	Land disposal restrictions for California list wastes	52 FR 25760	July 8, 1987.
Sept. 23, 1987	Exception Reporting for Small Quantity Generators of Hazardous Waste.	52 FR 35899	Mar. 23, 1988.
Dec. 1, 1987	Codification rule for the 1984 RCRA Amendments	52 FR 45799	Dec. 31, 1987.
Aug. 17, 1988	Land disposal restrictions for First Third wastes	53 FR 31138–222	Aug. 8, 1988.
June 23, 1989	Land Disposal Restrictions for Second Third wastes	54 FR 26594–652	June 8, 1989.
Oct. 6, 1989	Listing Wastes from the Production of Methyl Bromide	54 FR 41402–408	Apr. 6, 1990.
Dec. 11, 1989	Listing Certain Hydrocarbons Produced by Free Radical Catalyzed Processes.	54 FR 50968–978	June 11, 1990.
Mar. 29, 1990	Toxicity characteristic	55 FR 11798–877	Sept. 25, 1990.
May 1, 1990	Listing Wastes from the Production of UDMH from Carboxylic Acid Hydrazides.	55 FR 18496–506	Nov. 2, 1990.
June 1, 1990	Land Disposal Restrictions for Third Third wastes	55 FR 22520–720	May 8, 1990.

TABLE 1—REGULATIONS IMPLEMENTING THE HAZARDOUS AND SOLID WASTE AMENDMENTS OF 1984—Continued

Promulgation date	Title of regulation	Federal Register reference	Effective date
June 21, 1990	Process Vent and Equipment Leak Organic Air Emission Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.	55 FR 25454–519	Dec. 21, 1990.
Nov. 2, 1990	Petroleum refinery primary and secondary oil/water/solids separation sludge listings.	55 FR 46354–397	May 2, 1991.
Dec. 6, 1990	The listing of wastes from wood preserving processes.[2]	55 FR 50450–490	June 6, 1991.
Dec. 31, 1990	Burning of Hazardous Waste in Boilers and Industrial Furnaces.	56 FR 7134–7240	Aug. 21, 1991.
May 13, 1991	Petroleum refinery primary and secondary oil/water/solids separation sludge listings.	56 FR 21959	May 2, 1991.
Aug. 19, 1991	Land disposal restrictions & generic exclusion for K061 nonwastewaters & conditional exclusion for K061 HTMR splash condenser dross residue.	56 FR 41178	Aug. 8, 1991.
Jan. 29, 1992	Liners and Leak Detection for Hazardous Waste Land Disposal Units[3].	57 FR 3497	July 29, 1992.
June 22, 1992	Exclusion from the definition of solid waste for the recycling of hazardous wastes in the coke by-products industry.	57 FR 27888	June 22, 1992.
Aug. 18, 1992	Land disposal restrictions for newly listed wastes in § 268.36 (b)–(g).	57 FR 37282	June 30, 1992.
Do	Land disposal restrictions for newly listed wastes in § 268.36(a), hazardous debris, and generic exclusion for K062 and F006 nonwaste-waters.	.....Do	Nov. 9, 1992.
Aug. 18, 1992	The listing of wastes from the production, recovery, and refining of coke by-products produced from coal.	57 FR 37306	Feb. 18, 1993
Oct. 15, 1992	Listing Wastes from the Production of Chlorinated Toluenes.	57 FR 47386	Apr. 15, 1993.
Nov. 18, 1992	Containerized Liquids in Landfills	57 FR 54461	May 18, 1992.
Nov. 24, 1992	Toxicity Characteristic Revision	57 FR 55117	Nov. 24, 1992.
Feb. 16, 1993	Corrective Action Management Units and Temporary Units; Corrective Action Provisions under Subtitle C.	58 FR 8685	Apr. 19, 1993.
May 24, 1993	Land disposal restrictions for characteristic wastes whose treatment standards were vacated.	58 FR 29887	Aug. 9, 1993.
Nov. 9, 1993	Burning of hazardous waste in boilers and industrial furnaces.	58 FR 59603	Oct. 15, 1993.
Sept. 19, 1994	Land Disposal Restrictions Phase II—Universal Treatment Standards, and Treatment Standards for Organic Toxicity Characteristic Wastes and Newly Listed Wastes[4] in § 268.38.	47982–48110	Dec. 19, 1994.
Dec. 6, 1994	Air Emission Standards for Tanks, Surface Impoundments, and Containers.	59 FR 62896–62953	Dec. 6, 1996.
Feb. 9, 1995	Listing Wastes from the Production of Carbamates	60 FR 7856	Aug. 9, 1995.
July 11, 1995	Containerized Liquids in Landfills	60 FR 35706	Sept. 11, 1995.
Apr. 8, 1996	Land Disposal Restrictions Phase III—Decharacterized Wastesaters, Carbamate Wastes, and Spent Aluminum Potliners in § 268.39.	61 FR 15660	July 8, 1996.
July 1, 1996	Revisions to Criteria applicable to solid waste facilities that may accept CESQG hazardous wastes, excluding MSWLF's.	61 FR 34278	Jan. 1, 1998.
Aug. 26, 1996	Emergency Revision of the Land Disposal Restrictions (LDR) Phase III Treatment Standards for Listed Hazardous Wastes from Carbamate Production.	61 FR 43931.	Aug. 26, 1996 until Aug. 26, 1997.
May 12, 1997	Land Disposal Restrictions for Wood Preserving Wastes and Paperwork Reductions.	62 FR 26040	Aug. 11, 1997.
June 17, 1997	Vacated Carbamate wastes	62 FR 32979	Aug. 9, 1995.
Aug. 28, 1997	Second Emergency Revision of the Land Disposal Restrictions (LDR) Phase III Treatment Standards for Listed Hazardous Wastes from Carbamate Production..	62 FR 45572	Aug. 26, 1997 until Aug. 26, 1998.
May 4, 1998	Listing of Organobromine Production Wastes	63 FR 24627	Nov. 4, 1998.
May 26, 1998	Land Disposal Restrictions Phase IV Final Rule	63 FR 28753	Aug. 24, 1998.
Aug. 6, 1998	Petroleum Refining Process Wastes	63 FR 42188	Feb. 8, 1999.
Sept. 4, 1998	Emergency Revision of the Land Disposal Restrictions (LDR) Phase III Treatment Standards for Listed Hazardous Wastes from Carbamate Production.	63 FR 47418	Sept. 4, 1998.
Sept. 21, 1998	Treatment Standards for Hazardous Waste K088	63 FR 51267	Sept. 21, 1998.
Nov. 30, 1998	Hazardous Remediation Waste Management Requirements[5].	63 FR 65947	June 1, 1999.
Sept. 30, 1999	Standards for Hazardous Air Pollutants for Hazardous Waste Combustors.	64 FR 53077	Sept. 30, 1999.

TABLE 1—REGULATIONS IMPLEMENTING THE HAZARDOUS AND SOLID WASTE AMENDMENTS OF 1984—Continued

Promulgation date	Title of regulation	Federal Register reference	Effective date
Mar. 17, 2000	Vacated Organobromine wastes	65 FR 14475	Nov. 4, 1998.
Sept. 29, 2000	Listing of Hazardous Wastes K174 and K175	65 FR 67132	May 7, 2001.
Oct. 31, 2001	Listing of Inorganic Chemical Manufacturing Wastes	67 FR 58299	May 20, 2002.
February 13, 2002	Interim Standards for Hazardous Air Pollutants for Hazardous Waste Combustors.	67 FR 6818, Feb. 13, 2002	February 13, 2002.
January 22, 2002	Corrective Action Management Unit Standards Amendments	67 FR 3029, Jan. 22, 2002	April 22, 2002.

[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: §§264.19 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

Effective date	Self-implementing provision	RCRA citation	FEDERAL REGISTER reference
Nov. 8, 1984	Delisting procedures	3001(f)	July 15, 1985, 50 FR 28702–55.
Do	Waste disposal for small quantity generators prior to March 31, 1986.	3001(d)(5)	Do.
Do	Prohibition of disposal in salt domes, salt beds and underground mines and caves.	3004(b)	Do.
Do	Land disposal prohibition not applicable to contaminated soil or debris from a CERCLA response action or a RCRA corrective action prior to November 8, 1988.	3004(d)(3)	Do.
Do	Loss of interim status	3005(c)(2)(C) & (e)(2)–(3)	Do.
Do	Storage of wastes prohibited from land disposal	3004(j) & 3005(j)(11)	Do.
Do	Prohibition of waste and used oil as dust suppressant	3004(l)	Do.
Do	Minimum technological requirements for new and expanding surface impoundments, landfills and incinerators.	3004(o)	Do.
Do	Ground water monitoring	3004(p)	Do.
Do	Prohibition for burning fuels containing hazardous waste in any cement kilns.	3004(q)(2)(C)	Do.
Do	Financial responsibility for liability of guarantor when owner/operator is in bankruptcy.	3004(t)(2)–(3)	Do.
Do	Corrective action	3004(u)	Do.
Do	Review of land disposal permits every 5 years	3005(c)(3)	Do.
Do	Permit terms and conditions necessary to protect human health and the envirorment.	3005(c)(3)	Do.
Do	Research, development, and demonstration permits	3005(g)	Do.
Do	Interim status facilities receiving waste after July 26, 1982.	3005(i)	Do.
Do	Deadline for surface impoundment retrofit exemption application.	3005(j)(5)	Do.
Feb. 7, 1985	Fuel labeling requirements	3004(r)	Do.
May 8, 1985	Prohibition of liquids in landfills	3004(c)(1)	Do.
Do	Expansions during interim status for waste piles	3015(a)	Do.
Do	Expansions during interim status for landfills and surface impoundments.	3015(b)	Do.
Do	Interim control of hazardous waste disposed of by underground injection.	7010(a)	Do.
Aug. 5, 1985	Small quantity generator manifest requirements	3001(d)(3)	Do.
Aug. 8, 1985	Exposure assessments to accompany landfill and surface impoundment permit applications.	3019(a)	Do.
Sept. 1, 1985	Waste mininization certification on manifest	3002(b)	Do.
Do	Waste minimization permit condition	3005(h)	Do.
Nov. 8, 1985	Prohibition of non-hazardous liquids in landfills	3004(c)(3)	Do.
Do	Notification of hazardous waste export	3017(c)	Do.

TABLE 2—SELF-IMPLEMENTING PROVISIONS OF THE HAZARDOUS AND SOLID WASTE AMENDMENTS OF 1984—Continued

Effective date	Self-implementing provision	RCRA citation	FEDERAL REGISTER reference
Feb. 8, 1986 [1]	Notification requirements for producers, burners, blenders, distributors and marketers of waste derived fuel.	3010(a)	Nov. 29, 1985, 50 FR 49164–211.
Mar. 31, 1986 [2]	Small quantity generator requirements	3001(d)(8)	Mar. 24, 1986, 51 FR 10146–78.
Nov. 8, 1986	Land disposal prohibitions on dioxins and F001–F005 solvents.	3004(e)	Nov. 7, 1986, 51 FR 40572.
Do	Temporary granting of exclusion petitions ceases	3001(f)(2)(B)	
Do	Export of hazardous waste	3017(a)	Aug. 8, 1986, 51 FR 28664–86.
July 8, 1987	Land disposal restrictions for California list wastes	3004(d)	July 8, 1987, 52 FR 25760.
Sept. 23, 1987	Exception reporting for small quantity generators of hazardous waste.	52 FR 35899	Mar. 23, 1988.
Aug. 8, 1988	Prohibition on California wastes, dioxins, and solvents in deep injection wells.	3004(f)(3)	
Do	Land disposal restrictions of ⅓ of listed wastes	3004(g)(6)(A)	Aug. 17, 1988, 53 FR 31138–222.
Nov. 8, 1988	Prohibition on wastes in existing surface impoundments unless double lined.	3005(j)	
June 8, 1989	Prohibition on land disposal of ⅔ of listed wastes	3004(g)(6)(B)	June 23, 1989, 54 FR 26594–652.
May 8, 1990	Prohibition on land disposal of 3/3 of listed wastes	3004(g)(6)(C)	June 1, 1990, 55 FR 22520–720.
Aug. 8, 1991	Prohibition on land disposal of K061 high zinc nonwastewaters.	3004(g)(6)(A)	Aug. 19, 1991, 56 FR 41178.
June 30, 1992	Surface Impoundment Retrofit	37282	Aug. 18, 1992, 57 FR 37282.
Nov. 9, 1992	Prohibition on land disposal of hazardous debris and newly listed wastes.	.....Do	Aug. 18, 1992, 57 FR 37282.
Feb. 18, 1993	Containment buildings	.....Do	Aug. 18, 1992, 57 FR 37282.
Aug. 9, 1993	Prohibition on land disposal of characteristic wastes whose treatment standards were vacated.	3004(g)(6)(c)	May 24, 1993, 58 FR 29887.
Dec. 19, 1994	Prohibition on land disposal of newly listed and identified wastes.	3004(g)(4)(C) and 3004(m)	Sept. 19, 1994, 59 FR 47982–48110.
Sept. 19, 1995	Establishment of treatment standards for D001 and D012–D017 wastes injected into nonhazardous deep wells.	3004(m)	Do.
Apr. 8, 1996	Prohibition on land disposal of K088 wastes	3004(m)	Apr. 8, 1996, 61 FR 15660.
July 8, 1996	Prohibition on land disposal of carbamate wastes	3004(m)	Apr. 8, 1996, 61 FR 15660.
July 8, 1996	Prohibition on land disposal of carbamate wastes (Vacated wastes).	3004(m)	June 17, 1997, 62 FR 32979
Sept. 6, 1996	Prohibition on land disposal of radioactive waste mixed with the newly listed or identified wastes, including soil and debris.	3004(g)(4)(C) and 3004(m)	Sept. 19, 1994, 59 FR 47982–48110.
Oct. 8, 1996	Prohibition on land disposal of K088 wastes	3004(m)	Apr. 8, 1998, 61 FR 15660.
Dec. 6, 1996	Air Emission Standards for Tanks, Surface Impoundments, and Containers.	3004(n)	Dec. 6, 1994, 59 FR 62896–62953.
Aug. 11, 1997	Prohibition on land disposal of wood preserving wastes	3004(g)(4)(c) and 3004 (m)	May 12, 1997, 62 FR 26040
Apr. 8, 1998	Prohibition on disposal of radioactive waste mixed with newly listed or identified wastes, including soil and debris (Vacated carbamate wastes).	3304(g)(4)(c) and 3004(m)	June 17, 1997, 62 FR 32979
Aug. 24, 1998	Prohibition on land disposal of newly identified wastes, including TC metal wastes and characteristic mineral processing wastes; treatment standards for contaminated soil..	3004(m)	May 26, 1998, 63 FR 28753
Sept. 4, 1998	Emergency Revision of the Land Disposal Restrictions (LDR) Phase III Treatment Standards for Listed Hazardous Wastes from Carbamate Production.	3004(m)	Sept. 4, 1998, 63 FR 47418.
Sept. 21, 1998	Prohibition on land disposal of K088 wastes, and prohibition on land disposal of radioactive waste mixed with K088 wastes, including soil and debris.	3004(g)(4)(C) and 3004(m)	Sept. 24, 1998, 63 FR 51267
Nov. 4, 1998	Prohibition on land disposal of newly listed and identified wastes..	3004(g)(4)(C) and 3004(m)	May 4, 1998, 63 FR 24596

TABLE 2—SELF-IMPLEMENTING PROVISIONS OF THE HAZARDOUS AND SOLID WASTE AMENDMENTS OF 1984—Continued

Effective date	Self-implementing provision	RCRA citation	FEDERAL REGISTER reference
Nov. 4, 1998	Prohibition on land disposal of radioactive waste mixed with the newly listed and identified wastes, including soil and debris.	3004(m) 3004(g)(4)(C) and 3004(m).	May 4, 1998, 63 FR 24596
Nov. 4, 1998	Prohibition on land disposal of organobromine waste (Vacated wastes).	3004(g)(4)(c) and 3004(m)	Mar. 17, 2000, 65 FR 14475
Nov. 4, 1998	Prohibition on land disposal of radioactive waste mixed with the newly listed and identified wastes, including soil and debris (Vacated organobromine wastes).	3004(m) and 3004(g)(4)(c)	Mar. 17, 2000, 65 FR 14475
Feb. 8, 1999	Prohibition on land disposal of newly listed and identified wastes; and prohibition on land disposal of radioactive waste mixed with the newly listed or identified wastes, including soil and debris.	3004(g)(4)(C) and 3004(m)	Aug. 6, 1998, 63 FR 42188
May 12, 1999	Prohibition on land disposal of radioactive waste and soil and debris mixed with wood preserving wastes.	3004(m)	May 12, 1997, 62 FR 26040.
May 26, 2000	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)..	3004(m)	May 26, 1998, 63 FR 28753
	Prohibition on underground injection of newly identified mineral processing wastes from titanium dioxide production..		
May 7, 2001	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..	3004(g)(4)(C) and 3004(m)	November 8, 2000, 65 FR 67132.
May 20, 2002	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.	3004(g)(4)(C) and 3004(m)	November 20, 2002, 66 FR 28299

[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 on GPO Access.

§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.

[48 FR 14248, Apr. 1, 1983, as amended at 50 FR 28753, July 15, 1985; 51 FR 33721, Sept. 22, 1986; 60 FR 33914, June 29, 1995]

§ 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) the State intends to employ in its program. Forms used by the State for hazardous waste management need not be identical to the forms used by EPA but should require the same basic information, except that the State RCRA program must require the use of EPA Manifest Forms 8700–22 and 8700–22A. Where the State preprints information on the Manifest forms, such forms must be submitted with the State's application for approval. Restrictions on preprinting by the States are identified in 40 CFR 271.10(h). Otherwise, the State need not provide copies of uniform national forms it intends to use but should note its intention to use such forms.

(e) A complete description of the State's compliance tracking and enforcement program.

(f) A description of the State manifest tracking system, and of the procedures the State will use to coordinate information with other approved State programs and the Federal program regarding interstate and international shipments.

(g) An estimate of the number of the following:

(1) Generators;

(2) Transporters; and

(3) On- and off-site storage, treatment and disposal facilities, and a brief description of the types of facilities and an indication of the permit status of these facilities.

(h) If available, an estimate of the annual quantities of hazardous wastes generated within the State; transported into and out of the State; and

stored, treated, or disposed of within the State: On-site; and Off-site.

[48 FR 14248, Apr. 1, 1983, as amended at 49 FR 10506, Mar. 20, 1984]

§ 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 statues 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.

NOTE: For example, EPA and the State and the permittee could agree that the State would issue a permit(s) identical to the outstanding Federal permit which would simultaneously be terminated.

(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 § 260.22, 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.

(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 include the use of manifest form as required by § 262.20(a) and § 262.21. 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.

(2) Initiate the manifest and designate on the manifest the storage, treatment, or disposal facility to which the waste is to be shipped.

(3) Ensure that all wastes offered for transportation are accompanied by the manifest, except in the case of shipments by rail or water specified in 40 CFR 262.23 (c) and (d) and § 262.20 (e) and (f). The State program shall provide requirements for shipments by rail or water equivalent to those under 40 CFR 262.23 (c) and (d) and § 263.20 (e) and (f).

(4) Investigate instances where manifests have not been returned by the owner or operator of the designated facility and report such instances to the State in which the shipment originated.

(g) In the case of interstate shipments for which the manifest has not been returned, the State program must provide for notification to the State in which the facility designated on the manifest is located and to the State in which the shipment may have been delivered (or to EPA in the case of unauthorized States).

(h) The State must follow the Federal manifest format (40 CFR 262.21) and may supplement the format to a limited extent subject to the consistency requirements of the Hazardous Materials Transportation Act (49 U.S.C. 1801 *et seq.*).

(1) A State that supplies the manifest form required by § 262.20(a) may preprint information on the form only as follows:

(i) In Items A and L, a State manifest document number; (EPA Form 8700–22, items A; EPA Form 8700–22A, item L);

(ii) In Items 11 and 28, a hazardous materials (HM) column for use in distinguishing between federally regulated wastes and other materials according to 49 CFR 172.201(a)(1);

(iii) Anywhere on the form, light organizational marks to indicate proper placement of characters or to facilitate data entry;

(iv) Anywhere in the margin of the form or on the back of the form, any information or instructions that do not require generators, transporters, or owners or operators of hazardous waste management facilities to supply additional information;

(v) In Item 16, reference to State laws or regulations following the federal certification; and

(vi) Abbreviations for headings in State optional information spaces (EPA Form 8700–22, Items A–H; and EPA Form 8700–22A, Items L–Q).

(2) In addition to the federally required information, both the State in which the generator is located and the State in which the designated facility is located may require completion of the following items:

(i) State manifest document number (EPA Form 8700–22, Item A; EPA Form 8700–22A Item L);

(ii) For generators, State generator identification numbers (EPA Form 8700–22, Item B; EPA Form 8700–22A, Item M);

(iii) For transporters, telephone numbers and State transporter identification numbers (EPA Form 8700–22, Items C, D, E and F; EPA Form 8700–22A, Items N, O, P and Q);

(iv) For owners and operators of hazardous waste management facilities, facility telephone number, and State facility identification numbers (EPA Form 8700–22, Items G and H);

(v) Codes associated with particular wastes (EPA Form 8700–22, Item I; EPA Form 8700–22A, Item R);

(vi) Codes associated with particular waste treatment, storage, or disposal methods (EPA Form 8700–22, Item K; EPA Form 8700–22A, Item T); and

(vii) Additional waste description associated with particular hazardous wastes listed on the Manifest. This information is limited to information such as chemical names, constituent percentages, and physical state (EPA Form 8700–22, Item J; EPA Form 8700–22A, Item S).

(3) No State, however, may impose enforcement sanctions on a transporter during transportation of the shipment for failure of the form to include preprinted information or optional State information items.

(i) Unless otherwise provided in part 271, the State program shall have standards for generators which are at least as stringent as any amendment to 40 CFR Part 262 which is promulgated after July 1, 1984.

[48 FR 14248, Apr. 1, 1983, as amended at 48 FR 30114, June 30, 1983; 49 FR 10506, Mar. 20, 1984; 49 FR 11180, Mar. 26, 1984; 51 FR 28685, Aug. 8, 1986; 51 FR 33722, Sept. 22, 1986; 56 FR 43705, Sept. 4, 1991]

§ 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 the authority to require and shall require all transporters to comply with recordkeeping requirements equivalent to those found at 40 CFR 263.22. States must require that records be kept at least 3 years.

(c) The State must require the transporter to carry the manifest during transport, except in the case of shipments by rail or water specified in 40 CFR 263.20 (e) and (f) and to deliver waste only to the facility designated on the manifest. The State program shall provide requirements for shipments by rail or water equivalent to those under 40 CFR 263.20 (e) and (f). For exports of hazardous waste, the State must require the transporter to refuse to accept hazardous waste for export if he knows the shipment does not conform to the EPA Acknowledgment of Consent, to carry an EPA Acknowledgment of Consent to the shipment, and to provide a copy of the manifest to the U.S. Customs official at the point the waste leaves the United States.

(d) For hazardous wastes that are discharged in transit, the State program must require that transporters notify appropriate State, local, and Federal agencies of such discharges, and clean up such wastes, or take action so that such wastes do not present a hazard to human health or the environment. These requirements shall be equivalent

to those found at 40 CFR 263.30 and 263.31.

(e) Unless otherwise provided in part 271, the State program shall have standards for transporters which are at least as stringent as any amendment to 40 CFR Part 263 which is promulgated after July 1, 1984.

[48 FR 14248, Apr. 1, 1983, as amended at 51 FR 28686, Aug. 8, 1986; 51 FR 33722, Sept. 22, 1986]

§ 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, recordkeeping, and reporting;

(i) Compliance with the manifest system, including the requirements that facility owners or operators return a signed copy of the manifest to the generator to certify delivery of the hazardous waste shipment;

(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.

[48 FR 14248, Apr. 1, 1983, as amended at 51 FR 33722, Sept. 22, 1986]

§ 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)—(Public 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.

[48 FR 14248, Apr. 1, 1983; 48 FR 30115, June 30, 1983]

§ 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 noncompliance 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 effort 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 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 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 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.

(d) 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.

(Clean Water Act (33 U.S.C. 1251 *et seq.*), Safe Drinking Water Act (42 U.S.C. 300f *et seq.*), Clean Air Act (42 U.S.C. 7401 *et seq.*), Resource Conservation and Recovery Act (42 U.S.C. 6901 *et seq.*); secs. 1006, 2002(a), 3006 and 7004 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, (42 U.S.C. 6905, 6912(a), 6926 and 6974))

[48 FR 14248, Apr. 1, 1983, as amended at 48 FR 39622, Sept. 1, 1983; 49 FR 7372, Feb. 29, 1984; 58 FR 26424, May 3, 1993; 59 FR 10559, Mar. 4, 1994; 63 FR 56735, Oct. 22, 1998]

§ 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 § 271.24 is not available to demonstrate compliance with this section.

[48 FR 14248, Apr. 1, 1983, as amended at 50 FR 28754, July 15, 1985; 51 FR 33722, Sept. 22, 1986]

§ 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.

[48 FR 14248, Apr. 1, 1983, as amended at 50 FR 28754, July 15, 1985; 65 FR 30913, May 15, 2000]

§ 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.

[48 FR 14248, Apr. 1, 1983; 48 FR 30115, June 30, 1983, as amended at 60 FR 33914, June 29, 1994]

§ 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 the FEDERAL REGISTER 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 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 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 program modifications must be completed and submitted by the deadlines speciflines specified in paragraph (e) of this section or by the date of final authorization, whichever is later.

(g)(1) States that are unable to modify 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 extension of the program modification deadline under paragraph (e)(3) and has made dils to revise its program 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 deadline granted under paragraph (e)(3),

(iv) The schedule of compliance for program revisions does not exceed one year from the extended program modification 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 Administrator may initiate program withdrawal procedures pursuant to §§ 271.22 and 271.23.

(h) *Abbreviated authorization revisions.* This abbreviated procedure applies to State Program revisions for the Federal rulemakings listed in Table 1 of this section. The abbreviated procedures 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 authority 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 includes references to the specific statutes, administrative regulations and where appropriate, judicial decisions. State statutes and regulations cited in the statement shall be lawfully adopted at the time the statement is signed and fully effective by the time the program 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 authorization to implement a rule specified in Table 1 of this section, if the Administrator determines that the application 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 determination. The State will address all deficiencies and resubmit the application to EPA for review.

(3) For purposes of this section an 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 program revisions are not lawfully adopted at the time the statement is signed or fully effective by the time the program revisions are approved;

(iii) In the statement, the citations to the specific statutes, administrative regulations and where appropriate, judicial decisions are not included or incomplete; 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 publish 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

Title of regulation	Promulgation date	Federal Register reference
Land Disposal Restrictions Phase II—the Universal Treatment Standards in §§ 268.40 and 268.48 of this chapter only.	Sept. 19, 1994	59 FR 47982

[48 FR 14248, Apr. 1, 1983, as amended at 51 FR 7542, Mar. 4, 1986; 51 FR 33722, Sept. 22, 1986; 63 FR 65947, Nov. 30, 1998]

§ 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 relevent 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 with drawal 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 22.03 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 makng 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.

§ 271.24 Interim authorization under section 3006(g) of RCRA.

(a) Any State which is applying for or has been granted final authorization pursuant to section 3006(b) of RCRA may submit to the Administrator evidence that its program contains (or has been amended to include) any requirement which is substantially equivalent to a requirement identified in § 271.1(j) of this part. Such a State may request interim authorization under section 3006(g) of RCRA to carry out the State requirement in lieu of the Administrator carrying out the Federal requirement.

(b) The applications shall be governed by the procedures for program revisions in § 271.21(b) of this part.

(c) Interim authorization pursuant to this section expires on January 1, 2003, except that interim authorization for the revised Corrective Action Management Unit rule (except 40 CFR 264.555) promulgated on January 22, 2002 and cited in Table 1 in §271.1 expires on August 30, 2004 if the State has not submitted an application for final authorization.

[57 FR 60132, Dec. 18, 1992, as amended at 67 FR 3029, Jan. 22, 2002]

§ 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) 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.

(h)(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 266, 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]

Former provisions of 40 CFR part 266, subpart E (1992)	Recodified provisions within 40 CFR part 279
Sec. 266.40(a)	Sec. 279.60(a)
Sec. 266.40(b)	Sec. 279.1 [1]
Sec. 266.40(c) [rebuttable presumption].	Sec. 279.63(a), (b) and (c) [2]
Sec. 266.40(d)(1) and (2)	Sec. 279.10(b)(2) and (3)
Sec. 266.40(e)	Sec. 279.11
	Sec. 279.60(c)
Sec. 266.41(a)(1) and (2)	Sec. 279.71
266.41(b)(1) and (2)	Sec. 279.61(a)
	279.23(a)
Sec. 266.42(a)	Sec. 279.60(a)
Sec. 266.42(b)	Sec. 279.70(a)
Sec. 266.42(c)	Sec. 279.60(a)

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]

Former provisions of 40 CFR part 266, subpart E (1992)	Recodified provisions within 40 CFR part 279
Sec. 266.43(a)(1)	Sec. 279.70(a) and (b)(1)
Sec. 266.43(a)(2)	Sec. 279.70(b)(2)
Sec. 266.43(b)(1)	Sec. 279.72(a)
Sec. 266.43(b)(2)	Sec. 279.71
Sec. 266.43(b)(3)	Sec. 279.73(a)
Sec. 266.43(b)(4)(i–v)	Sec. 279.74(a)
Sec. 266.43(b)(4)(vi)	not included
Sec. 266.43(b)(5)(i) and (ii)	Sec. 279.75(a)
Sec. 266.43(b)(6)(i)	Sec. 279.74(b) and (c)
	279.72(b)
Sec. 266.43(b)(6)(ii)	Sec. 279.74(a)
	Sec. 279.75(b)
Sec. 266.44(a)	Sec. 279.61(a)
	Sec. 279.23(a)
Sec. 266.44(b)	Sec. 279.62(a)
Sec. 266.44(c)	Sec. 279.66(a)
Sec. 266.44(d)	Sec. 279.72(a)
Sec. 266.44(e)	Sec. 279.65(a) and (b)
	Sec. 279.66(b)
	Sec. 279.72(b)

[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.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26424, May 3, 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

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272.1150 State authorization.
272.1151 State-administered program: Final authorization.
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272.1301 State-administered program; Final authorization.
272.1302–272.1349 [Reserved]

Subpart BB—Montana

272.1350 State authorization.
272.1351 State-administered program: Final authorization.
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

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272.1601 New Mexico State-administered program: Final authorization.
272.1602–272.1649 [Reserved]

Subpart HH—New York

272.1650–272.1699 [Reserved]

Subpart II—North Carolina

272.1700–272.1749 [Reserved]

Subpart JJ—North Dakota

272.1750–272.1799 [Reserved]

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272.1800 State authorization.
272.1801 State-administered program; Final authorization.
272.1802–272.1849 [Reserved]

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272.2000–272.2049 [Reserved]

Subpart PP—South Carolina

272.2050–272.2099 [Reserved]

Subpart QQ—South Dakota

272.2100–272.2149 [Reserved]

Subpart RR—Tennessee

272.2150–272.2199 [Reserved]

Subpart SS—Texas

272.2200 [Reserved]
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Subpart TT—Utah

272.2250 [Reserved]
272.2251 Utah State-Administered program: Final authorization.
272.2252–272.2299 [Reserved]

Subpart UU—Vermont

272.2300–272.2349 [Reserved]

Subpart VV—Virginia

272.2350–272.2399 [Reserved]

Subpart WW—Washington

272.2400–272.2449 [Reserved]

Subpart XX—West Virginia

272.2450–272.2499 [Reserved]

Subpart YY—Wisconsin

272.2500 [Reserved]
272.2501 Wisconsin State-administered program; final authorization.
272.2502–272.2549 [Reserved]

Subpart ZZ—Wyoming

272.2550–272.2599 [Reserved]

Subpart AAA—Guam

272.2600–272.2649 [Reserved]

Subpart BBB—Puerto Rico

272.2650–272.2699 [Reserved]

Subpart CCC—Virgin Islands

272.2700–272.2749 [Reserved]

Subpart DDD—American Samoa

272.2750–272.2799 [Reserved]

Subpart EEE—Commonwealth of the Northern Mariana Islands

272.2800–272.2849 [Reserved]

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 Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC. 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]

§§ 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.

(i) EPA Approved Arizona Statutory Requirements Applicable to the Hazardous Waste Management Program, June 1995.

(ii) EPA Approved Arizona Regulatory Requirements Applicable to the Hazardous Waste Management Program, June 1995.

(2) The following statutes and regulations concerning State enforcement, although not incorporated by reference, are part of the authorized State program:

(i) *Arizona Laws Relating to Environmental Quality*, 1993 edition, reprinted from *Arizona Revised Statutes*, Title 49, Sections 49–141 through 49–144; 49–261 through 49–265; 49–287; 49–923 through 49–926; 49–928; and 49–943.

(ii) *Arizona Administrative Code*, Title 18, Chapter 8, December 31, 1994, Sections R18–8–260.D; R18–8–271.F through R18–8–271.Q; and R–18–8–280.

(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), Arkansas has 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 August 23, 1985, May 29, 1990, November 18, 1991, December 4, 1992 and December 21, 1994.

(b) *State Statutes and Regulations*. (1) The Arkansas 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.

(i) EPA Approved Arkansas Statutory Requirements Applicable to the Hazardous Waste Management Program, dated March, 1995.

(ii) EPA Approved Arkansas Regulatory Requirements Applicable to the Hazardous Waste Management Program, dated March, 1995.

(2) The following statutes and regulations concerning State enforcement, although not incorporated by reference, are part of the authorized State program:

(i) Arkansas Hazardous Waste Management Act of 1979, as amended, Arkansas Code of 1987 Annotated (A.C.A.), 1993 Replacement, Sections 8–7–204 (except 8–7–204(e)(3)(B)), 8–7–205 through 8–7–214, 8–7–217, 8–7–218, 8–7–220, 8–7–222, 8–7–224 and 8–7–225(b) through 8–7–225(d).

(ii) Arkansas Resource Reclamation Act of 1979, as amended, Arkansas Code of 1987 Annotated (A.C.A.), 1993 Replacement, Sections 8–7–302(3), 8–7–303, 8–7–308(1), and 8–7–308(4).

(iii) Arkansas Department of Pollution Control and Ecology (ADPC&E) Regulation No. 23, Hazardous Waste Management, as amended August 27, 1993, effective September 21, 1993, chapter two, sections 3a(11), 3b, 3c, 4, 6a, 6d through 6m, 7, 8, 12b(7), 12c (except

12(c)(10) and 12(c)(11)), 12d, 12e, 14a, 17; chapter three, sections 19 and 20; chapter five, section 26.

(iv) Arkansas Department of Pollution Control and Ecology, Regulation No. 7, Civil Penalties, May 25, 1984.

(v) Arkansas Department of Pollution Control and Ecology, Regulation No. 8, Administrative Procedures, July 6, 1984.

(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) Arkansas Hazardous Waste Management Act, as amended, Arkansas Code of 1987 Annotated (A.C.A.), 1993 Replacement, Section 8–7–226.

(ii) Arkansas Department of Pollution Control and Ecology Regulation No. 23, Hazardous Waste Management, as amended as amended August 27, 1993, effective September 21, 1993, chapter two, sections 2a(5) (only the second sentence), 2b(11), 3a(10), 11, 16a, and portions of sections 16c and 16d that refer to PCBs; and chapter four, section 23.

(4) *Unauthorized State Provisions:* Arkansas has adopted but is not authorized for the September 1, 1988 (53 FR 33938) and the July 1, 1991 (56 FR 30200) amendments to Parts 264 and 265 addressing liability requirements. Thus, the portions of the Arkansas Hazardous Waste Management code, chapter 2, sections 3a(5) and 3a(6) adopting the September 1, 1988 and the July 1, 1991 amendments are not part of the State's authorized program and are not Federally enforceable.

(5) *Memorandum of Agreement.* The Memorandum of Agreement between EPA Region 6 and the State of Arkansas signed by the EPA Regional Administrator on November 3, 1994 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 Arkansas on July 9, 1984 and revisions, supplements and addenda to that Statement dated September 24, 1987, February 24, 1989, December 11, 1990, May 7, 1992, and by the Independent Legal Counsel on May 10, 1994 are 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*.

[60 FR 32112, June 20, 1995]

§§ 272.202–272.249 [Reserved]

Subpart F—California

§§ 272.250–272.299 [Reserved]

Subpart G—Colorado

§§ 272.300–272.349 [Reserved]

Subpart H—Connecticut

§§ 272.350–272.399 [Reserved]

Subpart I—Delaware

§ 272.400 State authorization.

(a) The State of Delaware 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 (RCRA), 42 U.S.C. 6921 *et seq*., subject to the Hazardous 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(b) 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.)

(2) The following statutes and regulations, although not incorporated by reference, are part of the authorized State program.

(i) 7 Delaware Code Annotated sections 6308 and 6309 (1974 and Supp. 1983).

(ii) Delaware Administrative Procedures Act, 7 Delaware Code Annotated sections 10101 through 10161 (1974 and Supp. 1983).

(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.

(c) *Statement of Legal Authority.* (1) ''Attorney General's Statement for Final Authorization'', signed by the Attorney General of Delaware of July 26, 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.* (1) The Florida 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.*

(i) EPA Approved Florida's Statutory Requirements Applicable to the Hazardous Waste Management Program, dated December 1997.

(ii) EPA Approved Florida's Regulatory Requirements Applicable to the Hazardous Waste Management Program, dated December 1997.

(2) The following statutes and regulations concerning State procedures and enforcement, although not incorporated by reference, are part of the authorized State program:

(i) Florida Statutes, 1993, Chapter 119: 119.01; 119.011; 119.0115 through 119.031; 119.041; 119.05; 119.06; 119.07(1), (2), (3)(a)–(j), (3)(k)(1) first sentence, (3)(l)–(u), (4), (5), and (8); 119.072; 119.08(1)(a), (2) and (3); 119.085; 119.09; 119.092; 119.10; and 119.11 through 119.14.

(ii) Florida Statutes, 1993, Chapter 120: 120.53; 120.57; 120.59; 120.68; and 120.69.

(iii) Florida Statutes, 1993, Chapter 403: 403.021(1)–(9); 403.051(1) and (2); 403.061(21); 403.087(1) second and third sentences, (2)–(4), and (8); 403.0875; 403.091; 403.121; 403.131; 403.141(1) and (2); 403.151; 403.161; 403.201(1)–(3); 403.412; 403.702; 403.703(1); 403.704 (except (8), (11), (20)–(23), (25), and (31)); 403.721(1); 403.721(2)–(4) (except (4)(a)); 403.721(5); 403.721(6)(a)–(g), (j), (k); 403.721(7); 403.722(7) and (9)–(11); 403.7222(3); 403.724(3)–(6); 403.726 (except 403.726(3)); 403.73; 403.7545; 403.8055; and 403.814.

(iv) Florida Statutes, 1994 Supplement to 1993, Chapter 403: 403.061(14); 403.088; 403.707; 403.722(12); 403.7222(3); and 403.727.

(v) Florida Administrative Code, Chapter 62–4, effective July 4, 1995: 62–4.050(1)–(3); 62–4.070(4); and 62–4.070(5).

(vi) Florida Administrative Code, Chapter 62–103, effective October 20, 1996: 62–103.150; and 62–103.155.

(vii) Florida Administrative Code, Chapter 62–730, effective September 7, 1995: 62–730.020(2); 62–730.184; 62–730.200(3); 62–730.220(4); 62–730.220(9); 62–730.231(10); 62–730.240(3); and 62–730.310.

(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.

(ii) Florida Administrative Code, Chapter 62–4, effective July 4, 1995: 17–4.050(4)(k), (n)–(p), (r) and (s)–(x); 62–4.050(5)–(7).

(iii) Florida Administrative Code, Chapter 62–730, effective September 7, 1995: 62–730.170(2) and (3);62–730.180(10); 62–730.290 (only the phrase ''and submittal of the appropriate permit modification fee'').

(4) Unauthorized State Provisions. The State's adoption of the following Federal rules is not approved by EPA and are, therefore, not enforceable:

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 32688	7/1/91
Burning of Hazardous Waste in Boilers and Industrial Furnaces; Technical Amendments II (Checklist 96).	56 FR 42504	8/27/91
Coke Ovens Administrative Stay (Checklist 98)	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

Federal requirement	Federal Register reference	Publication date
Recycled Used Oil Management Standards (Checklist 112)	57 FR 41566: Amendments to 40 CFR Parts 260, 261, and 266.	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 261, 264, and 265.	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*.

(6) Statement of Legal Authority. ''Attorney General's Statement for Final Authorization'' certifications signed by the General Counsel of Florida on June 21, 1984; March 12, 1987; June 16, 1988; February 21, 1989; May 30, 1989; June 13, 1990; May 28, 1991; October 9, 1991; July 14, 1992; September 24, 1993; December 20, 1993; February 27, 1994; January 25, 1996; and May 20, 1996, is referenced as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921.

(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*.

[63 FR 2898, Jan. 20, 1998]

§§ 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.

§ 272.651 Idaho State-administered program: Final authorization.

(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, and January 19, 1999.

(b) *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*.

(i) The EPA Approved Idaho Statutory Requirements Applicable to the Hazardous Waste Management Program, dated April 1999.

(ii) The EPA Approved Idaho Regulatory Requirements Applicable to the

Hazardous Waste Management Program, dated April 1999.

(2) The following statutes and regulations concerning State procedures and enforcement, although not incorporated by reference, are part of the authorized State program:

(i) Idaho Code (I.C.) containing the General Laws of Idaho Annotated, Volume 7A, Title 39, Chapter 44, ''Hazardous Waste Management'', published in 1993 by the Michie Company, Law Publishers, Charlottesville, Virginia: sections 39–4404; 39–4405 (except 39–4405(8)); 39–4406; 39–4407; 39–4408(4); 39–4409(2) (except first sentence); 39–4409(3); 39–4409(4) (first sentence); 39–4410; 39–4412 through 39–4416; 39–4418; 39–4419; 39–4421; 39–4422; and 39–4423(3)(a)&(b).

(ii) 1996 Cumulative Pocket Supplement to the Idaho Code, Volume 7A, Title 39, Chapter 44, ''Hazardous Waste Management'', published in 1996 by the Michie Company, Law Publishers, Charlottesville, Virginia: sections 39–4411(1); 39–4411(3); and 39–4411(6).

(iii) Idaho Code (I.C.) containing the General Laws of Idaho Annotated, Volume 7A, Title 39, Chapter 58, ''Hazardous Waste Facility Siting Act'', published in 1993 by the Michie Company, Law Publishers, Charlottesville, Virginia: sections 39–5804; 39–5809; 39–5810; 39–5813(2); 39–5814; 39–5816; 39–5817; and 39–5818(1).

(iv) Idaho Code (I.C.) containing the General Laws of Idaho Annotated, Volume 2, Title 9, Chapter 3, ''Public Writings'', published in 1990 by the Michie Company, Law Publishers, Charlottesville, Virginia: sections 9–337(10); 9–337(11); 9–338; 9–339; and 9–344(2).

(v) 1994 Cumulative Pocket Supplement to the Idaho Code (I.C.), Volume 2, Title 9, Chapter 3, ''Public Writing'', published in 1994 by the Michie Company, Law Publishers, Charlottesville, Virginia: sections 9–340 and 9–343.

(vi) Idaho Department of Health and Welfare Rules and Regulations, Idaho Administrative Code, IDAPA 16, Title 1, Chapter 5, ''Rules and Standards for Hazardous Waste'', as published on July 1, 1997: sections 16.01.05.000; 16.01.05.356.02 through 16.01.05.356.05; 16.01.05.800; 16.01.05.850; 16.01.05.996; 16.01.05.997; and 16.01.05.999.

(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) Idaho Code containing the General Laws of Idaho Annotated, Volume 7A, Title 39, Chapter 44, ''Hazardous Waste Management'', published in 1993 by the Michie Company, Law Publishers, Charlottesville, Virginia: sections 39–4428 and 39–4429.

(ii) 1996 Cumulative Pocket Supplement to the Idaho Code, Volume 7A, Title 39, Chapter 44, ''Hazardous Waste Management'', published in 1994 by the Michie Company, Law Publishers, Charlottesville, Virginia: sections 39–4403 (6)&(14) and 39–4427.

(iii) Idaho Code containing the General Laws of Idaho Annotated, Volume 7A, Title 39, Chapter 58, ''Hazardous Waste Siting Act'', published in 1993 by the Michie Company, Law Publishers, Charlottesville, Virginia: section 39–5813(3).

(iv) Idaho Department of Health and Welfare Rules and Regulations, Idaho Administrative Code, IDAPA 16, Title 1, Chapter 5, ''Rules and Standards for Hazardous Waste'', as published on July 1, 1997: sections 16.01.05.355; and 16.01.05.500.

(4) *Memorandum of Agreement*. The Memorandum of Agreement between EPA Region 10 and the Division of Environmental Quality, signed by the EPA Regional Administrator on October 6, 1998, 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 Idaho on July 5, 1988 and revisions, supplements and addenda to that Statement dated July 3, 1989, February 13, 1992, December 29, 1994, September 16, 1996, and October 3, 1997 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*.

[64 FR 34136, June 25, 1999]

§§ 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 42 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 30069b) 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.

[54 FR 37651, Sept. 12, 1989, as amended at 57 FR 3723, Jan. 31, 1992; 57 FR 45576, Oct. 2, 1992]

§ 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*.

(i) Illinois Administrative Code, Title 35, Part 702, Sections 702.101–702.104, 702.110–702.187; Part 703, Sections 703.100–703.126, 703.140–703.246; Part 709, Sections 709.102–709.105, 709.201, 709.301, 709.302, 709.401, 709.501–709.603; Part 720, Sections 720.101–720.122, Part 720 Appendix A; Part 721, Sections 721.101–721.133, Part 721 Appendices A, B, C, G, H, I, J, Z; Part 722, Sections 722.110–722.151, Part 722 Appendix A; Part 723, Sections 723.110–723.131; Part 724, Sections 724.101–724.321, 724.326–724.351, 724.354–724.451, Part 724 Appendices A, D, E; Part 725, Sections 725.101–725.248, 725.270–725.530, Part 725 Appendices, A, C, D, E; Part 726, Sections 726.120–726.180; Part 728; and Part 729, Sections 729.100–729.321; (Illinois Administrative Code, January 1, 1985, as amended January 1, 1986, January 1, 1987, and January 1, 1988).

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 Office of Federal Register, 800 North Capital Street, NW., suite 700, Washington, DC.

(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 111½, 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.

(ii) Illinois Administrative Code, Title 35 Part 700, Sections 700.101–700.504; Part 702 Sections 702.105–702.109; Part 705, Section 705.101–705.212; Part 720, Sections 720.140–720.141; and Title 2, Part 1826, Sections 1826.101–1826.503, Section 1826 Appendices A and B. (Illinois Administrative Code, January 1, 1985, as amended January 1, 1986, January 1, 1987, and January 1, 1988).

(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*.

(c) *Statement of Legal Authority*. The Illinois Attorney General's Statements for final authorization signed by the Attorney General of Illinois on June 4, 1985, July 15, 1986, May 26, 1988, and February 23, 1990 are 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*.

[54 FR 37651, Sept. 12, 1989, as amended at 57 FR 3723, Jan. 31, 1992; 57 FR 45576, Oct. 2, 1992]

§§ 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.

(i) The EPA approved Authorized Indiana Statutory Requirements Applicable to the Hazardous Waste Management Program, dated March 2001.

(ii) The EPA approved Indiana Regulatory Requirements Applicable to the Hazardous Waste Management Program, dated March 2001.

(2) The following statutes and regulations concerning State procedures and enforcement, although not incorporated by reference, are part of the authorized State program:

(i) Annotated Indiana Code, 1998 edition, Title 13, Article 4–21.5, 5–14–3–2, 13–11–2, 13–14–2–2, 13–14–9, 13–14–10, 13–15–2, 13–19–1, 13–19–2, 13–20, 13–22–1, 13–22–3, 13–22–5 through 13–22–14, 13–23, 13–30, and 23–1–16.

(ii) Indiana Administrative Code, as amended, 1996 edition, certified October 24, 1995, 2000 cumulative supplement, certified November 30, 1999, sections 329 IAC 3.1–1–1 through 3.1–1–6; 3.1–1–8 through 3.1–1–14; 3.1–2–1 through 3.1–2–16; 3.1–3–1 through 3.1–3–9; 3.1–4–2 through 3.1–4–26; 3.1–13–5; 3.1–13–8 through 3.1–13–17; 3.1–14–2; 3.1–14–3; and 13–1–3 through 13–1–6.

(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:

Federal requirement	**Federal Register** reference	Publication date
1. Hazardous Waste Management System; Testing and Monitoring Activities (Checklist 158)	62 FR 32452	June 13, 1997.
2. Kraft Mill Stream Stripper Condensate Exclusion (Checklist 164)	63 FR 18504	April 15, 1998.
3. Recycled Used Oil Management Standards; Technical Correction and Clarification (Checklist 166) as amended (Checklist 166.1).	63 FR 24963	May 6, 1998.
4. Bevill Exclusion Revisions and Clarification (Checklist 167E)	63 FR 37780	July 14, 1998.
5. Exclusion of Recycled Wood Preserving Wastewaters (Checklist 167F)	63 FR 28556	May 26, 1998.
6. Hazardous Waste Combustors Revised Standards (Checklist 168)	63 FR 33782	June 19, 1998.
7. Universal Waste Rule; Technical Amendment (Checklist 176)	63 FR 71225	December 24, 1998.

(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:

Federal requirement	**Federal Register** reference	Publication date
1. HSWA Codification Rule 2; Corrective Action for Injection Wells (Checklist 44C)	52 FR 45788	December 1, 1987.
2. Burning of Hazardous Waste in Boilers and Industrial Furnaces (Checklist 85)	56 FR 7134	February 21, 1991.
3. Burning of Hazardous Waste in Boilers and Industrial Furnaces; Corrections and Technical Amendments (Checklist 94).	56 FR 32688	July 17, 1991.
4. Burning of Hazardous Waste in Boilers and Industrial Furnaces; Technical Amendments II (Checklist 96)	56 FR 42504	August 27, 1991.
5. Burning of Hazardous Waste in Boilers and Industrial Furnaces; Technical Amendment III (Checklist 111)	57 FR 38558	August 25, 1992.
6. Burning of Hazardous Waste in Boilers and Industrial Furnaces; Technical Amendment IV (Checklist 114)	57 FR 44999	September 30, 1992.
7. Requirements for Preparation, Adoption, and Submittal of Implementation Plans (Checklist 125)	58 FR 38816	July 20, 1993.
8. Burning of Hazardous Waste in Boilers and Industrial Furnaces (Checklist 127)	58 FR 59598	November 9, 1993.
9. Land Disposal Restrictions-Phase IV: Treatment Standards for Wood Preserving Wastes, Paperwork Reduction and Streamlining, Exemptions from RCRA for Certain Processed Materials; and Miscellaneous Hazardous Waste Provisions (Checklist 157).	62 FR 25998	May 12, 1997.
10. Hazardous Waste Management System; Carbamate Production, Identification and Listing of Hazardous Waste; Land Disposal Restrictions (Checklist 159).	62 FR 32974	June 17, 1997.
11. Land Disposal Restrictions-Phase III—Emergency Extension of the K088 National Capacity Variance (Checklist 160).	62 FR 37694	July 14, 1997.
12. Second Emergency Revision of the Land Disposal Restrictions (LDR) Treatment Standards for Listed Hazardous Wastes from Carbamate Production (Checklist 161).	62 FR 45568	August 28, 1997.
13. Organic Air Emission Standards for Tanks, Surface Impoundments, and Containers; Clarification and Technical Amendment (Checklist 163).	62 FR 64636	December 8, 1997.
14. Land Disposal Restrictions-Phase IV: Treatment Standards for Metal Wastes and Mineral Processing Wastes (Checklist 167A), Hazardous Soils Treatment Standards and Exclusions (Checklist 167B), and Corrections (Checklist 167C) as amended (Checklist 167C.1).	63 FR 28556 63 FR 31266	May 26, 1998. June 8, 1998.
15. Petroleum Refining Process (Checklist 169) as amended (Checklist 169.1)	63 FR 42110 63 FR 54356	August 6, 1998. October 9, 1998.
16. Land Disposal Restrictions-Phase IV (Checklist 170)	63 FR 46332	August 31, 1998.
17. Emergency Revisions of the Land Disposal Restrictions Treatment Standards (Checklist 171)	63 FR 47409	September 4, 1998.
18. Emergency Revision of the Land Disposal Restrictions Treatment Standards (Checklist 172)	63 FR 48124	September 9, 1998.
19. Land Disposal Restrictions Treatment Standards (Spent Potliners) (Checklist 173)	63 FR 51254	September 24, 1998.

(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 that Statement dated August 26, 1986, June 1, 1987, December 15, 1987, March 25, 1988, July 22, 1988, December 15, 1989, May 29, 1996, March 24, 1997, and January 31, 2000 are 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*.

[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.

(a) Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b), Louisiana has final authorization for the following elements as submitted to EPA in Louisiana's base program application for final authorizations which was approved by EPA effective on February 7, 1985. Subsequent program revision applications were approved effective on January 29, 1990, October 25, 1991, January 23, 1995, March 8, 1995, January 2, 1996, June 11, 1996 and March 16, 1998.

State Statutes and Regulations

(1) The Louisiana 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*.

(i) EPA Approved Louisiana Statutory Requirements Applicable to the Hazardous Waste Management Program, dated June, 1997.

(ii) EPA Approved Louisiana Regulatory Requirements Applicable to the Hazardous Waste Management Program, dated June, 1997.

(2) The following statutes and regulations concerning State procedures and enforcement, although not incorporated by reference, are part of the authorized State program:

(i) Louisiana Statutes Annotated, Revised Statutes, 1989, Volume 17B, Subtitle II of Title 30, Louisiana Environmental Quality Act, 1989: Chapter 2, Sections 2011.A(1)&(2), 2011.B, 2011.C (except 2011.C(1)(a)), 2011.D (introductory paragraph), 2011.D(1)–(3), 2011.D(5)–(9), 2011.D(13)–(15), 2011.D(17)&(18), 2011.D(21) (except 2011.D(21)(e)), 2011.D(22), 2011.E–.G, 2012 (except 2012.F(4) and 2012.G), 2013, 2014.A, 2019.A&.B, 2020 through 2021, 2023, 2024.B–.C, 2025.A–.D, 2025.E(2)–(5), 2025.F (introductory paragraph), 2025.F(1)–(4), 2025.G–.I, 2026, 2027.C, 2028, 2029, 2033, 2037; Chapter 3, Sections 2054.B(1), 2054.B(2)(a); Chapter 9, sections 2174, 2175, 2180.A (introductory paragraph), 2180.A(2)–(8), 2180.B–.C, 2181–2182, 2183.C, 2183.F, 2183.G (except 2183.G(3)), 2183.H, 2186, 2187, 2188.A, 2188.C, 2189, 2190.A–.D, 2191.A–.C, 2192.A, 2192.B (except 2192.B(4)), 2192.C, 2196, 2199 through 2200, 2203.B–.C, 2204.A(2), and 2204.B.

(ii) Louisiana Statutes Annotated, Revised Statutes, 1992 Cumulative Annual Pocket Part, Volume 17B, Subtitle II of Title 30, Louisiana Environmental Quality Act: Chapter 2, section 2011.C(1)(a), 2011.D(21)(e), 2012.F(4), 2012.G, 2018, 2019.C, 2022 (except the first sentence of 2022.A), 2024.A&.D, 2025.E(1), 2025.J, 2027.A&.B; Chapter 9, sections 2180.A(1), 2183.G(3), 2192.B(4).

(iii) Louisiana Administrative Code, Title 33, Part V, Hazardous Waste and Hazardous Materials, Amendments through June 1995: Chapter 1, sections 101, 107.A–.C; Chapter 3, Sections 301.A&.B, 311.A, 311.C, 315 (introductory paragraph), 323.B.3; Chapter 5, Section 503; Chapter 7, Sections 703, 705 and 707 through 721.

(iv) Louisiana Administrative Code, Title 33, Part V, Hazardous Waste and Hazardous Materials, Amendments for July 1995—March 1996: Chapter 3, Section 323.B.4.d. & e.

(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, 1989, Volume 17B, Subtitle II of Title 30, Louisiana Environmental Quality Act, 1989: Chapter 2, sections 2014.B.–D.

(ii) Louisiana Statutes Annotated, Revised Statutes, 1992 Cumulative Annual Pocket Part, Volume 17B, Subtitle II of Title 30, Louisiana Environmental Quality Act: Sections 2178 and 2197.

(iii) Louisiana Administrative Code, Title 33, Part V, Hazardous Waste and Hazardous Materials, Amendments through June 1995: 327, 1313, and Chapter 51.

(4) Unauthorized State Amendments. 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 § 272.951(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 are available as a separate document, Addendum to the EPA-Approved Louisiana Regulatory and Statutory Requirements Applicable to the Hazardous Waste Management Program, June, 1997. Copies of the document can be obtained from EPA Region 6, 1445 Ross Avenue, Dallas, Texas 75202–2733, Phone number: (214) 665–8533.

State provision	Effective date of authorized provision	Unauthorized state amendments	
		State reference	Effective date
LAC § 109 ''Industrial furnace'' introductory paragraph	November 20, 1988	LR 18:1375	December 20, 1992.
LAC § 303.K.1 (previously LHWR § 3.2(k)(1))	July 20, 1984	LR 14:790	November 20, 1988.
LAC § 901 (LHWR § 6.1)	March 20, 1984	LR 20:1000	September 20, 1994.
LAC § 1111.B.1.c (previously LHWR § 7.6(b)(1))	March 20, 1984	LR 16:220	March 20, 1990.
LAC § 1113 (previously LHWR § 7.7)	March 20, 1984	LR 16:220	March 20, 1990.
		LR 20:1000	September 20, 1994.
		LR 20:1109	October 20, 1994.
LAC § 2511.B (previously LHWR § 14.6(b))	March 20, 1984	LR 16:1057	December 20, 1990.
LAC § 3105.A	November 21, 1988	LR 18:1256	November 20, 1992.
		LR 18:1375	December 20, 1992.
		LR 20:1000	September 20, 1994.
LAC § 3309 (previously LHWR § 18.5)	July 20, 1984	LR 16:614	July 20, 1990.
LAC § 3707.F.1 (previously LHWR 20.4(f)(1))	August 20, 1987	LR 18:723	July 20, 1992.
LAC § 3707.F.2 (previously LHWR 20.4(f)(2))	August 20, 1987	LR 18:723	July 20, 1992.
LAC § 3711.F.1	November 21, 1988	LR 18:723	July 20, 1992.
LAC § 3711.F.2	November 21, 1988	LR 18:723	July 20, 1992.
LAC § 3711.G (previously LHWR 20.4(g))	March 20, 1984	LR 18:723	July 20, 1992.
LAC § 3715.F.1 (previously LHWR § 20.8(f)(1))	March 20, 1984	LR 18:723	July 20, 1992.
LAC § 4141	March 20, 1992	LR 18:1375	December 20, 1992.
LAC § 4307 (previously LHWR § 23.4)	March 20, 1984	LR 21:944	September 20, 1995.
LAC § 4397.B	August 20, 1987	LR 21:266	March 20, 1995.
LAC § 4403.E.1	March 20, 1990	LR 18:723	July 20, 1992.
LAC § 4403.E.2	November 21, 1988	LR 18:723	July 20, 1992.
LAC § 4403.F (previously LHWR § 23.52(f))	March 20, 1984	LR 18:723	July 20, 1992.
LAC § 4407.A.12 (previously LHWR § 23.54(a)(12))	March 20, 1984	LR 13:433	August 20, 1987.
		LR 18:723	July 20, 1992.
LAC § 4407.E.1&.2	August 20, 1987	LR 18:723	July 20, 1992.
LAC § 4407.F (previously LHWR § 23.54(f))	March 20, 1984	LR 18:723	July 20, 1992.
LAC § 4503.B introductory paragraph (previously LHWR § 23.102(b))	March 20, 1984	LR 16:1057	December 20, 1990.
LAC § 4513.A	March 20, 1990	LR 18:1375	December 20, 1992.
		LR 20:1000	September 20, 1994.
LAC § 4901.D.3	September 20, 1994	LR 21:266	March 20, 1995.

(5) Memorandum of Agreement. The Memorandum of Agreement between EPA Region 6 and the Louisiana Department of Environmental Quality—Hazardous Waste Division, signed by the EPA Regional Administrator on December 18, 1995, 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 Louisiana on May 10, 1989 and revisions, supplements and addenda to that Statement dated May 13, 1991, May 3, 1994, December 2, 1994, May 31, 1995, July 24, 1995, and November 30, 1995, are 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*.

[62 FR 67583, Dec. 29, 1997]

§§ 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. 6926(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.

[54 FR 7421, Feb. 21, 1989, as amended at 55 FR 18112, May 1, 1990; 57 FR 3724, Jan. 31, 1992]

§ 272.1151 State-administered program: Final authorization.

Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(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).

(i) Michigan Compiled Laws Annotated, §§ 299.501–506, 299.521–522, 299.532–535, 299.537, and 299.539–541 (P.A. 64 of 1979 as amended by P.A. 486 of 1982, effective March 30, 1983). Copies of the State laws incorporated by reference in this paragraph are available from West Publishing Co., 50 West Kellogg Boulevard, P.O. Box 64526, St. Paul, Minnesota 55164–0526.

(ii) Michigan Administrative Code, Rules 299.9101–9206(3)(g), 299.9206(4)–9208(1), 299.9208(3)–9209(1), 9209(4)–(9209(6), 299.9210(2)–9211(1)(a), 299.9211(1)(c)–9212(4), 299.9212(6)–9212(7), 299.9212(8)(b)–9213(1)(a), 299.9213(1)(c), 299.9213(2)–9214(6)(b), 299.9215–9217, 299.9220, 299.9222, 299.9224–9225, 299.9301–9304(1)(b), 299.9304(1)(d)–299.9401(5), 299.9402, 299.9404(1) introductory text, 299.9404(1)(b)–9405, 299.9407–9408(1), 299.9409–9410, 299.9501–9504(1) introductory text, 299.9504(1)(b)–9506, 299.9508–9508(1)(g), 299.9508(1)(i)–9521(1)(b), 299.9521(2)–9522, 299.9601–9611(2)(a), 299.9611(3)–9623(1)(b), 299.9623(3)–9710, 299.9801–9804, 299.11001–11008 (1985 Annual Michigan Administrative Code Supplement, as supplemented by the April 1988 Michigan Register, pages 3–107, and the January 1989 Michigan Register, pages 1–27). Copies of the Michigan regulations that are incorporated by reference in this paragraph are available from the Department of Management and Budget's Publication Office, 7461 Crowner Drive, Lansing, Michigan 48913, Phone: (517) 322–1897. Copies may be inspected at: U.S. EPA Headquarters Library, PM 211A, 401 M St., SW., Washington, DC 20460. Phone: (202) 382–5926; U.S. EPA, Region V, Waste, Pesticides and Toxics Division, Program Management Branch, 7th floor, 77 West Jackson Boulevard, Chicago, IL. Phone: Ms. Judy Feigler, (312) 886–4179; and at the Office of the Federal Register, 800 North Capitol Street, NW., room 700, Washington, DC.

(2) The following statutes and regulations, although not codified herein for enforcement purposes, are part of the authorized State program.

(i) Michigan Compiled Laws Annotated, § 24.201–328 (P.A. 306 of 1969, effective July 1, 1970), §§ 299.507, 299.514–520, 299.523–528, 299.544, and 299.546–548 (P.A. 64 of 1979 as amended by P.A. 486 of 1982, effective March 30, 1983).

(ii) Michigan Administrative Code Rules 299.9521(1)(c), 299.11101–11107 (1985 Annual *Michigan Administrative Code Supplement*, as supplemented by the April, 1988 *Michigan Register*, pages 3–107).

(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) Michigan Compiled Laws Annotated, §§ 299.508–513, 299.529, 299.531, and 299.542–543 (P.A. 64 of 1979 as amended by P.A. 486 of 1982).

(ii) Michigan Administrative Code Rules 299.9208(2), 299.9209 (2) and (3), 299.9210(1), 299.9211(1)(b), 299.9212 (5) and (8)(a), 299.9213(1) (b) and (d), 299.9214(6)(c), 299.9218–9219, 299.9221, 299.9223, 299.9226, 299.9304(1)(c), 299.9401(6), 299.9403, 299.9404(1)(a), 299.9406, 299.9408 (2) and (3), 299.9411–9412, 299.9504(1)(a), 299.9507, 299.9508(1)(h), 299.9523, 299.9611(2) (b) and (c), 299.9623(2), 299.9711, 299.9901–9906 (1985 Michigan Administrative Code Annual Supplement, as supplemented by the April 1988 Michigan Register, pages 3–107, and the January 1989 Michigan Register, pages 1–27).

(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*.

[54 FR 7421, Feb. 21, 1989, as amended at 55 FR 18113, May 1, 1990; 57 FR 3725, Jan. 31, 1992; 62 FR 1834, Jan. 14, 1997]

§ 272.1152–272.1199 [Reserved]

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*.

(i) EPA Approved Minnesota Statutory Requirements Applicable to the Hazardous Waste Management Program, dated April 5, 1994.

(ii) EPA Approved Minnesota Regulatory Requirements Applicable to the Hazardous Waste Management Program, dated April 5, 1994.

(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]

[59 FR 45987, Sept. 6, 1994]

§§ 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.

[54 FR 8193, Feb. 27, 1989]

§ 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) *State statutes and regulations.* (1) The Missouri 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.*

(i) Missouri Statutory Requirements Applicable to the Hazardous Waste Management Program, 1990.

(ii) Missouri Regulatory Requirements Applicable to the Hazardous Waste Management Program, December 31, 1990.

(2) The following statutes and regulations, although not incorporated by reference for enforcement purposes, are part of the authorized State program. The statutory provisions include: 260.360(4), 260.360(20)–260.377, 260.393–260.394, 260.400, 260.410–260.420, 260.425–260.430. The regulatory provisions include 3.260(1)(A)24–3.260(1)(A)25, 3.260(1)(B)–3.260(1)(D), 4.261(2)(D)3, 5.262(2)(B)2, 5.262(2)(C)2, 5.262(2)(D)1, 6.263(2)(A)10.D–6.263(2)(A)10.I, 6.263(2)(D)3, 7.264(2)(B)1, 7.265(2)(B), 7.266(2)(E)–7.266(2)(E)3, 7.268(2)(A)1, 7.268(2)(A)3, 7.268(2)(E), 7.270(2)(B)12–7.270(2)(B)13, 7.270(2)(B)18, 7.270(2)(C)1.D, 7.270(2)(C)3, 7.270(2)(D)4.

(3) The following statutory and regulatory provisions are broader in scope than the Federal program, and are not part of the authorized State program. The statutory provisions include: 260.360(13), 260.379, 260.380–1.(10), 260.385(1), 260.390(8), 260.391, 260.395–1–260.295–5, 260.395–7.(5)–260.395–7.(6), 260.396, 260.405, 260.423–260.424, 260.431–260.434. The regulatory provisions include: 3.260(1)(A)21, 4.261(2)(A)6–4.261(2)(D)2, 5.262(2)(I), 6.263(2)(A)3–6.263(2)(A)4, 7.264(2)(P), 7.266(2)(C)–7.266(2)(D), 7.266(2)(E)4–7.266(2)(G), 7.270(2)(B)7–7.270(2)(B)8, 7.270(2)(B)10, 7.270(2)(C)1.A, 7.270(2)(H).

(b) *Memorandum of Agreement.* The Memorandum of Agreement between EPA Region VII and the Missouri Department of Natural Resources, signed by the EPA Regional Administrator on August 30, 1988, and the subsequent Agreement signed on August 31, 1992 are referenced 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.* (1) ''Attorney General's Statement for Final Authorization,'' signed by the Attorney General of Missouri on June 27, 1985, is codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 *et seq.*

(2) ''Attorney General's Statement for Final Authorization of Changes to the Federal RCRA Program,'' signed by the delegated Assistant Attorney General of Missouri on December 1, 1987, and the subsequent Statement signed on February 28, 1992, are referenced 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 are codified as part of the authorized hazardous waste management program under Subtitle C of RCRA, 42 U.S.C. 6921 *et seq*.

[54 FR 8193, Feb. 27, 1989, as amended at 58 FR 3500, Jan. 11, 1993]

§§ 272.1302–272.1349 [Reserved]

Subpart BB—Montana

§ 272.1350 State authorization.

(a) The State of Montana is authorized to administer and enforce its hazardous waste management program in lieu of the program under Subtitle C of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 6921 *et seq.*, subject to the Hazardous 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 Montana Department of Health and Environmental Services, was approved by EPA pursuant to 42 U.S.C. 6926(b) and part 271 of this chapter. EPA's approval was effective on July 11, 1984, 48 FR 28245.

(b) Montana 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 Montana authorization.

(c) Montana 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 to take 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) Montana 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. Montana 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 Montana obtains final authorization for the revised requirements pursuant to section 3006(b) of RCRA, the newly authorized provisions will be listed in § 272.1351. If Montana obtains interim authorization for the revised requirements pursuant to section 3006(g), the newly authorized provisions will be listed in § 272.1352.

§ 272.1351 State-administered program: Final authorization.

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 program application and any subsequently approved revisions thereto.

(a) *State Statutes and Regulations*. (1) The requirements in the Montana 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 Office of the Federal Register effective January 31, 1986.

(i) Montana Hazardous Waste Act, Montana Code Annotated, sections 75–10–401 through 75–10–413 and 75–10–419 through 75–10–421 (1983).

(ii) Administrative Rules of Montana, Health and Environmental Sciences, sections 16.44.101 through 16.44.911 (1983) and amendments to sections 16.44.104, 16.44.106, 16.44.108, 16.44.109, 16.44.202, 16.44.811, 16.44.817, and 16.44.819 adopted on January 16, 1984.

(2) The following statutes and regulations, although not incorporated by reference, are part of the authorized State program.

(i) Montana Hazardous Waste Act, Montana Code Annotated, sections 75–10–414 through 75–10–418 (1983).

(ii) Montana Public Records Act, Montana Code Annotated, sections 2–6–101 through 2–6–307 (1983).

(iii) Montana Administrative Procedures Act, Montana Code Annotated, sections 2–4–101 through 2–4–705 (1983).

(b) *Memorandum of Agreement*. The Memorandum of Agreement between EPA Region VIII and the Montana Department of Health and Environmental

Services, signed by the EPA Regional Administrator on June 16, 1984.

(c) *Statement of Legal Authority*. Letter from the Attorney General of Montana to EPA, June 7, 1984, with attached Statement of Independent Legal Counsel, dated June 1, 1984.

(d) *Program Description*. The Program Description and any other materials submitted as part of the original application or as supplements thereto.

§§ 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.

(a) Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b), New Mexico has final authorization for the following elements as submitted to EPA in New Mexico's base program application for final authorization which was approved by EPA effective January 25, 1985. Subsequent program revision applications were approved effective on April 10, 1990, July 25, 1990, December 4, 1992, August 23, 1994, December 21, 1994, July 10, 1995, January 2, 1996, March 10, 1997 and June 13, 1998.

(b) State Statutes and Regulations.

(1) The New Mexico 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*.

(i) The EPA Approved New Mexico Statutory Requirements Applicable to the Hazardous Waste Management Program, dated September 1997.

(ii) The EPA Approved New Mexico Regulatory Requirements Applicable to the Hazardous Waste Management Program, dated September 1997.

(2) The following statutes and regulations concerning State enforcement, although not incorporated by reference, are part of the authorized State program:

(i) New Mexico Statutes 1978 Annotated, Inspection of Public Records Act, Chapter 14, Article 2, (1994 Cumulative Supplement), Sections 14–2–1 *et seq*.

(ii) New Mexico Statutes 1978 Annotated, Hazardous Waste Act, Chapter 74, Article 4, (1993 Replacement Pamphlet), Sections 74–4–4 (except 74–4–4C), 74–4–4.1, 74–4–4.2C through 74–4–4.2F, 74–4–4.2G(1), 74–4–4.2H, 74–4–4.2I, 74–4–4.3 (except 74–4–4.3A(2) and 74–4–4.3F), 74–4–4.7B, 74–4–4.7C, 74–4–5, 74–4–7, 74–4–10, 74–4–10.1 (except 74–4–10.1C), 74–4–11 through 74–4–14.

(iii) Title 20, Chapter 4, Part 1, New Mexico Administrative Code (20 NMAC 4.1), effective November 11, 1995, Subpart IX, Section 4.1.901 (except 4.1.901.B.1 through 4.1.901.B.6); and Subpart X, Sections 4.1.1101, 4.1.1105, 4.1.1106, and 4.1.1109.

(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:

(ii) New Mexico Statutes 1978 Annotated, Hazardous Waste Act, Chapter 74, Article 4, (1993 Replacement Pamphlet), Sections 74–4–3.3 and 74–4–4.2J.

(4) *Unauthorized State Provisions* (i) The State's adoption of the Federal rules listed below is not approved by EPA and are, therefore, not enforceable:

Federal requirement	Federal Register reference	Publication date
Biennial Repot	48 FR 3977	01/28/83
Permit Rules; Settlement Agreement	48 FR 39611	09/01/83
Interim Status Standards; Applicability	48 FR 52718	11/22/83
Chlorinated Aliphatic Hydrocarbon Listing (F024)	49 FR 5308	02/10/84

Federal requirement	Federal Register reference	Publication date
National Uniform Manifest	49 FR 10490	03/20/84
Recycled Used Oil Management Standards	57 FR 41566: Amendments to 40 CFR Parts 260, 261 and 266.	09/10/92
	58 FR 26420: Amendments to 40 CFR Parts 261, 264 and 265.	05/03/93
Revision of Conditional Exemption for Small Scale Treatability Studies	59 FR 8362	02/18/94
Letter of Credit Revision	59 FR 29958	06/10/94

(ii) Additionally, New Mexico has adopted but is not authorized to implement the HSWA rules that are listed below in lieu of EPA. The EPA will continue to enforce the Federal HSWA standards for which New Mexico is not authorized until the State receives specific authorization from EPA.

Federal requirement	Federal Register reference	Publication date
Toxicity	55 FR 40834	10/05/90
Characteristic	56 FR 3978	02/01/91
Hydrocarbon Recovery Operations	56 FR 13406	04/02/91
Toxicity	56 FR 5910	02/13/91
Characteristic		
Chlorofluorocarbon		
Refrigerants		
Revisions to the Petroleum Refining Primary and Secondary Oil/Water/Solids Separation Sludge Listings (F037 and F038).	56 FR 21955	05/13/91
Boilers and Industrial Furnaces; Administrative Stay and Interim Standards for Bevill Residues.	58 FR 59598	11/09/93

(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 December 11, 1996, 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 New Mexico on January 1985, and revisions, supplements and addenda to that Statement dated April 13, 1988; September 14, 1988; July 19, 1989; July 23, 1992; February 14, 1994; July 18, 1994; July 20, 1994; August 11, 1994; November 28, 1994; August 24, 1995; and January 12, 1996, are 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*.

[63 FR 23224, Apr. 28, 1998]

§§ 272.1602–272.1649 [Reserved]

Subpart HH—New York

§§ 272.1650–272.1699 [Reserved]

Subpart II—North Carolina

§§ 272.1700–272.1749 [Reserved]

Subpart JJ—North Dakota

§§ 272.1750–272.1799 [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. 6291 *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). EPA's approval of revisions to Ohio's base program was effective on June 7, 1991 (see 56 FR 14203) and August 19, 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 14203) and August 19, 1991 (see 56 FR 28088).

(c) Ohio has primary responsibility for enforcing its hazardous waste program. However, EPA retains the authority to exercise its enforcement authorities under Section 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) Ohio 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. Ohio 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(b) of RCRA, 42 U.S.C. 6926(g). If Ohio obtains final authorization for the revised requirements pursuant to section 3006(b), the newly authorized provisions will be listed in 272.1801 of this subpart. If Ohio in the future obtains interim authorization for the revised requirements pursuant to section 3006(g), the newly authorized provisions will be listed in § 272.1802.

[54 FR 27173, June 28, 1989, as amended at 57 FR 4162, Feb. 4, 1992]

§ 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) *State Statutes and Regulations.* (1) 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); 50–44(C)(8) through 51–03(C)(2)(b)(ii); 51–03 (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; 55–02 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); 58–45(G); 58–46; 58–50 through 58–54; 58–60 through 65–01(C); 65–01(E); 65–10 through 68–14(C); 68–14(F); 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).

(ii) Ohio Administrative Code, volume 4, chapter 3745, rules: 49–031, 50–21 through 50–30, and 51–03(F) (OAC June 30, 1990, as supplemented by 1990–1991 Ohio Monthly Record, pages 70–80 (July, 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*.

(c) *Statement of Legal Authority*. (1) ''Attorney General's Statement for Final Authorization,'' signed by the Attorney General of Ohio on July 1, 1985, and supplements to that Statement dated June 13, 1990, and October 15, 1990, are 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.

[54 FR 27173, June 28, 1989, as amended at 57 FR 4162, Feb. 4, 1992]

§§ 272.1802–272.1849 [Reserved]

Subpart LL—Oklahoma

§ 272.1850 [Reserved]

§ 272.1851 Oklahoma State-administered program: Final authorization.

(a) Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b), the EPA granted Oklahoma final authorization for Base program effective on January 10, 1985. Subsequent program revision applications were approved effective on June 18, 1990, November 27, 1990, June 3, 1991, November 19, 1991, November 29, 1993, December 21, 1994, April 27, 1995, March 14, 1997, July 14, 1998, and November 23, 1998.

(b) State Statutes and Regulations.

(1) The Oklahoma 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*.

(i) The EPA Approved Oklahoma Statutory Requirements Applicable to the Hazardous Waste Management Program, November 1998.

(ii) The EPA Approved Oklahoma Regulatory Requirements Applicable to the Hazardous Waste Management Program, November 1998.

(2) The following statutes and regulations concerning State procedures and enforcement, although not incorporated by reference, are part of the authorized State program:

(i) Oklahoma Hazardous Waste Management Act, as amended, 27A Oklahoma Statute (O.S.) 1997 Edition, effective August 30, 1996, sections 2–2–104, 2–7–102, 2–7–104, 2–7–105 (except 2–7–105(27), 2–7–105(29) and 2–7–105(34)), 2–7–106, 2–7–107, 2–7–108(B)(2), 2–7–110(A), 2–7–113.1, 2–7–115, 2–7–116(A), 2–7–116(G), 2–7–116(H)(1), 2–7–123, 2–7–126, 2–7–129, 2–7–130, 2–7–131 and 2–7–133.

(ii) The Oklahoma Administrative Code, Title 252, Chapter 200, 1996 Edition, effective July 1, 1996: subchapter 1, section 252:200–1–1(b); subchapter 11,

section 252:200–11–2; and subchapter 13, sections 252:200–13–1 and 252:200–13–3.

(iii) The Oklahoma Administrative Code, Title 252, Chapter 200, 1997 Supplement, effective June 2, 1997: subchapter 3, sections 252:200–3–2(1), 252:200–3–4(b)(1)–(3) and 252:200–3–4(b)(16).

(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) Oklahoma Hazardous Waste Management Act, as amended, 27A Oklahoma Statute (O.S.) 1997 Edition, effective August 30, 1996, sections 2–7–119 and 2–7–121.

(ii) The Oklahoma Administrative Code Title 252, Chapter 200, 1996 Edition, effective July 1, 1996: subchapter 8.

(iii) The Oklahoma Administrative Code, Title 252, Chapter 200, 1997 Supplement, effective June 2, 1997: subchapter 13, section 252:200–13–4; subchapter 17; and 252:200 appendices B and C.

(4) *Unauthorized State Provisions:* The State's adoption of the Federal rules listed below, while incorporated by reference at § 272.1851(b)(1), is not approved by EPA and are, therefore, not enforceable:

Federal requirement	Federal Register reference	Publication date
Delisting	50 FR 28702: Amendments to 260.22(a) through 260.22(e).	07/15/85
Toxicity Characteristics; Hydrocarbon Recovery Operations	55 FR 40834, 56 FR 3978, 56 FR 13406.	10/05/90, 02/01/91, 04/02/91
Toxicity Characteristics; Chlorofluorocarbon Refrigerants	56 FR 5910	02/13/91
Administrative Stay for K069 Listing	56 FR 19951	05/01/91
Amendments to Interim Status Standards for Downgradient Groundwater Monitoring Well Locations.	56 FR 66365	12/23/91
Administrative Stay for the Requirement that Existing Drip Pads Be Impermeable.	57 FR 5859	02/18/92
Organic Air Emission Standards for Tanks, Surface Impoundments, and Containers (Rules 154.1 and 154.2).	59 FR 62896, 60 FR 26828	12/06/94, 05/19/95
Removal of Legally Obsolete Rules	60 FR 33912	06/29/95

(5) *Memorandum of Agreement*. The Memorandum of Agreement between EPA Region VI and the State of Oklahoma, signed by the EPA Regional Administrator on August 4, 1998, 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 Oklahoma on January 20, 1984 and revisions, supplements and addenda to that Statement dated January 14, 1988 (as amended July 20, 1989); December 22, 1988 (as amended June 7, 1989 and August 13, 1990); November 20, 1989; November 16, 1990; November 6, 1992; June 24, 1994; December 8, 1994; March 4, 1996; and April 15, 1997, are 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*.

[64 FR 46570, Aug. 26, 1999]

§§ 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

§§ 272.2100–272.2149 [Reserved]

Subpart RR—Tennessee

§§ 272.2150–272.2199 [Reserved]

Subpart SS—Texas

§ 272.2200 [Reserved]

§ 272.2201 Texas State-administered program: Final authorization.

(a) Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b), the EPA granted Texas final authorization for Base program effective on December 26, 1984. Subsequent program revision applications were approved effective on October 4, 1985, February 17, 1987, March 15, 1990, July 23, 1990, October 21, 1991, December 4, 1992, June 27, 1994, November 26, 1997, December 3, 1997, and November 15, 1999.

(b) State statutes and regulations.

(1) The Texas 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*.

(i) The EPA Approved Texas Statutory Requirements Applicable to the Hazardous Waste Management Program, December 1997.

(ii) The EPA Approved Texas Regulatory Requirements Applicable to the Hazardous Waste Management Program, December 1997.

(2) The following statutes and regulations concerning State procedures and enforcement, although not incorporated by reference, are part of the authorized State program:

(i) Texas Health and Safety Code (THSC) Annotated, (Vernon, 1992), effective September 1, 1991: Chapter 361, The Texas Solid Waste Disposal Act, sections 361.002, 361.017 (except 361.017(d)&(e)), 361.024(b)-(d), 361.033, 361.036, 361.037(a), 361.063(b), 361.063(e)-(g), 361.063(i), 361.063(k)&(l), 361.066(b), 361.078, 361.080(a), 361.082(b), 381.082(c) (except second sentence), 361.082(e), 361.084(c) (except the phrase ‘‘, or evidence of * * * waste management’’), 361.085(a)-(d), 361.088(b), 361.089(g), 361.090, 361.095(b)-(f), 361.096, 361.097, 361.098(a) (except the phrase ‘‘Except as provided in subsections (b) and (c),’’), 361.099(a), 361.100, 361.101, 361.103 through 361.108, 361.109(a), 361.221 (except 361.221(c)&(e), 361.222 (except 361.222(d)-(u)), 361.223(c), 361.227, 361.301, 361.303, 361.321(b), 361.321(c) (except the phrase ‘‘Except as provided by section 361.322(a)’’), and 361.321(d); Chapter 371, Texas Oil Collection, Management, and Recycling Act, sections 371.043(a)&(b), 371.044(b) and 371.045.

(ii) Texas Health and Safety Code (THSC) Annotated, (Vernon, 1997 Supplement), effective September 1, 1996: Chapter 361, The Texas Solid Waste Disposal Act, sections 361.016, 361.017(d)&(e), 361.018, 361.024(a), 361.024(e), 361.032, 361.061, 361.063(a), 361.063(c), 361.063(d), 361.063(j), 361.063(h), 361.064, 361.067, 361.068(a), 361.069 (except last sentence), 361.079, 361.083, 361.084 (except 361.084(c)), 361.085(e)-(j), 361.088(a)&(c), 361.089(a)-(f), 361.102(a) (except the phrase ‘‘Except as provided by subsections (b) and (c)’’), 361.223(a)&(b), 361.224(a)&(b), 361.225, 361.226, 361.228, 361.229, 361.301, 361.303, 361.321(a), and 361.321(e) (except the phrase ‘‘Except as provided by section 361.322(e)’’); Chapter 371, Texas Oil Collection, Management, and Recycling Act, sections 371.0025(b)&(c), 371.003 (introductory paragraph), 371.024(a), 271.024(c)&(d), 371.026(a)&(b), 371.028, 371.041(b)-(d), 371.042, 371.043(c)&(d), and 371.044(a).

(iii) Texas Water Code (TWC), Texas Codes Annotated (Vernon, 1992), effective September 1, 1985, as amended:

Chapter 5, sections 5.103, 5.104, 5.105; Chapter 26, section 26.011; and Chapter 27, section 27.019.

(iv) Texas Administrative Code (TAC), Title 30, Environmental Quality, 1994, as amended, effective through January 1, 1994: Chapter 305, sections 305.98 and 305.99.

(v) Texas Administrative Code (TAC), Title 30, Environmental Quality, 1997, as amended, effective through January 1, 1997: Chapter 281, sections 281.1 (except the clause ''except as provided by * * * Prioritization Process)''), 281.2 (introductory paragraph), 281.2(4), 281.3(a)&(b), 281.5, 281.17(d)-(f), 281.18(a), 281.19, 281.20, 281.21 (except 281.21(e)), 281.22(a)&(b), 268.23 281.24; Chapter 305, sections 305.29(b)&(c), 305.64(d)&(f), 305.66(c), 305.66(e)-(l), 305.91 through 305.95, 305.97, 305.100, 305.101 (except 305.101(c)), 305.102, 305.103, 305.105, 305.123, 305.125(1)&(3), 305.125(20), 305.127(1)(B)(i), 305.127(4)(A)&(C), 305.127(6), 305.401 (except 305.401(c)); Chapter 324, sections, 324.17 through 324.20; and Chapter 335, sections 335.2(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:

(i) Texas Health and Safety Code (THSC) Annotated, (Vernon 1992), effective September 1, 1991: Chapter 361, The Texas Solid Waste Disposal Act, sections 361.131 through 361.140; Chapter 371, Texas Oil Collection, Management, and Recycling Act, sections 371.021, 371.022, 371.024(e), 371.025, and 371.026(c).

(ii) Texas Health and Safety Code (THSC) Annotated, (Vernon 1997 Supplement), effective September 1, 1996: Chapter 361, The Texas Solid Waste Disposal Act, sections 361.131 through 361.140; Chapter 371, Texas Oil Collection, Management, and Recycling Act, sections 371.021, 371.022, 371.024(e), 371.0245, 371.0246, 371.025, and 371.026(c).

(iii) Texas Administrative Code (TAC), Title 30, Environmental Quality, 1997, as amended, effective through January 1, 1997: Chapter 305, sections 305.27 (as it pertains to solid waste), 305.53, 305.64(b)(4); and Chapter 335, sections 335.321 through 335.332 and Appendices I and II.

(4) Unauthorized State Amendments. 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 § 272.2201(b)(1), EPA will only enforce the authorized State provisions with the effective dates indicated in the following table. The actual State regulatory text authorized by EPA for the listed provisions is available as a separate document, Addendum to the EPA-Approved Texas Regulatory and Statutory Requirements Applicable to the Hazardous Waste Management Program, December, 1997. Copies of the document can be obtained from U.S. EPA Region 6, Grants and Authorization Section, RCRA Programs Branch, U.S. EPA Region 6, First Interstate Bank Tower at Fountain Place, 1445 Ross Avenue, Suite 1200, Dallas, TX 75202.

State provision	Effective date of authorized provision	Unauthorized state amendments	
		Texas Register reference	Effective date
335.2(c)	11/7/91	18 TexReg 2799	5/12/93
		18 TexReg 8218	11/23/93
335.6(a)	7/29/92	18 TexReg 2799	5/12/93
335.6(c) introductory paragraph	7/29/92	17 TexReg 8010	11/27/92
		20 TexReg 2709	4/24/95
		20 TexReg 3722	5/30/95
		21 TexReg 1425	3/1/96
		21 TexReg 2400	3/6/96
335.6(g)	7/29/92	18 TexReg 3814	6/28/93
335.10(b)(22)	7/27/88	17 TexReg 8010	11/27/92
335.24(b) introductory paragraph	3/1/96	21 TexReg 10983	11/20/96
335.24(c) introductory paragraph	3/1/96	21 TexReg 10983	11/20/96
335.41(c)	9/1/86	18 TexReg 8218	11/23/93
335.45(b)	9/1/86	17 TexReg 5017	7/29/92

State provision	Effective date of authorized provision	Unauthorized state amendments	
		Texas Register reference	Effective date
335.204(a)(1)	5/28/86	16 TexReg 6065	11/7/91
335.204(b)(1)	5/28/86	16 TexReg 6065	11/7/91
335.204(b)(6)	5/28/86	16 TexReg 6065	11/7/91
335.204(c)(1)	5/28/86	16 TexReg 6065	11/7/91
335.204(d)(1)	5/28/86	16 TexReg 6065	11/7/91
335.204(e)(6)	5/28/86	16 TexReg 6065	11/7/91

(5) Memorandum of Agreement. The Memorandum of Agreement between EPA Region VI and the Texas Natural Resource Conservation Commission (TNRCC), signed by the EPA Regional Administrator on July 24, 1997, 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 Texas on May 22, 1984 and revisions, supplements and addenda to that Statement dated November 21, 1986, July 21, 1988, December 4, 1989, April 11, 1990, July 31, 1991, February 25, 1992, November 30, 1992, March 8, 1993, January 7, 1994, August 9, 1996, October 16, 1996, as amended February 7, 1997, and March 11, 1997, are 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*.

[64 FR 49680, Sept. 14, 1999]

§§ 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.

(i) The EPA Approved Utah Regulatory Requirements Applicable to the Hazardous Waste Management Program, dated March 1999.

(ii) [Reserved]

(2) The following statutes and regulations concerning State procedures and enforcement, although not incorporated by reference, are part of the authorized State program:

(i) Utah Code Annotated, Volume 3A, 1998 Replacement and 1999 Supplement, Title 19: Sections 19–1–306(2), 19–1–306(3), 19–6–102 introductory paragraph, 19–6–102(1) & (2), 19–6–102(6)–(9), 19–6–102(11), 19–6–102(13)–(21), 19–6–102.1, 19–6–103, 19–6–104(1) except (1)(j), 19–6–105(1) introductory paragraph, 19–6–105(1)(a)–(f), 19–6–105(1)(i) & (j), 19–6–105(2), 19–6–106, 19–6–107, 19–6–109, 19–6–111, 19–6–112, 19–6–113(1) through (4), 19–6–113(6), 19–6–114, 19–6–115, and 19–6–116.

(ii) Utah Code Annotated, Volume 6D, 1997 Replacement and 1999 Supplement, Title 63: Sections 63–2–103 through 63–2–105, 63–2–201 through 63–2–

203 (except 63–2–203(10)), 63–2–204, 63–2–205, 63–2–301 through 63–2–308, 63–2–401 through 63–2–405, and 63–2–802.

(iii) Utah Code Annotated, Volume 3, 1953 as amended 1987, Title 26, Chapter 14: Section 26–14–8.

(iv) Utah Administrative Code revised as of January 3, 1989: R450–3.1.1(b) & (c) and R450–3–2.4(b).

(v) Utah Administrative Code revised as of February 15, 1996: Sections R315–2–14, R315–3–3(i)(1)&(3), R315–3–11(a), (b) & (f), R315–3–16(b), R315–3–23(b)(1) & (2), R315–3–23(c) & (d), R315–3–24(a) through R315–3–29, and R315–3–34.

(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:

(i) Utah Code Annotated, Volume 3A, 1998 Replacement and 1999 Supplement, Title 19: Sections 19–6–105(3), 19–6–113(5), 19–6–118, 19–6–120, and 19–6–121.

(ii) Utah Administrative Code revised as of February 15, 1996. EPA considers Utah's listing of all P999 and some F999 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.

(iii) Utah Administrative Code, as of May 15, 1996: R315–15–7.1(d), R315–15–10, R315–15–11 with respect to used oil transfer and off-specification used oil burning facilities, and R315–15–12 through R315–15–15 except R315–15–13.5(d).

(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:

Federal requirement	Federal Register reference	Publication date
Standards for Generators of Hazardous Waste; Manifest Renewal (Revision Checklist 58).	53 FR 45089	11/8/88
Removal of Legally Obsolete Rules (Non-HSWA provisions) (Revision Checklist 144).	60 FR 33912	6/29/95
Testing and Monitoring Activities Amendment III (Revision Checklist 158)	62 FR 32452	6/13/97

(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.

Federal requirement	Federal Register reference	Publication date
Removal of Legally Obsolete Rules (HSWA provisions) (Revision Checklist 144)	60 FR 33912	6/29/95
Land Disposal Restrictions Phase III—Decharacterized Wastewaters, Carbamate Wastes, and Spent Potliners (Revision Checklist 151).	61 FR 15566; 61 FR 15660; 61 FR 19117; 61 FR 33680; 61 FR 36419; 61 FR 43924; 62 FR 7502	4/8/96; 4/8/96; 4/30/96; 6/28/96; 7/10/96; 8/26/96; 2/19/97
Organic Air Emission Standards for Tanks, Surface Impoundments, and Containers—formerly Revision Checklist 138 (Rule 154.1).	59 FR 62896	12/6/94
Land Disposal Restrictions Phase III—Emergency Extension of the K088 Capacity Variance (Revision Checklist 155).	62 FR 1992	1/14/97

Federal requirement	Federal Register reference	Publication date
Land Disposal Restrictions—Phase IV (Revision Checklist 157)	62 FR 25998	5/12/97
Carbamate Production, Identification and Listing of Hazardous Waste; Land Disposal Restrictions (Conformance With the Carbamate Vacatur) (Revision Checklist 159).	62 FR 32974	6/17/97

(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.

State provision	State reference	Unauthorized State amendments	
		State reference	Effective date
R315–2–1(b)(2)(ii)	9/24/86	DAR 12647	5/29/92
R315–7–11.3(b)	1/3/89	DAR 12652	5/29/92
R315–7–12.6(g)	Base	DAR 09632	1/3/89

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*.

(7) *Statement of legal authority*. ''Attorney General's Statement for Final Authorization'', signed by the Attorney General of Utah on January 16, 1984, and revisions, supplements and addenda to that Statement dated October 29, 1986, March 6, 1991, September 17, 1991, September 223, 1992, November 19, 1993, March 16, 1994, March 20, 1995, November 13, 1997, and March 2, 1999, are 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]

§§ 272.2252–272.2299 [Reserved]

Subpart UU—Vermont

§§ 272.2300–272.2349 [Reserved]

Subpart VV—Virginia

§§ 272.2350–272.2399 [Reserved]

Subpart WW—Washington

§§ 272.2400–272.2449 [Reserved]

Subpart XX—West Virginia

§§ 272.2450–272.2499 [Reserved]

Subpart YY—Wisconsin

§ 272.2500 [Reserved]

§ 272.2501 Wisconsin State-administered program; final authorization.

Pursuant to section 3006(b) of RCRA, 42 U.S.C. 6926(b): Wisconsin has final authorization for the following elements as submitted to EPA in Wisconsin'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 June 6, 1989, January 22, 1990, and April 24, 1992.

STATE STATUTES AND REGULATIONS

(a) The Wisconsin 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*.

(1) EPA Approved Wisconsin Statutory Requirements Applicable to the Hazardous Waste Management Program, (dated August 9, 1993).

(2) EPA Approved Wisconsin Regulatory Requirements Applicable to the Hazardous Waste Management Program (dated August 9, 1993).

(b) The following statutes and regulations concerning State enforcement, although not incorporated by reference

for enforcement purposes, are part of the authorized State program:

(1) Wisconsin Statutes, Volume 1, §§ 19.21; 19.31; 19.32(2) and (5); 19.35(3) and (4); 19.36; 19.37(1) and (2); Wisconsin Statutes, Volume 3, §§ 144.69–144.72; 144.73–144.74; 144.76(2) and (3); Wisconsin Statutes Volume 4, §§ 227.07; 227.09; 227.14; 227.51; and Wisconsin Statutes, Volume 5, § 803.09 (1985–86).

(2) Wisconsin Administrative Code, Volume 1, § NR: 2.19; 2.195(1); and 2.195(5) (effective April 1, 1984); Wisconsin Administrative Code, Volume 12, § NR: 680.06(12) (effective March 1, 1991).

[58 FR 49200, Sept. 22, 1993]

§§ 272.2502–272.2549 [Reserved]

Subpart ZZ—Wyoming

§§ 272.2550–272.2599 [Reserved]

Subpart AAA—Guam

§§ 272.2600–272.2649 [Reserved]

Subpart BBB—Puerto Rico

§§ 272.2650–272.2699 [Reserved]

Subpart CCC—Virgin Islands

§§ 272.2700–272.2749 [Reserved]

Subpart DDD—American Samoa

§§ 272.2750–272.2799 [Reserved]

Subpart EEE—Commonwealth of the Northern Mariana Islands

§§ 272.2800–272.2849 [Reserved]

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:

Arizona Laws Relating to Environmental Quality, 1993 edition, reprinted from *Arizona Revised Statutes*, Title 49, Sections 49–921 and 49–922. Copies of the Arizona statutes can be obtained from the State Bar of Arizona, 111 West Munroe, Suite 1800, Phoenix, Arizona 85003–1742.

The regulatory provisions include:

Arizona Administrative Code, Title 18, Chapter 8, December 31, 1994, Sections R18–8–260.A through R18–8–260.C, R18–8–260.E through R18–8–260.H; R18–8–261.A through R18–8–261.I; R18–8–261.K; R18–8–262; R18–8–263; R18–8–264; R18–8–265; R18–8–266; R18–8–268; R18–8–270.A through R18–8–270.F; R18–8–270.H through R18–8–270.Q; and R18–8–271.A through R18–8–271.E. Copies of the Arizona regulations can be obtained from the Arizona Secretary of State, Publications, Notary, Charitable Solicitation & Telemarketing Division, 1700 West Washington, 7th Floor, Phoenix, Arizona 85007–2808.

ARKANSAS

The statutory provisions include:

Arkansas Hazardous Waste Management Act, as amended, Arkansas Code of 1987 Annotated (A.C.A.), 1993 Replacement, Sections 8–7–202, 8–7–203, 8–7–215, 8–7–216, 8–7–219, 8–7–221, 8–7–223 and 8–7–225(a), as published by The Michie Company, Law Publishers, 1 Town Hall Square, Charlottesville, Virginia 22906–7587.

The regulatory provisions include:

Arkansas Department of Pollution Control and Ecology Regulation No. 23, Hazardous Waste Management, as amended August 27, 1993, effective September 21, 1993, chapter one; chapter two, sections 2a (except the second sentence of 2a(5)), 2b (except 2b(11)), 2c, 3a (except 3a(10), 3a(11) and 3a(13)), 5, 6 introductory paragraph, 6b, 6c, 9, 10, 12 introductory paragraph, 12a, 12b (except 12b(7) and 12b(8)), 12c(10), 12c(11), 13a introductory paragraph, 13a(1) through 13a(7), 13a(11), 14 introductory paragraph, 14b, 15, 16 introductory paragraph, 16b, 16c introductory paragraph, 16c(1) (except the phrase 'or the letters ''PCB'' for PCB shipments' in 16c(1)(e)), 16c(2) through 16c(6), 16c(7) (except the second and third sentences), 16c(8) through 16c(12), 16d(1) (except the phrase ''(including PCBs and PCB contaminated wastes)'' in the first sentence), 16d(1)(a) through 16d(1)(d), 16d(1)(e) (except the phrase 'or ''PCBs'' ' in the first sentence), and 16d(1)(f) through 16e. Copies of the Arkansas regulations can be obtained from the Arkansas Register, Secretary of State, State Capitol Building, Little Rock, Arkansas 72201.

FLORIDA

The statutory provisions include:

Florida Statutes, 1991, Chapter 1: 1.01 (1) and (2).

Florida Statutes, 1993, Chapter 403: 403.031 introductory paragraph; 403.031 (2)–(7); 403.087(1) first sentence, and (6); 403.201(4) (except the phrase ''may require by rule a processing fee for and''); 403.703 introductory paragraph; 403.703 (2)–(6), (8)–(28), (30)–(34),

(36), and (40), (42)–(44); 403.7045(1) introductory paragraph, (1) (a), (b) and (d); 403.7045(2) introductory paragraph; 403.7045(2) (a)–(c); 403.7045(3) introductory paragraph; 403.7045(3) (a)–(c); 403.72(2); 403.721(1); 403.722 (1)–(6); 403.7221; 403.724(1) (except the phrase ''or corrective action''); 403.724(2); 403.728; 403.74 (1), (3)–(5); 403.751(1) (except (d) & (e); and (2).

Florida Statutes, 1994 Supplement to 1993, Chapter 403: 403.031(1); 403.703(1); 403.7222 (1) and (2); 403.74(2).

Florida Statutes, 1993, Chapter 404: 404.031(13).

Copies of the Florida Statutes that are incorporated by reference are available from the Florida Department of State, Division of Elections, Bureau of Administrative Code, Weekly and Laws, The Elliot Building, 401 South Monroe Street, Tallahassee, Florida 32399–0250.

The regulatory provisions include:

The Florida Administrative Code, Chapter 62–4, effective July 4, 1995: 62–4.070(2); 62–4.080; and 62–4.100.

The Florida Administrative Code, Chapter 62–730, effective September 7, 1995: 62–730.001; 62–730.020 (1), (3), and (4); 62–730.021; 62–730.030; 62–730.140; 62–730.150; 62–730.160; 62–730.161; 62–730.170(1); 62–730.171; 62–730.180 (1)–(5), (7), and (8); 62–730.181; 62–730.183; 62–730.185; 62–730.200 (except (3)); 62–730.210; 62–730.220 (1), (2), (3), (5)–(8), (10), and (11); 62–730.231 (except (10)); 62–730.240 (1) and (2); 62–730.250; 62–730.260; 62–730.270(1) (except (1)(b)(4) and (1)(c)(3)), (2), and (3); 62–730.280; 62–730.290 (except the phrase ''and submittal of the appropriate permit modification fee'' at subparagraph (3)); 62–730.300; 62–730.320; 62–730.330; and 62–730.900.

Copies of the Florida Administrative Code are available from the Florida Department of State, Division of Elections, Bureau of Administrative Code, Weekly and Laws, The Elliot Building, 401 South Monroe Street, Tallahassee, Florida 32399–0250.

IDAHO

The statutory provisions include:

Idaho Code containing the General Laws of Idaho Annotated, Volume 7A, Title 39, Chapter 44, ''Hazardous Waste Management'', 1993: sections 39–4402; 39–4408 (1)–(3); 39–4409(1) (except fourth and fifth sentences); 39–4409(2) (first sentence); 39–4409(4) (except first sentence); 39–4409(5); 39–4409(6); 39–4409(7); 39–4409(8); 39–4423 (except 39–4423(3)(a)&(b)); and 39–4424.

1996 Cumulative Pocket Supplement to the Idaho Code, Volume 7A, Title 39, Chapter 44, ''Hazardous Waste Management'', 1996: sections 39–4403 (except 39–4403 (6)&(14)); 39–4411(2); 39–4411(4); and 39–4411(5).

Idaho Code containing the General Laws of Idaho Annotated, Volume 7A, Title 39, Chapter 58, ''Hazardous Waste Facility Siting Act'', published in 1993 by the Michie Company, Law Publishers, Charlottesville, Virginia: sections 39–5802; 39–5803; 39–5808; 39–5811; 39–5813(1); and 39–5818(2).

Copies of the Idaho statutes that are incorporated by reference are available from Michie Company, Law Publishers, 1 Town Hall Square, Charlottesville, VA 22906–7587.

The regulatory provisions include:

Idaho Department of Health and Welfare Rules and Regulations, Idaho Administrative Code, IDAPA 16, Title 1, Chapter 5, ''Rules and Standards for Hazardous Waste'', as published on July 1, 1997: sections 16.01.05.001; 16.01.05.002; 16.01.05.003; 16.01.05.004; 16.01.05.005; 16.01.05.006; 16.01.05.007; 16.01.05.008; 16.01.05.009; 16.01.05.010; 16.01.05.011; 16.01.05.012; 16.01.05.013; 16.01.05.014; 16.01.05.015; 16.01.05.016; 16.01.05.356.01; and 16.01.05.998.

NOTE: The 1997 Idaho Code, section 16.01.05.011, contains a typographical error discovered during codification. The reference to ''39–4403(16)'' should read ''39–4403(17)''. Idaho has subsequently corrected this typographical error in the 1998 Idaho Code and will submit the corrected version in the next authorization package.

INDIANA

The statutory provisions include:

Annotated Indiana Code, 1998 edition, Title 13, Sections 13–14–1, 13–14–7, 13–14–8, 13–19–3, 13–22–2, and 13–22–4.

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 55164–0526.

The regulatory provisions include:

Indiana Administrative Code, 1996 edition, 2000 cumulative supplement, Title 329, Article 3.1, Sections 3.1–1–7, 3.1–4–1, 3.1–5–1, 3.1–5–2, 3.1–5–3, 3.1–5–4, 3.1–5–5, 3.1–5–6, 3.1–6–1, 3.1–6–2, 3.1–7–1, 3.1–7–2, 3.1–7–3, 3.1–7–4, 3.1–7–5, 3.1–7–6, 3.1–7–7, 3.1–7–8, 3.1–7–9, 3.1–7–10, 3.1–7–11, 3.1–7–12, 3.1–7–13, 3.1–7–14, 3.1–7–15, 3.1–7–16, 3.1–8–1, 3.1–9–1, 3.1–9–2, 3.1–9–3, 3.1–10–1, 3.1–10–2(1 through 3), 3.1–10–2(5 through 22), 3.1–11–1, 3.1–11–2, 3.1–12–1, 3.1–13–1, 3.1–13–2(1 through 3), 3.1–13–2(5 through 15), 3.1–13–3, 3.1–13–4, 3.1–13–5, 3.1–13–6, 3.1–13–7, 3.1–13–8, 3.1–13–9, 3.1–13–10, 3.1–13–11, 3.1–13–12, 3.1–13–13, 3.1–13–14, 3.1–13–15, 3.1–13–16, 3.1–13–17, 3.1–14–1, 3.1–14–2, 3.1–14–3, 3.1–14–4, 3.1–14–5, 3.1–14–6, 3.1–14–7, 3.1–14–8, 3.1–14–9, 3.1–14–10, 3.1–14–11, 3.1–14–12, 3.1–14–13, 3.1–14–14, 3.1–14–15, 3.1–14–16, 3.1–14–17, 3.1–14–18, 3.1–14–19, 3.1–14–20, 3.1–14–21, 3.1–14–22, 3.1–14–23, 3.1–14–24, 3.1–14–25, 3.1–14–26, 3.1–14–27, 3.1–14–28, 3.1–14–29, 3.1–14–30, 3.1–14–31, 3.1–14–32, 3.1–14–33, 3.1–14–34, 3.1–14–35, 3.1–14–36, 3.1–14–37, 3.1–14–38, 3.1–14–39, 3.1–14–40, 3.1–15–1, 3.1–15–2, 3.1–15–3, 3.1–15–4, 3.1–15–5, 3.1–15–6, 3.1–15–7, 3.1–15–8, 3.1–15–9, 3.1–15–10, 3.1–16–1, 13–1–1, 13–1–2, 13–2–1, 13–2–2, 13–2–3, 13–2–4, 13–2–5, 13–2–6, 13–2–7, 13–2–8, 13–2–9, 13–2–10, 13–2–11, 13–2–12, 13–2–13, 13–2–14, 13–2–15, 13–2–16, 13–2–17, 13–2–18, 13–2–19, 13–2–20, 13–2–

21, 13–2–22, 13–2–23, 13–2–24, 13–2–25, 13–2–26, 13–2–27, 13–3–1, 13–3–2, 13–3–3, 13–4–1, 13–4–2, 13–4–3, 13–4–4, 13–4–5, 13–5–1, 13–5–2, 13–5–3, 13–6–1, 13–6–2, 13–6–3, 13–6–4, 13–6–5, 13–6–6, 13–6–7, 13–6–8, 13–7–1, 13–7–2, 13–7–3, 13–7–4, 13–7–5, 13–7–6, 13–7–7, 13–7–8, 13–7–9, 13–7–10, 13–8–1, 13–8–2, 13–8–3, 13–8–4, 13–8–5, 13–8–6, 13–8–7, 13–8–8, 13–9–1, 13–9–2, 13–9–3, 13–9–4, 13–9–5, 13–9–6, 13–10–1, 13–10–2, 13–10–3.

Copies of the Indiana regulations that are incorporated by reference are available from Indiana Legislative Services Agency, Administrative Code and Register Division, Legislative Information Center, 302 State House, Indianapolis, Indiana 46204.

LOUISIANA

The statutory provisions include:

Louisiana Statutes Annotated, Revised Statutes, 1989, Volume 17B, Subtitle II of Title 30, Louisiana Environmental Quality Act, 1989: Chapter 1, sections 2002, 2003, 2004 introductory paragraph, 2004(1)–(8), 2004(10), 2004(13), 2004(14) introductory paragraph, 2004(14)(a)&(e), 2004(15); Chapter 9, sections 2172, 2173 (except 2173(2), 2173(9) and 2173(11) introductory paragraph), 2183.A,B,D&E, 2183.I, 2188.B, 2201, 2202, 2203.A, 2204.A(1) and 2204.C.

Louisiana Statutes Annotated, Revised Statutes, 1992 Cumulative Annual Pocket Part, Volume 17B, Subtitle II of Title 30, Louisiana Environmental Quality Act: Chapter 1, Section 2004(9); Chapter 2, Section 2022.A first sentence, Chapter 8, Section 2153(1); Chapter 9, Sections 2173(2) and 2173(11); Chapter 18, Section 2417.E(5).

Copies of the Louisiana statutes that are incorporated by reference are available from West Publishing Company, 610 Opperman Drive, P.O. Box 64526, St. Paul, Minnesota 55164–0526.

The regulatory provisions include:

Louisiana Administrative Code, Title 33, Part V, Hazardous Waste and Hazardous Materials, Amendments through June 1995: Chapter 1, Sections 103, 105 introductory paragraph, 105.A–C, 105.D.2–.12, 105.D.13 (except the phrase ''except as * * * process hazardous waste''), 105.D.14–.17, 105.D.18 (except the phrase ''except as * * * process hazardous waste''), 105.D.19–.32, 105.D.33 (except 105.D.33.c), 105.D.34, 105.D.35, 105.D.37–.42, 105.D.43 (except 105.D.43.f), 105.D.45–.47, 105.E through 105.I, 105.J.1, 105.K, 105.L; 109 Definitions (except for ''Carbon Regeneration Unit'', ''Commercial Boiler'', ''Commercial Industrial Furnace'', ''Consignee'', ''Containment Building'', ''Designated Facility'', ''EPA Acknowledgement of Consent'', Item 7 of ''Hazardous Waste'', Item 2 of ''Incinerator'', Item 12 of ''Industrial Furnace'', ''Infrared Incinerator'', the phrase ''containment building'' in ''Miscellaneous Unit'', ''Partial Closure'', the phrase ''and that is not a containment building'' in ''Pile'', ''Plasma Arc Incinerator'', ''Primary Exporter'', ''Receiving Country'', ''Sludge Dryer'', ''Solid Waste'', ''Transit Country'' and ''Waste Reduction''), 111; Chapter 3, Sections 303, 305.B–.E, 307, 309 (except 309.L.3.b), 311.B&.E, 313, 315.A–.D, 317, 319, 321 (except 321.C.2.i), 322, 323.A , 323.B introductory paragraph, 323.B.1, 323.B.2 (except 323.B.2.e), 323.B.4, 325 and 329; Chapter 5, Sections 501, 505, 507 through 513, 515 (except for 515.25), 516, 517 (except 517.V), 519, 520, 521 through 532, 533 (except 533.B), 534 and 536; Chapter 7, Section 701; Chapter 9, Sections 901 through 923; Chapter 11, Sections 1101 (except 1101.B&.F), 1103 introductory paragraph, 1103.B (except the phrase ''For the purposes of compliance with LAC 33:V.Chapter 22, or''), 1105, 1107 (except 1107.A.4 and 1107.D.5), 1108, 1109 (except 1109.E.1.d, E.8 and E.9), 1111.A, 1111.B.1 introductory paragraph (except the phrase ''to a treatment, storage, or disposal facility within the United States''), 1111.B.1.a–.c, 1111.B.1.d (except the phrase ''within the United States''), 1111.B.1.e (except the phrase ''within the United States''), 1111.B.1.f, 1111.B.2 (except the phrase ''for a period of at least three years from the date of the report'' and the third and fourth sentences), 1111.C–.D, 1113, 1115 through 1121; Chapter 13, Sections 1301 through 1305, 1307.A introductory paragraph (except last sentence), 1307.B, 1307.C (except last sentence), 1307.D, 1307.E (except the phrase ''and, for exports, an EPA Acknowledgement of Consent'' at 1307.E.2), 1307.F (except the phrase ''and, for exports, an EPA Acknowledgement of Consent'' at 1307.F.2), 1307.G (except 1307.G.4), 1307.H, 1309, 1311, 1315 through 1323; Chapter 15, Sections 1501 through 1517, 1519 (except 1519.B.8 and 1519.D), 1521 through 1527, 1529 (except 1529.B.12–.19), 1531; Chapter 17, Sections 1701 through 1745; Chapter 19, Sections 1901 (except 1901.C&.D), 1903, 1905.A–.G, 1907, 1909.A–.C, 1911, 1913, 1915.A–.C, 1917 and 1919; Chapter 21, Sections 2101 (except 2101.D), 2103 through 2117; Chapter 23, Sections 2301, 2303 (except 2303.K), 2304 through 2309, 2311 (except the phrase ''the waste and the pile satisfy all applicable requirements of LAC 33:V.Chapter 22, and'' at 2311.A), 2313, 2315 and 2317; Chapter 25, Sections 2501, 2503.A through 2503.J, 2503.K (except 2503.K.1.o), 2503.L–.N, 2504 through 2509, 2511.A introductory paragraph (except the phrase ''the waste and landfill meet all applicable requirements of LAC 33:V.Chapter 22, and''), 2511.A.2 (except the phrase ''or LAC 33:V.4321 for interim status facilities''), 2511.B, 2513 through 2517, 2519 (except 2519.F), 2521 (except 2521.B.2) and 2523; Chapter 26, Sections 2601, 2602 and 2603 (except 2603.F.1); Chapter 27, Sections 2701, 2703 (except for 2703.I&.J), 2705 through 2713, 2715 introductory paragraph (except the phrase ''the waste and the treatment zone meet all applicable requirements of LAC 33:V.Chapter 22, and''), 2715.A&.B, 2717 through 2723; Chapter 29, Sections 2901, 2903 (except 2903.I), 2904

through 2911, 2913 introductory paragraph (except the phrase ''the waste and impoundment satisfy all applicable requirements of LAC 33:V.Chapter 22, and''), 2913.A.1, 2913.A.2 (except the phrase ''or for interim status facilities;''), 2915 and 2917; Chapter 31, Sections 3101, 3103 , 3105 (except 3105.D), 3107 through 3121; Chapter 32, sections 3201 through 3207; Chapter 33, Sections 3301, 3303 (except 3303.C&.D), 3305 through 3313, 3315 (except for 3315.K), 3317 through 3322, 3323 (except the phrase ''or its successor agency'' at 3323.D) and 3325; Chapter 35, Sections 3501 through 3505, 3507 (except the phrase ''1803, 1911'' at 3507.C), 3509 through 3527; Chapter 37, Sections 3701, 3703, 3705 (except the last sentence of 3705.D), 3707.A–.F, 3707.G (except the phrase ''and financial test and guarantee, except that the financial test and guarantee may not be combined'' in the second sentence), 3707.H, 3707.I (except the phrase '', and for facilities subject to LAC 33:V.3525 * * * LAC 33:V.3525.B.2'', and the two occurrences of the phrase ''or that the owner or operator has failed * * * LAC 33:V.3525''), 3709 through 3713, 3715 (except 3715.F.8), 3717 through 3719; Chapter 40, Sections 4001 through 4025, 4027 (except 4027.C), 4029 through 4093; Chapter 41, Sections 4101, 4103, 4105 introductory paragraph, 4105.A, 4105.B (introductory paragraph), 4105.B.1 introductory paragraph (except the phrase ''except that''), 4105.B.1 (except 4105.B.1.a&.b), 4105.B.2, 4105.B.4–.14, 4105.C, 4105.E, 4107 through 4113, 4115.A (except the reference ''22,''), 4115.B, 4137, 4139.A.1, 4139.A.2 (except 4139.A.2.b&.c), 4139.B.1, 4139.B.4, 4143, 4145; Chapter 43, Sections 4301 (except the last sentence of 4301.E), 4302, 4303 through 4305, 4307 through 4335, 4337 through 4349, 4351 through 4355, 4357 (except 4357.B.8–.14), 4359 through 4365, 4367 through 4375, 4377 (except 4377.B.4), 4379 (except the phrase ''and LAC 33:V.4705'' at 4379.C), 4381 through 4395, 4397, 4399 (except 4399.A.6.i), 4401, 4403 (except for the phrase ''and after receiving the certification required under LAC 33:V.4393.B.2 for facilities subject to LAC 33:V.4393'' and the two occurrences of the phrase ''or that the owner or operator has failed * * * LAC 33:4393'' in 4403.H), 4405 through 4411, 4413, 4417 through 4429, 4431 through 4445, 4447 through 4455, 4457.A, 4457.B (except the first occurrence of 4457.B.2), 4459 (except the phrase ''the waste and impoundment satisfy all applicable requirements of LAC 33:V.Chapter 22.'' at 4459.A), 4461, 4462 (except 4462.H), 4463 through 4470, 4471 (except the phrase ''the waste and pile satisfy all applicable requirements of LAC 33:V.Chapter 22 and''), 4472 through 4476, 4477 through 4493, 4495 through 4499, 4501 (except 4501.D.3), 4502, 4503 (except the phrase ''and landfill meet all applicable requirements of LAC 33:V.Chapter 22, and the waste'' at 4503.A introductory paragraph), 4505 through 4509, 4511 introductory paragraph, 4511.A–.D, 4511.E (except the two occurrences of the reference ''and F''), 4512, 4513 through 4522, 4523 (except the phrase ''and LAC 33:V.Chapter 30 * * * LAC 33:V.109'' at the end of the paragraph), 4525 through 4534, 4535 through 4547, 4549 through 4559, 4561 through 4589, 4591 through 4601; Chapter 49, Sections 4901.A through 4901.F, 4901.G (except the entries for EPA Hazardous Waste Numbers K042 and 151 in Table 6), 4903 through 4907, Appendices A through D.

Louisiana Administrative Code, Title 33, Part V, Hazardous Waste and Hazardous Materials, Amendments for July 1995—March 1996: Chapter 1, Sections 109 ''Designated facility'', 109 ''Partial Closure'', 109 ''Solid Waste''; Chapter 3, Sections 305.A, 309.L.3.b, 321.C.2.i, 323.B.2.e, 323.B.4.c, Chapter 5, Section 533.B; Chapter 7, Section 706; Chapter 11, Section 1101.B; Chapter 25, Section 2521.B.2; Chapter 26, Section 2603.F.1; Chapter 28, Sections 2801 through 2809; Chapter 41, Sections 4115.C, 4139.B.2&.3; Chapter 49, Sections 4901.G Table 6 (entries for EPA Hazardous Waste Numbers K042 and 151 only), Appendix A (entry for 2,6–Toluenedine only) and Appendix B (paragraphs 8.2 and 8.2.5 through 8.2.5.4).

Copies of the Louisiana regulations that are incorporated by reference are available from Office of the State Register, P.O. Box 94095, Baton Rouge, LA 70804–9095.

MINNESOTA

The statutory provisions include: Minnesota Statutes, June 1992 edition, Chapters 13.03; 13.05 Subdivision 9; 13.08; 13.37; 15.17; 15.171; 115.061; 115A.03; 116.06; 116.07 Subdivisions 4, 4a, 4b, 5 and 8; 116.075; 116.081 Subdivisions 1 and 3; and 116.14.

The regulatory provisions include: Minnesota Rules, June 1992 edition, 7001.0010; 7001.0020(B); 7001.0030–7001.0150(3)(C); 7001.0150(3)(E)–7001.0200; 7001.0500–7001.0730(2); 7001.0730(4); 7045.0020–7045.0143; 7045.0205–7045.0270(6); 7045.0275–7045.0310; 7045.0351–7045.0685; 7045.0692–7045.0695; 7045.1300–7045.1380 (June 1992 edition).

MISSOURI

The statutory provisions include: 260.350–260.360(3), 260.360(5)–260.360(12), 260.360(14)–260.360(19), 260.380–1.–260.380–1.(9), 260.380–2., 260.385(2)–260.390(7), 260.390(9), 260.395–6.–260.395–7.(4), 260.395–7.(7)–260.395–18.

The regulatory provisions include: 3.260–3.260(1)(A)20, 3.260(1)(A)22–3.260(1)(A)23, 3.260(2), 4.261–4.261(2)(A)5, 5.262–5.262(2)(B)1., 5.262(2)(B)3.–5.262(2)(C)1., 5.262(2)(C)2.A.–5.262(2)(D), 5.262(2)(D)2.–5.262(2)(H), 6.263–6.263(2)(A)2., 6.263(2)(A)5.–6.263(2)(A)10.C, 6.263(2)(B)–6.263(2)(D)2., 7.264–7.264(2)(A)2., 7.264(2)(B)2.–7.264(2)(O), 7.264(2)(X), 7.265–7.265(2)(A), 7.265(2)(E)–7.265(2)(K), 7.266–7.266(2), 7.268–7.268(2), 7.268(2)(A)., 7.268(2)(A)4.–7.268(2)(C), 7.270–7.270(2)(B)6., 7.270(2)(B)9., 7.270(2)(B)11., 7.270(2)(B)14.–

7.270(2)(B)17., 7.270(2)(C)–7.270(2)(C)1., 7.270(2)(C)1.B.–7.270(2)(C)1.C., 7.270(2)(C)2.–7.270(2)(C)2.C., 7.270(2)(C)2.E., 7.270(2)(D)–7.270(2)(D)3., 7.270(2)(E)–7.270(2)(G).

NEW MEXICO

The statutory provisions include:

New Mexico Statutes 1978 Annotated, Hazardous Waste Act, Chapter 74, Article 4 (1993 Replacement Pamphlet), Sections 74–4–2, 74–4–3 (except 74–4–3L, 74–4–3O and 74–4–3R), 74–4–3.1, 74–4–4.2A, 74–4–4.2B, 74–4–4.2G introductory paragraph, 74–4–4.2G(2), 74–4–4.3F, 74–4–4.7 (except 74–4–4.7B and 74–4–4.7C), 74–4–9 and 74–4–10.1C, as published by the Michie Company, Law Publishers, 1 Town Hall Square, Charlottesville, Virginia 22906–7587.

The regulatory provisions include:

Title 20, Chapter 4, Part 1, New Mexico Annotated Code (20 NMAC 4.1), effective November 11, 1995, Subpart I, Sections 4.1.101 and 4.1.102; Subpart II, Section 4.1.200; Subpart III, Sections 4.1.300 and 4.1.301; Subpart IV, Sections 4.1.400 and 4.1.401; Subpart V, Sections 4.1.500 and 4.1.501; Subpart VI, Sections 4.1.600 and 4.1.601; Subpart VII, Section 4.1.700; Subpart VIII, Section 4.1.800; Subpart IX, Sections 4.1.900, 4.1.901.B.1 through 4.1.901.B.6; and Subpart X, Section 4.1.1103. Copies of the New Mexico regulations can be obtained from the New Mexico Commission of Public Records, State Records Center and Archives, State Rules Division, 404 Montezuma Avenue, Santa Fe, NM 87501–2502.

OKLAHOMA

The statutory provisions include:

Oklahoma Hazardous Waste Management Act, as amended, 27A Oklahoma Statute 1997 Edition, effective August 30, 1996, sections 2–7–103, 2–7–108(A), 2–7–108(B)(1), 2–7–108(B)(3), 2–7–108(C), 2–7–110(B), 2–7–110(C), 2–7–111(A), 2–7–111(B) (except the last sentence and the phrase,'' recycling'' in the first sentence), 2–7–111(C)(2)(a) (except the phrase ''Except as provided in subparagraph b of this paragraph'' and the word ''recycling'' in the first sentence), 2–7–111(D), 2–7–111(E) (except the word ''recycling'' in the first sentence), 2–7–112, 2–7–116(B) through 2–7–116(F), 2–7–116(H)(2), 2–7–118(A), 2–7–124, 2–7–125 and 2–7–127.

Copies of the Oklahoma statutes that are incorporated by reference are available from West Publishing Company, 610 Opperman Drive, P. O. Box 64526, St. Paul, Minnesota 55164–0526.

The regulatory provisions include:

The Oklahoma Administrative Code, Title 252, Chapter 200, 1996 Edition, effective July 1, 1996: subchapter 1, sections 252:200–1–1(a) and 252:200–1–2; subchapter 3, sections 252:200–3–5 and 252:200–3–6; subchapter 5, sections 252:200–5–3 and 252:200–5–5; subchapter 7, sections 252:200–7–1 through 252:200–7–4; subchapter 9 (except 252:200–9–2, 252:200–9–6 and 252:200–9–7); subchapter 11, sections 252:200–11–1 (except the phrases ''or off-site recycling'' and ''(TSDRs)''), 252:200–11–3(a) (except the word ''recycling''), 252:200–11–3(b) through 252:200-11–3(d), 252:200–11–4(a)(1) (except the phrases ''Except as otherwise provided in this section'' and ''or recycling''), 252:200-11–4(a)(5) (except the phrase ''For the purposes of this section''), 252:200–11–4(b) through 252:200–11–4(e); and subchapter 13, sections 252:200–13–2 introductory paragraph, 252:200–13–2(1) and 252:200–13–2(2) first sentence.

The Oklahoma Administrative Code Title 252, Chapter 200, 1997 Supplement, effective June 2, 1997: subchapter 3, sections 252:200–3–1, 252:200–3–2 (except 252:200–3–2(1)) and 252:200–3–4(a) and 252:300–3–4(b)(4)–(15); subchapter 5, sections 252:200–5–1, 252:200–5–4 and 252:200–5–6; and subchapter 9, section 252:200–9–2.

Copies of the Oklahoma regulations that are incorporated by reference can be obtained from The Oklahoma Register, Office of Administrative Rules, Secretary of State, 101 State Capitol, Oklahoma City, Oklahoma 73105.

TEXAS

The statutory provisions include:

Texas Health and Safety Code (THSC) Annotated, (Vernon 1992), effective September 1, 1991: Chapter 361, The Texas Solid Waste Disposal Act, sections 361.003 (introductory paragraph), 361.003(1), 361.082(a), 361.082(f), 361.086, 361.087, 361.093, 361.095(a), 361.099(b), and 361.110; Chapter 371, The Texas Oil Collection, Management, and Recycling Act, section 371.041(a).

Texas Health and Safety Code (THSC) Annotated, (Vernon 1997 Supplement), effective September 1, 1996: Chapter 361, The Texas Solid Waste Disposal Act, sections 361.003 except (3), (4), (19), (27), (35) and (39)), 361.066(a), and 361.094; Chapter 371, The Texas Oil Collection, Management, and Recycling Act, sections 371.003, 371.024(b), and 371.026(d).

Copies of the Texas statutes that are incorporated by reference are available from West Publishing Company, 610 Opperman Drive, P. O. Box 64526, St. Paul, Minnesota 55164–0526.

The regulatory provisions include:

Texas Administrative Code (TAC), Title 30, Environmental Quality, 1994, as amended, effective through January 1, 1994: Chapter 305, section 305.50(4); Chapter 335, sections 335.6(d) (except last sentence), 335.6(e), 335.9(b), 335.10(a) (introductory paragraph), 335.10(a)(1), 335.10(b)(5)&(8), 335.13(c)&(d), 335.13(g), 335.15 (introductory paragraph), 335.23(2), 335.24(e), 335.71, 335.214(a).

Texas Administrative Code (TAC), Title 30, Environmental Quality, 1997, as amended, effective through January 1, 1997: Chapter 20, section 20.15; Chapter 281, section 281.3(c);

Chapter 305, 305.1(a), 305.2 (except the definitions for ''by-pass,'' ''Class I sludge management facility,'' ''component,'' ''continuous discharge,'' ''CWA,'' ''daily average concentration,'' ''daily average flow,'' ''direct discharge,'' ''discharge monitoring report,'' ''effluent limitation,'' ''Environmental Protection Agency,'' ''facility mailing list,'' ''functionally equivalent component,'' ''indirect discharger,'' ''injection well permit,'' ''National Pollution Discharge Elimination System,'' ''new discharger,'' ''new source,'' ''outfall,'' ''primary industry category,'' ''process wastewater,'' ''publicly owned treatment works,'' ''recommencing discharger,'' ''regional administrator,'' ''schedule of compliance,'' ''severe property damage,'' ''sewage sludge,'' ''Texas pollution discharge elimination system,'' ''toxic pollutant,'' ''treatment works treating domestic sewage,'' ''variance,'' and ''wetlands''), 305.29(a)&(d), 305.41, 305.42, 305.43(b), 305.44, 305.45, 305.47, 305.50 (introductory paragraph), 305.50(1), 305.50(2) (except the paragraph beginning ''Also to be submitted are listings * * *'' to the end of the subsection), 305.50(3), 305.50(5)–(8), 305.50(13)&(14), 305.51, 305.61, 305.62(a) (except the phrase ''§305.70 of this title * * * Solid Waste Class I Modifications'' in the first sentence and the fifth sentence ''If the permittee requests a modification of a municipal solid waste permit * * * Solid Waste Class I Modifications.''), 305.62(b)–(h), 305.63 (introductory paragraph), 305.63(1)&(2), 305.63(3) (except the last sentence), 305.63(4)–(6), 305.64(a), 305.64(b) (except 305.64(b)(4)&(5)), 305.64(c), 305.64(e), 305.64(g), 305.66(a) (except 305.66(a)(7)&(8)), 305.67, 305.69 (except 305.69(i) A.8–A.10), 305.121, 305.122(a)–(c), 305.124, 305.125 (except 305.125(1), (3), and (20)), 305.127 (introductory paragraph), 305.127(1)(B)(iii), 305.127(1)(E)&(F), 305.127(2)&(3), 305.127(4)(B), 305.127(5)(C), 305.128, 305.141 through 305.145, 305.146 (introductory paragraph), 305.146(1), 305.150, 305.171 through 305.174, 305.181 through 305.184, 305.191 through 305.194, 305.401(c), 305.571, 305.572 (except the date ''September 5, 1991'' in the (introductory paragraph)), 305.573; Chapter 324, sections, 324.1 through 324.4, 324.6, 324.7, 324.11 through 324.16, 324.21; Chapter 335, sections 335.1 (introductory paragraph), 335.1 (except the definitions for ''activities associated with the exploration, development, and protection of oil or gas, or geothermal resources,'' ''class 1 wastes,'' ''class 2 wastes,'' ''class 3 wastes,'' ''commercial hazardous waste facility,'' ''contaminant,'' ''contaminated medium/media,'' ''control,'' ''decontaminate,'' ''essentially insoluable,'' ''hazardous industrial waste,'' ''hazardous substance,'' ''industrial solid waste,'' ''Petroleum substance,'' ''remediation,'' ''remove,'' shipment,'' ''spill,'' and ''treatment''), 335.2(a), 335.2(c)–(g), 335.2(i)&(j), 335.4, 335.5, 335.6(a)–(c), 335.6(f)–(j), 335.7, 335.8(a)(3)&(4), 335.9 (except 335.9(b)), 335.10(a)(3) (except the phrase '', unless the generator is identified in paragraph (2) of this section''), 335.10(a)(4), 335.10(a)(6), 335.10(b) (except 335.10(b)(5)&(8)), 335.10(c) (except the phrase ''the United States customs official,''), 335.10(d)–(f), 335.11 (except 335.11(d)), 335.12 (except 335.12(a)(5)), 335.13(a), 335.13(e)&(f), 335.14, 335.15(1), 335.17, 335.18, 335.19, 335.20 through 335.22, 335.23 (except 335.23(2)), 335.24(a)–(d), 335.24(f), 335.29, 335.30, 335.31, 335.41(a)–(h), 335.43 through 335.45, 335.47 (except the second sentence in 335.47(c)(3)), 335.61(a)–(e), 335.63 through 335.68, 335.69(a)–(h), 335.70, 335.73, 335.74, 335.76, 335.77, 335.78 (except 335.78(d)(2)), 335.91 through 335.94, 335.111, 335.112 (except 335.112(a)(17)), 335.113, 335.114(a), 335.115 through 335.123, 335.124 (except second sentence in 335.124(e)), 335.125 through 335.127, 335.151 through 335.153, 335.154(a), 335.155 through 335.178, 335.201(a) (except 335.201(a)(3)), 335.201(c), 335.202 (except the definitions for ''active geologic processes,'' ''area subject to active shoreline erosion,'' ''areas of direct drainage,'' ''commercial hazardous waste management facility,'' ''critical habitat of an endangered species,'' ''erosion,'' ''public water system,'' and ''residence''), 335.203, 335.204(a) (introductory paragraph), 335.204(a)(1)–(5), 335.204(b)(1)–(6), 335.204(c)(1)–(5), 335.204(d)(1)–(5), 335.204(e) (introductory paragraph), 335.204(e)(1) (introductory paragraph) (except the phrase ''Except as * * * (B) of this paragraph,'' and the word ''event'' at the end of the paragraph), 335.204(e)(2)–(7), 335.204(f), 335.205(a)&(b), 335.205(i), 335.211 through 335.213, 335.214(b), 335.221 through 335.226, 335.241, 335.251, 335.361 through 335.367, 335.431, and 335.504.

Copies of the Texas regulations that are incorporated by reference are available from West Publishing Company, 610 Opperman Drive, P. O. Box 64526, St. Paul, Minnesota 55164–0526.

UTAH

The regulatory provisions include:

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)&(f), R315–2–11(e)&(f), R315–2–17, and R315–2–25(d); R315–3 except R315–3–1(b)&(c), R315–3–3(b)(3), R315–3–3(i)(1)–(3), R315–3–3(n)(8)(iv), R315–3–11(a)&(b), R315–3–11(f), R315–3–13(a)(4),R 315–3–16(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 R315–7–8.1(c)(12)(iv), R315–7–18.9(d)(2)(i)(A) phrase ''given the specific site conditions and the nature and extent of contamination''; R315–8 except R315–8–1(e)(10)(iv), R315–8–6.1(a)(3), R315–8–6.12(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(l)(4), R315–16–2.4(d), R315–16–2.5(e), R315–16–2.12, R315–16–3.4(d), R351–16–3.5(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.

Utah Administrative Code revised as of May 15, 1996: Section R315–15, except R315–15–1.1(j)&(k), R315–15–1.3(b), R315–15–2.1(a)(1)&(4), R315–15–2.3(c)(1), R315–15.2.3(d), R315–15–2.4(a), R315–15–2.4(d)&(e), R315–15–3.1(b), R315–15–3.2(a), R315–15–4.6(f), R315–15–5.1(c), R315–15–5.5(e), R315–15–6.5(e), R315–15–7.1(d), R315–15–8.3, R315–15–9, R315–15–10, R315–15–11 with respect to used oil transfer and off-specification used oil burning facilities, R315–15–12, R315–15–13.5(a)–(c) &(e), R315–15–14, and R315–15–15.

Utah Administrative Code revised as of October 16, 1997: R315–2–3(d)(2), R315–2–10(e), R315–8–6.12(b), R315–8–14.10(b), R315–15–1.3(b), R315–15–2.1(a)(1)&(4), R315–15–2.3(c)(1), R315–15.2.3(d), R315–15–2.4(a), R315–15–2.4(d)&(e), R315–15–3.1(b), R315–15–3.2(a), R315–15–4.6(f), R315–15–5.5(e), R315–15–6.5(e), R315–15–8.3, and R315–15–9.

Utah Administrative Code revised as of February 20, 1998: R315–1–1(a), R315–1–2(a), R315–2–5, R315–2–6, R315–2–10(f), R315–2–11(e), R315–2–11(f), R315–2–17, R315–3–3(b)(3), R315–13–1, R315–14–7, R315–16–5.1(a), R315–50–9, R315–50–10, and R315–50–12.

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.

WISCONSIN

The statutory provisions include: Wisconsin Statutes, Volume 3, Sections: 144.01; 144.43–433; 144.44 (except 144.44(4)(a)); 144.441(1)–(2); 144.441(3) (b), (f), and (g); 144.441(4) (a) and (c)–(g); 144.441(6); 144.442(1), (4)–(11); 144.443; 144.444; 144.60–144.63; and 144.64 (2)–(3) (except for 144.64(2)(e)(1)).

The regulatory provisions include: Wisconsin Administrative Code, Volume 12, § NR 600.01–600.04(2); 600.06; 600.3–600.11; 605.02; 605.04–605.11; Appendix II, III, IV and V; 610.01–610.09(2); 615.01–615.13(2)(b); 620.01; 620.04–620.10(3); 620.14; 625.04(4); 625.05(1)–625.07(7)(c)12; 625.12(1) and (2); 630.02; 630.04–630.40(3)(c); 635.02; 635.05–635.16(17)(d); 635.17(1), (2) and (3); 640.02; 640.06(2)(b); 640.09–640.22(22); 645.04–645.14; 645.17(1)(a)(1)–645.17(1)(a)3.e; 650; 655.02; 655.05–655.13(13); 660.02; 660.08–660.20(2); 665.02; 665.05(1)–665.10(2); 670.06–670.11(2)(d)3; 675.01–675.30(6); 680.01–680.51(5); 685.02; 685.05–685.08(13)(b).

[58 FR 3500, Jan. 11, 1993]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting appendix A to part 272, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

PART 273—STANDARDS FOR UNIVERSAL WASTE MANAGEMENT

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AUTHORITY: 42 U.S.C. 6922, 6923, 6924, 6925, 6930, and 6937.

SOURCE: 60 FR 25542, May 11, 1995, unless otherwise noted.

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) Thermostats 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.

[60 FR 25542, May 11, 1995, as amended at 64 FR 36488, July 6, 1999]

§ 273.2 Applicability—batteries.

(a) *Batteries covered under 40 CFR part 273.* (1) The requirements of this part apply to persons managing batteries, as described in § 273.9, except those listed in paragraph (b) of this section.

(2) Spent lead-acid batteries which are not managed under 40 CFR part 266, subpart G, are subject to management under this part.

(b) *Batteries not covered under 40 CFR part 273.* The requirements of this part do not apply to persons managing the following batteries:

(1) Spent lead-acid batteries that are managed under 40 CFR part 266, subpart G.

(2) Batteries, as described in § 273.9, that are not yet wastes under part 261 of this chapter, including those that do not meet the criteria for waste generation in paragraph (c) of this section.

(3) Batteries, as described in § 273.9, that are not hazardous waste. A battery 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 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 cancelled 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, and unused pesticide products described in paragraph (a)(2) of this section, that are managed by farmers in compliance with 40 CFR 262.70. (40 CFR 262.70 addresses pesticides disposed of on the farmer's own farm in a manner consistent with the disposal instructions on the pesticide label, providing the container is triple rinsed in accordance with 40 CFR 261.7(b)(3));

(2) Pesticides not meeting the conditions set forth in paragraph (a) of this section. These pesticides must be managed in compliance with the hazardous waste regulations in 40 CFR parts 260 through 272;

(3) Pesticides that are not wastes under part 261 of this chapter, including those that do not meet the criteria for waste generation in paragraph (c) of this section or those that are not wastes as described in paragraph (d) of this section; and

(4) Pesticides that are not hazardous waste. A pesticide is a hazardous waste if it is listed in 40 CFR part 261, subpart D or if it exhibits one or more of the characteristics identified in 40 CFR part 261, subpart C.

(c) *When a pesticide becomes a waste.* (1) A recalled pesticide described in paragraph (a)(1) of this section becomes a waste on the first date on which both of the following conditions apply:

(i) The generator of the recalled pesticide agrees to participate in the recall; and

(ii) The person conducting the recall decides to discard (e.g., burn the pesticide for energy recovery).

(2) An unused pesticide product described in paragraph (a)(2) of this section becomes a waste on the date the generator decides to discard it.

(d) *Pesticides that are not wastes.* The following pesticides are not wastes:

(1) Recalled pesticides described in paragraph (a)(1) of this section, provided that 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 use constituting disposal) or reuse (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 destination for use or reuse, remains subject to the requirements of FIFRA.

(2) Unused pesticide products described in paragraph (a)(2) of this section, if the generator of the unused pesticide product has not decided to discard (e.g., burn for energy recovery) them. These pesticides remain subject to the requirements of FIFRA.

[60 FR 25542, May 11, 1995, as amended at 64 FR 36488, July 6, 1999]

§ 273.4 Applicability—mercury thermostats.

(a) *Thermostats covered under this part 273.* The requirements of this part apply to persons managing thermostats, as described in § 273.9, except those listed in paragraph (b) of this section.

(b) *Thermostats not covered under 40 CFR part 273.* The requirements of this part do not apply to persons managing the following thermostats:

(1) Thermostats that are not yet wastes under part 261 of this chapter. Paragraph (c) of this section describes when thermostats become wastes.

(2) Thermostats that are not hazardous waste. A thermostat is a hazardous waste if it exhibits one or more of the characteristics identified in 40 CFR part 261, subpart C.

(c) *Generation of waste thermostats.* (1) A used thermostat becomes a waste on the date it is discarded (e.g., sent for reclamation).

(2) An unused thermostat 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]

§ 273.5 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.

[64 FR 36488, July 6, 1999]

§§ 273.6–273.7 [Reserved]

§ 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.

[64 FR 36488, July 6, 1999]

§ 273.9 Definitions.

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 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.

FIFRA means the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136–136y).

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, thermostats, 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 5,000 kilograms or more total of universal waste is accumulated.

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 total of universal waste (batteries, pesticides, thermostats, 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 waste 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) Thermostats 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.

[60 FR 25542, May 11, 1995, as amended at 63 FR 71230, Dec. 24, 1998. Redesignated and amended at 64 FR 36488, 36489, July 6, 1999]

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 prevent 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) *Universal waste thermostats.* A small quantity handler of universal waste must manage universal waste thermostats 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 thermostat 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 thermostat, 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 remove mercury-containing ampules from universal waste thermostats provided the handler:

(i) Removes the ampules in a manner designed to prevent breakage of the ampules;

(ii) Removes 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 containment device 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; and

(3)(i) A small quantity handler of universal waste who removes mercury-containing ampules from thermostats 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 (e.g., remaining thermostat units).

(ii) If the mercury, residues, 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 mercury, residues, and/or other waste and must manage it is subject to 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.

[60 FR 25542, May 11, 1995, as amended at 64 FR 36489, July 6, 1999]

§ 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) Universal waste thermostats (i.e., each thermostat), or a container in which the thermostats are contained, must be labeled or marked clearly with any one of the following phrases: ''Universal Waste—Mercury Thermostat(s),'' or ''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 one of the following phrases: ''Universal Waste—Lamp(s),'' or ''Waste Lamp(s),'' or ''Used Lamp(s)''.

[60 FR 25542, May 11, 1995, as amended at 64 FR 36489, July 6, 1999]

§ 273.15 Accumulation time limits.

(a) A small 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 small 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 is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal.

(c) A small quantity handler of universal waste who accumulates 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 each 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 each universal waste 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.

§ 273.16 Employee training.

A small quantity handler of universal waste must inform all employees who handle or have responsibility for managing universal waste. The information must describe proper handling and emergency procedures appropriate to the type(s) of universal waste handled at the facility.

§ 273.17 Response to releases.

(a) A small quantity handler of universal waste must immediately contain all releases of universal wastes and other residues from universal wastes.

(b) A small 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 must manage it in compliance with 40 CFR part 262.

§ 273.18 Off-site shipments.

(a) A small 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 small quantity handler of universal waste self-transports 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 parts 171 through 180, a small 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 small 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 small 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 small 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 small 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.

§ 273.19 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 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.

[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).

[64 FR 36489, July 6, 1999]

§ 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, thermostats, lamps);

(5) A statement indicating that the handler is accumulating more than 5,000 kg of universal waste at one time and the types of universal waste (e.g., batteries, pesticides, thermostats, and lamps) the handler is accumulating above this quantity.

[60 FR 25542, May 11, 1995, as amended at 64 FR 36489, July 6, 1999]

§ 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) *Universal waste thermostats.* A large quantity handler of universal waste must manage universal waste thermostats 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 thermostat 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 thermostat, 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 remove mercury-containing ampules from universal waste thermostats provided the handler:

(i) Removes the ampules in a manner designed to prevent breakage of the ampules;

(ii) Removes ampules only over or in a containment device (e.g., tray or pan sufficient to 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 containment device 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; and

(3)(i) A large quantity handler of universal waste who removes mercury-containing ampules from thermostats 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 (e.g., remaining thermostat units).

(ii) If the mercury, residues, 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 mercury, residues, and/or other waste and is subject to 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]

§ 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 the 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) Universal waste thermostats (i.e., each thermostat), or a container or tank in which the thermostats are contained, must be labeled or marked clearly with any one of the following phrases: ''Universal Waste—Mercury Thermostat(s),'' or ''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)''.

[60 FR 25542, May 11, 1995, as amended at 64 FR 36489, July 6, 1999]

§ 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-transports 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 shipment.

[60 FR 25542, May 11, 1995, as amended at 61 FR 16316]

Subpart E—Standards for Destination Facilities

§ 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 124 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).

[60 FR 25542, May 11, 1995, as amended at 64 FR 36490, July 6, 1999]

§ 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 a 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 businesses, office complexes, conditionally exempt small quantity generators, small businesses, government organizations, as well as large industrial facilities);

(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 36490, July 6, 1999]

PART 279—STANDARDS FOR THE MANAGEMENT OF USED OIL

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AUTHORITY: Sections 1006, 2002(a), 3001 through 3007, 3010, 3014, and 7004 of the Solid Waste Disposal Act, as amended (42 U.S.C. 6905, 6912(a), 6921 through 6927, 6930, 6934, and 6974); and sections 101(37) and 114(c) of CERCLA (42 U.S.C. 9601(37) and 9614(c)).

SOURCE: 57 FR 41612, Sept. 10, 1992, unless otherwise noted.

Subpart A—Definitions

§ 279.1 Definitions.

Terms that are defined in §§ 260.10, 261.1, and 280.12 of this chapter have the same meanings when used in this part.

Aboveground tank means a tank used to store or process used oil that is not an underground storage tank as defined in § 280.12 of this chapter.

Container means any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

Do-it-yourselfer used oil collection center means any site or facility that accepts/aggregates and stores used oil collected only from household do-it-yourselfers.

Existing tank means a tank that is used for the storage or processing of used oil and that is in operation, or for which installation has commenced on or prior to the effective date of the authorized used oil program for the State in which the tank is located. Installation will be considered to have commenced if the owner or operator has obtained all federal, state, and local approvals or permits necessary to begin installation of the tank and if either (1) A continuous on-site installation program has begun, or

(2) The owner or operator has entered into contractual obligations—which cannot be canceled or modified without substantial loss—for installation of the tank to be completed within a reasonable time.

Household ''do-it-yourselfer'' used oil means oil that is derived from households, such as used oil generated by individuals who generate used oil through the maintenance of their personal vehicles.

Household ''do-it-yourselfer'' used oil generator means an individual who generates household ''do-it-yourselfer'' used oil.

New tank means a tank that will be used to store or process used oil and for which installation has commenced after the effective date of the authorized used oil program for the State in which the tank is located.

Petroleum refining facility means an establishment primarily engaged in producing gasoline, kerosine, distillate fuel 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.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26425, May 3, 1993; 59 FR 10559, Mar. 4, 1994]

Subpart B—Applicability

§ 279.10 Applicability.

This section identifies those materials which are subject to regulation as used oil under this part. This section also identifies some materials that are not subject to regulation as used oil under this part, and indicates whether these materials may be subject to regulation as hazardous waste under parts 260 through 266, 268, 270, and 124 of this chapter.

(a) *Used oil.* EPA presumes that used oil is to be recycled unless a used oil handler disposes of used oil, or sends used oil for disposal. Except as provided in § 279.11, the regulations of this part apply to used oil, and to materials identified in this section as being subject to regulation as used oil, whether or not the used oil or material exhibits any characteristics of hazardous waste identified in subpart C of part 261 of this chapter.

(b) *Mixtures of used oil and hazardous waste*—(1) *Listed hazardous waste.* (i) Mixtures of used oil and hazardous waste that is listed in subpart D of part 261 of this chapter are subject to regulation as hazardous waste under parts 260 through 266, 268, 270, and 124 of this chapter, rather than as used oil under this part.

(ii) *Rebuttable presumption for used oil.* Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in subpart D of part 261 of this chapter. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from SW–846, Edition III, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in appendix VIII of part 261 of this chapter). EPA Publication SW–846, Third Edition, is available from the Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250–7954, (202) 512–1800 (document number 955–001–00000–1).

(A) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling arrangement as described in § 279.24(c), to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids

are recycled in any other manner, or disposed.

(B) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(2) Characteristic hazardous waste. Mixtures of used oil and hazardous waste that solely exhibits one or more of the hazardous waste characteristic identified in subpart C of part 261 of this chapter and mixtures of used oil and hazardous waste that is listed in subpart D solely because it exhibits one or more of the characteristics of hazardous waste identified in subpart C are subject to:

(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.

(i) *Used oil containing PCBs*. In addition to the requirements of this part, marketers and burners of used oil who market used oil containing any quantifiable level of PCBs are subject to the requirements found at 40 CFR 761.20(e).

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26425, May 3, 1993; 59 FR 10559, Mar. 4, 1994; 59 FR 10559, Mar. 4, 1994; 61 FR 33693, June 28, 1996; 63 FR 24969, May 6, 1998; 63 FR 37782, July 14, 1998]

§ 279.11 Used oil specifications.

Used oil burned for energy recovery, and any fuel produced from used oil by processing, blending, or other treatment, is subject to regulation under this part unless it is shown not to exceed any of the allowable levels of the

constituents and properties in the specification shown in Table 1. Once used oil that is to be burned for energy recovery has been shown not to exceed any specification and the person making that showing complies with §§ 279.72, 279.73, and 279.74(b), the used oil is no longer subject to this part.

TABLE 1—USED OIL NOT EXCEEDING ANY SPECIFICATION LEVEL IS NOT SUBJECT TO THIS PART WHEN BURNED FOR ENERGY RECOVERY [1]

Constituent/property	Allowable level
Arsenic	5 ppm maximum.
Cadmium	2 ppm maximum.
Chromium	10 ppm maximum.
Lead	100 ppm maximum.
Flash point	100 °F minimum.
Total halogens	4,000 ppm maximum.[2]
NOTE: Applicable standards for the burning of used oil containing PCBs are imposed by 40 CFR 761.20(e).	

[1] The specification does not apply to mixtures of used oil and hazardous waste that continue to be regulated as hazardous waste (see § 279.10(b)).

[2] Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under § 279.10(b)(1). Such used oil is subject to subpart H of part 266 of this chapter rather than this part when burned for energy recovery unless the presumption of mixing can be successfully rebutted.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26425, May 3, 1993]

§ 279.12 Prohibitions.

(a) *Surface impoundment prohibition.* Used oil shall not be managed in surface impoundments or waste piles unless the units are subject to regulation under parts 264 or 265 of this chapter.

(b) *Use as a dust suppressant.* The use of used oil as a dust suppressant is prohibited, except when such activity takes place in one of the states listed in § 279.82(c).

(c) *Burning in particular units.* Off-specification used oil fuel may be burned for energy recovery in only the following devices:

(1) Industrial furnaces identified in § 260.10 of this chapter;

(2) Boilers, as defined in § 260.10 of this chapter, that are identified as follows:

(i) Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes;

(ii) Utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale; or

(iii) Used oil-fired space heaters provided that the burner meets the provisions of § 279.23.

(3) Hazardous waste incinerators subject to regulation under subpart O of parts 264 or 265 of this chapter.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26425, May 3, 1993]

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-genenerators may decide among them which party will fulfill the requirements of this subpart.

(3) *Diesel fuel.* Mixtures of used oil and diesel fuel mixed by the generator of the used oil for use in the generator's own vehicles are not subject to this part once the used oil and diesel fuel have been mixed. Prior to mixing, the used oil fuel is subject to the requirements of this subpart.

(4) *Farmers.* Farmers who generate an average of 25 gallons per month or less of used oil from vehicles or machinery used on the farm in a calendar year are

not subject to the requirements of this part.

(b) *Other applicable provisions.* Used oil generators who conduct the following activities are subject to the requirements of other applicable provisions of this part as indicated in paragraphs (b)(1) through (5) of this section:

(1) Generators who transport used oil, except under the self-transport provisions of § 279.24 (a) and (b), must also comply with subpart E of this part.

(2) (i) Except as provided in paragraph (b)(2)(ii) of this section, generators who process or re-refine used oil must also comply with subpart F of this part.

(ii) Generators who perform the following activities are not processors provided that the used oil is generated on-site and is not being sent off-site to a burner of on- or off-specification used oil fuel.

(A) Filtering, cleaning, or otherwise reconditioning used oil before returning it for reuse by the generator;

(B) Separating used oil from wastewater generated on-site to make the wastewater acceptable for discharge or reuse pursuant to section 402 or section 307(b) of the Clean Water Act or other applicable Federal or state regulations governing the management or discharge of wastewaters;

(C) Using oil mist collectors to remove small droplets of used oil from in-plant air to make plant air suitable for continued recirculation;

(D) Draining or otherwise removing used oil from materials containing or otherwise contaminated with used oil in order to remove excessive oil to the extent possible pursuant to § 279.10(c); or

(E) Filtering, separating or otherwise reconditioning used oil before burning it in a space heater pursuant to § 279.23.

(3) Generators who burn off-specification used oil for energy recovery, except under the on-site space heater provisions of § 279.23, must also comply with subpart G of this part.

(4) Generators who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in § 279.11 must also comply with subpart H of this part.

(5) Generators who dispose of used oil, including the use of used oil as a dust suppressant, must also comply with subpart I of this part.

[57 FR 41612, Sept. 10, 1992, as amended at 59 FR 10560, Mar. 4, 1994]

§ 279.21 Hazardous waste mixing.

(a) Mixtures of used oil and hazardous waste must be managed in accordance with § 279.10(b).

(b) The rebuttable presumption for used oil of § 279.10(b)(1)(ii) applies to used oil managed by generators. Under the rebuttable presumption for used oil of § 279.10(b)(1)(ii), used oil containing greater than 1,000 ppm total halogens is presumed to be a hazardous waste and thus must be managed as hazardous waste and not as used oil unless the presumption is rebutted. However, the rebuttable presumption does not apply to certain metalworking oils/fluids and certain used oils removed from refrigeration units.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26425, May 3, 1993]

§ 279.22 Used oil storage.

Used oil generators are subject to all applicable Spill Prevention, Control and Countermeasures (40 CFR part 112) in addition to the requirements of this Subpart. Used oil generators are also subject to the Underground Storage Tank (40 CFR part 280) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this subpart.

(a) *Storage units.* Used oil generators shall not store used oil in units other than tanks, containers, or units subject to regulation under parts 264 or 265 of this chapter.

(b) *Condition of units.* Containers and aboveground tanks used to store used oil at generator facilities must be:

(1) In good condition (no severe rusting, apparent structural defects or deterioration); and

(2) Not leaking (no visible leaks).

(c) *Labels.* (1) Containers and aboveground tanks used to store used oil at generator facilities must be labeled or

marked clearly with the words ''Used Oil.''

(2) Fill pipes used to transfer used oil into underground storage tanks at generator facilities must be labeled or marked clearly with the words ''Used Oil.''

(d) *Response to releases*. Upon detection of a release of used oil to the environment that is not subject to the requirements of part 280, subpart F of this chapter and which has occurred after the effective date of the recycled used oil management program in effect in the State in which the release is located, a generator must perform the following cleanup steps:

(1) Stop the release;

(2) Contain the released used oil;

(3) Clean up and manage properly the released used oil and other materials; and

(4) If necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26425, May 3, 1993; 63 FR 24969, May 6, 1998]

§ 279.23 On-site burning in space heaters.

Generators may burn used oil in used oil-fired space heaters provided that:

(a) The heater burns only used oil that the owner or operator generates or used oil received from household do-it-yourself used oil generators;

(b) The heater is designed to have a maximum capacity of not more than 0.5 million Btu per hour; and

(c) The combustion gases from the heater are vented to the ambient air.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26425, May 3, 1993]

§ 279.24 Off-site shipments.

Except as provided in paragraphs (a) through (c) of this section, generators must ensure that their used oil is transported only by transporters who have obtained EPA identification numbers.

(a) *Self-transportation of small amounts to approved collection centers*. Generators may transport, without an EPA identification number, used oil that is generated at the generator's site and used oil collected from household do-it-yourselfers to a used oil collection center provided that:

(1) The generator transports the used oil in a vehicle owned by the generator or owned by an employee of the generator;

(2) The generator transports no more than 55 gallons of used oil at any time; and

(3) The generator transports the used oil to a used oil collection center that is registered, licensed, permitted, or recognized by a state/county/municipal government to manage used oil.

(b) *Self-transportation of small amounts to aggregation points owned by the generator*. Generators may transport, without an EPA identification number, used oil that is generated at the generator's site to an aggregation point provided that:

(1) The generator transports the used oil in a vehicle owned by the generator or owned by an employee of the generator;

(2) The generator transports no more than 55 gallons of used oil at any time; and

(3) The generator transports the used oil to an aggregation point that is owned and/or operated by the same generator.

(c) *Tolling arrangements*. Used oil generators may arrange for used oil to be transported by a transporter without an EPA identification number if the used oil is reclaimed under a contractual agreement pursuant to which reclaimed oil is returned by the processor/re-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.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26425, May 3, 1993]

§ 279.41 Restrictions on transporters who are not also processors or re-refiners.

(a) Used oil transporters may consolidate or aggregate loads of used oil for purposes of transportation. However, except as provided in paragraph (b) of this section, used oil transporters may not process used oil unless they also comply with the requirements for processors/re-refiners in subpart F of this part.

(b) Transporters may conduct incidental processing operations that occur in the normal course of used oil transportation (e.g., settling and water separation), but that are not designed to produce (or make more amenable for production of) used oil derived products unless they also comply with the processor/re-refiner requirements in subpart F of this part.

(c) Transporters of used oil that is removed from oil bearing electrical transformers and turbines and filtered by the transporter or at a transfer facility prior to being returned to its original use are not subject to the processor/re-refiner requirements in subpart F of this part.

[57 FR 41612, Sept. 10, 1992, as amended at 59 FR 10560, Mar. 4, 1994]

§ 279.42 Notification.

(a) *Identification numbers.* Used oil transporters who have not previously complied with the notification requirements of RCRA section 3010 must comply with these requirements and obtain an EPA identification number.

(b) *Mechanics of notification.* A used oil transporter who has not received an EPA identification number may obtain one by notifying the Regional Administrator of their used oil activity by submitting either:

(1) A completed EPA Form 8700–12 (To obtain ordering information for EPA Form 8700–12 call RCRA/Superfund Hotline at 1–800–424–9346 or 703–920–9810); or

(2) A letter requesting an EPA identification number.

Call RCRA/Superfund Hotline to determine where to send a letter requesting an EPA identification number. The letter should include the following information:

(i) Transporter company name;

(ii) Owner of the transporter company;

(iii) Mailing address for the transporter;

(iv) Name and telephone number for the transporter point of contact;

(v) Type of transport activity (i.e., transport only, transport and transfer facility, transfer facility only);

(vi) Location of all transfer facilities at which used oil is stored;

(vii) Name and telephone number for a contact at each transfer facility.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26425, May 3, 1993; 58 FR 33342, June 17, 1993]

§ 279.43 Used oil transportation.

(a) *Deliveries.* A used oil transporter must deliver all used oil received to:

(1) Another used oil transporter, provided that the transporter has obtained an EPA identification number;

(2) A used oil processing/re-refining facility who has obtained an EPA identification number;

(3) An off-specification used oil burner facility who has obtained an EPA identification number; or

(4) An on-specification used oil burner facility.

(b) *DOT Requirements.* Used oil transporters must comply with all applicable requirements under the U.S. Department of Transportation regulations in 49 CFR parts 171 through 180. Persons transporting used oil that meets the definition of a hazardous material in 49 CFR 171.8 must comply with all applicable regulations in 49 CFR parts 171 through 180.

(c) *Used oil discharges.* (1) In the event of a discharge of used oil during transportation, the transporter must take appropriate immediate action to protect human health and the environment (e.g., notify local authorities, dike the discharge area).

(2) If a discharge of used oil occurs during transportation and an official (State or local government or a Federal Agency) acting within the scope of official responsibilities determines that immediate removal of the used oil is necessary to protect human health or the environment, that official may authorize the removal of the used oil by transporters who do not have EPA identification numbers.

(3) An air, rail, highway, or water transporter who has discharged used oil must:

(i) Give notice, if required by 49 CFR 171.15 to the National Response Center (800–424–8802 or 202–426–2675); and

(ii) Report in writing as required by 49 CFR 171.16 to the Director, Office of Hazardous Materials Regulations, Materials Transportation Bureau, Department of Transportation, Washington, DC 20590.

(4) A water transporter who has discharged used oil must give notice as required by 33 CFR 153.203.

(5) A transporter must clean up any used oil discharged that occurs during transportation or take such action as may be required or approved by federal, state, or local officials so that the used oil discharge no longer presents a hazard to human health or the environment.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26425, May 3, 1993]

§ 279.44 Rebuttable presumption for used oil.

(a) To ensure that used oil is not a hazardous waste under the rebuttable presumption of § 279.10(b)(1)(ii), the used oil transporter must determine whether the total halogen content of used oil being transporter or stored at a transfer facility is above or below 1,000 ppm.

(b) The transporter must make this determination by:

(1) Testing the used oil; or

(2) Applying knowledge of the halogen content of the used oil in light of the materials or processes used.

(c) If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in subpart D of part 261 of this chapter. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from SW–846, Edition III, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in Appendix VIII of part 261 of this chapter). EPA Publication SW–846, Third Edition, is available from the Government Printing Office, Superintendent of Documents, PO Box 371954, Pittsburgh, PA 15250–7954. (202) 512–1800 (document number 955–001–00000–1).

(1) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling arrangement as described in § 279.24(c), to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner, or disposed.

(2) The rebuttable presumption does not apply to used oils contaminated

with chlorofluorocarbons (CFCs) removed from refrigeration units if the CFC are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(d) *Record retention.* Records of analyses conducted or information used to comply with paragraphs (a), (b), and (c) of this section must be maintained by the transporter for at least 3 years.

[57 FR 41612, Sept. 10, 1992, as amended at 59 FR 10560, Mar. 4, 1994]

§ 279.45 Used oil storage at transfer facilities.

Used oil transporters are subject to all applicable Spill Prevention, Control and Countermeasures (40 CFR part 112) in addition to the requirements of this subpart. Used oil transporters are also subject to the Underground Storage Tank (40 CFR part 280) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this subpart.

(a) *Applicability.* This section applies to used oil transfer facilities. Used oil transfer facilities are transportation related facilities including loading docks, parking areas, storage areas, and other areas where shipments of used oil are held for more than 24 hours during the normal course of transportation and not longer than 35 days. Transfer facilities that store used oil for more than 35 days are subject to regulation under subpart F of this chapter.

(b) *Storage units.* Owners or operators of used oil transfer facilities may not store used oil in units other than tanks, containers, or units subject to regulation under parts 264 or 265 of this chapter.

(c) *Condition of units.* Containers and aboveground tanks used to store used oil at transfer facilities must be:

(1) In good condition (no severe rusting, apparent structural defects or deterioration); and

(2) Not leaking (no visible leaks).

(d) *Secondary containment for containers.* Containers used to store used oil at transfer facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dikes, berms, or retaining walls; or

(iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(e) *Secondary containment for existing aboveground tanks.* Existing aboveground tanks used to store used oil at transfer facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall except areas where existing portions of the tank meet the ground; or

(iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(f) *Secondary containment for new aboveground tanks.* New aboveground tanks used to store used oil at transfer facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall; or

(iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(g) *Labels.* (1) Containers and aboveground tanks used to store used oil at transfer facilities must be labeled or marked clearly with the words ''Used Oil.''

(2) Fill pipes used to transfer used oil into underground storage tanks at transfer facilities must be labeled or marked clearly with the words ''Used Oil.''

(h) *Response to releases.* Upon detection of a release of used oil to the environment that is not subject to the requirements of part 280, subpart F of this chapter and which has occurred after the effective date of the recycled used oil management program in effect in the State in which the release is located, the owner/operator of a transfer facility must perform the following cleanup steps:

(1) Stop the release;

(2) Contain the released used oil;

(3) Clean up and manage properly the released used oil and other materials; and

(4) If necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26426, May 3, 1993; 63 FR 24969, May 6, 1998]

§ 279.46 Tracking.

(a) *Acceptance.* Used oil transporters must keep a record of each used oil shipment accepted for transport. Records for each shipment must include:

(1) The name and address of the generator, transporter, or processor/re-refiner who provided the used oil for transport;

(2) The EPA identification number (if applicable) of the generator, transporter, or processor/re-refiner who provided the used oil for transport;

(3) The quantity of used oil accepted;

(4) The date of acceptance; and

(5)(i) Except as provided in paragraph (a)(5)(ii) of this section, the signature, dated upon receipt of the used oil, of a representative of the generator, transporter, or processor/re-refiner who provided the used oil for transport.

(ii) Intermediate rail transporters are not required to sign the record of acceptance.

(b) *Deliveries.* Used oil transporters must keep a record of each shipment of used oil that is delivered to another used oil transporter, or to a used oil burner, processor/re-refiner, or disposal facility. Records of each delivery must include:

(1) The name and address of the receiving facility or transporter;

(2) The EPA identification number of the receiving facility or transporter;

(3) The quantity of used oil delivered;

(4) The date of delivery;

(5)(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.

[57 FR 41612, Sept. 10, 1992, as amended at 59 FR 10560, Mar. 4, 1994]

§ 279.47 Management of residues.

Transporters who generate residues from the storage or transport of used oil must manage the residues as specified in § 279.10(e).

Subpart F—Standards for Used Oil Processors and Re-Refiners

§ 279.50 Applicability.

(a) The requirements of this subpart apply to owners and operators of facilities that process used oil. Processing means chemical or physical operations designed to produce from used oil, or to make used oil more amenable for production of, fuel oils, lubricants, or

other used oil-derived products. Processing includes, but is not limited to: blending used oil with virgin petroleum products, blending used oils to meet the fuel specification, filtration, simple distillation, chemical or physical separation and re-refining. The requirements of this subpart do not apply to:

(1) Transporters that conduct incidental processing operations that occur during the normal course of transportation as provided in § 279.41; or

(2) Burners that conduct incidental processing operations that occur during the normal course of used oil management prior to burning as provided in § 279.61(b).

(b) *Other applicable provisions.* Used oil processors/re-refiners who conduct the following activities are also subject to the requirements of other applicable provisions of this part as indicated in paragraphs (b)(1) through (b)(5) of this section.

(1) Processors/re-refiners who generate used oil must also comply with subpart C of this part;

(2) Processors/re-refiners who transport used oil must also comply with subpart E of this part;

(3) Except as provided in paragraphs (b)(3)(i) and (b)(3)(ii) of this section, processors/re-refiners who burn off-specification used oil for energy recovery must also comply with subpart G of this part. Processor/re-refiners burning used oil for energy recovery under the following conditions are not subject to subpart G of this part:

(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:

(i) Processor or re-refiner company name;

(ii) Owner of the processor or re-refiner company;

(iii) Mailing address for the processor or re-refiner;

(iv) Name and telephone number for the processor or re-refiner point of contact;

(v) Type of used oil activity (i.e., process only, process and re-refine);

(vi) Location of the processor or re-refiner facility.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 33342, June 17, 1993]

§ 279.52 General facility standards.

(a) *Preparedness and prevention.* Owners and operators of used oil processors and re-refiners facilities must comply with the following requirements:

(1) *Maintenance and operation of facility.* Facilities must be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of used oil to air, soil, or surface water which could threaten human health or the environment.

(2) *Required equipment.* All facilities must be equipped with the following, unless none of the hazards posed by used oil handled at the facility could

require a particular kind of equipment specified in paragraphs (a)(2)(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 processors and re-refiners facilities must comply with the following requirements:

(1) *Purpose and implementation of contingency plan.* (i) Each owner or operator must have a contingency plan for the facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of used oil to air, soil, or surface water.

(ii) The provisions of the plan must be carried out immediately whenever

there is a fire, explosion, or release or used oil which could threaten human health or the environment.

(2) *Content of contingency plan.* (i) The contingency plan must describe the actions facility personnel must take to comply with paragraphs (b) (1) and (6) of this section in response to fires, explosions, or any unplanned sudden or non-sudden release of used oil to air, soil, or surface water at the facility.

(ii) If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with part 112 of this chapter, or part 1510 of chapter V of this title, or some other emergency or contingency plan, the owner or operator need only amend that plan to incorporate used oil management provisions that are sufficient to comply with the requirements of this part.

(iii) The plan must describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to paragraph (a)(6) of this section.

(iv) The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see paragraph (b)(5) of this section), and this list must be kept up to date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates.

(v) The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(vi) The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of used oil or fires).

(3) *Copies of contingency plan.* A copy of the contingency plan and all revisions to the plan must be:

(i) Maintained at the facility; and

(ii) Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services.

(4) *Amendment of contingency plan.* The contingency plan must be reviewed, and immediately amended, if necessary, whenever:

(i) Applicable regulations are revised;

(ii) The plan fails in an emergency;

(iii) The facility changes—in its design, construction, operation, maintenance, or other circumstances—in a way that materially increases the potential for fires, explosions, or releases of used oil, or changes the response necessary in an emergency;

(iv) The list of emergency coordinators changes; or

(v) The list of emergency equipment changes.

(5) *Emergency coordinator.* At all times, there must be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and 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 coordinator's responsibilities are more fully spelled out in paragraph (b)(6) of this section. Applicable responsibilities for the emergency coordinator vary, depending on factors such as type and variety of used oil handled by the facility, and type and complexity of the facility.

(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 a real extent of any released materials. He may do this by observation or review of facility records of manifests and, if necessary, by chemical analysts.

(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 of 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:

(*1*) Name and telephone number of reporter;

(*2*) Name and address of facility;

(*3*) Time and type of incident (e.g., release, fire);

(*4*) Name and quantity of material(s) involved, to the extent known;

(*5*) The extent of injuries, if any; and

(*6*) The possible hazards to human health, or the environment, outside the facility.

(v) During an emergency, the 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.

(C) The owner or operator must notify the Regional Administrator, and appropriate State and local authorities that the facility is in compliance with paragraphs (b)(6)(viii)(A) and (B) of this section before operations are resumed in the affected area(s) of the facility.

(ix) The owner or operator must note in the operating record the time, date and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, he must submit a written report on the

incident to the Regional Administrator. The report must include:

(A) Name, address, and telephone number of the owner or operator;

(B) Name, address, and telephone number of the facility;

(C) Date, time, and type of incident (e.g., fire, explosion);

(D) Name and quantity of material(s) involved;

(E) The extent of injuries, if any;

(F) An assessment of actual or potential hazards to human health or the environment, where this is applicable;

(G) Estimated quantity and disposition of recovered material that resulted from the incident.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26426, May 3, 1993]

§ 279.53 Rebuttable presumption for used oil.

(a) To ensure that used oil managed at a processing/re-refining facility is not hazardous waste under the rebuttable presumption of § 279.10(b)(1)(ii), the owner or operator of a used oil processing/re-refining facility must determine whether the total halogen content of used oil managed at the facility is above or below 1,000 ppm.

(b) The owner or operator must make this determination by:

(1) Testing the used oil; or

(2) Applying knowledge of the halogen content of the used oil in light of the materials or processes used.

(c) If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in subpart D of part 261 of this chapter. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from SW–846, Edition III, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in appendix VIII of part 261 of this chapter). EPA Publication SW–846, Third Edition, is available from the Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh PA 15250–7954, (202) 512–1800 (document number 955–001–00000–1).

(1) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling agreement, to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner, or disposed.

(2) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

[57 FR 41612, Sept. 10, 1992, as amended at 59 FR 10560, Mar. 4, 1994]

§ 279.54 Used oil management.

Used oil processor/re-refiners are subject to all applicable Spill Prevention, Control and Countermeasures (40 CFR part 112) in addition to the requirements of this subpart. Used oil processors/re-refiners are also subject to the Underground Storage Tank (40 CFR part 280) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this subpart.

(a) *Management units.* Used oil processors/re-refiners may not store used oil in units other than tanks, containers, or units subject to regulation under part 264 or 265 of this chapter.

(b) *Condition of units.* Containers and aboveground tanks used to store or process used oil at processing and re-refining facilities must be:

(1) In good condition (no severe rusting, apparent structural defects or deterioration); and

(2) Not leaking (no visible leaks).

(c) *Secondary containment for containers.* Containers used to store or process used oil at processing and re-refining facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall; or

(iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(d) *Secondary containment for existing aboveground tanks.* Existing aboveground tanks used to store or process used oil at processing and re-refining facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall except areas where existing portions of the tank meet the ground; or

(iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(e) *Secondary containment for new aboveground tanks.* New aboveground tanks used to store or process used oil at processing and re-refining facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall; or

(iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(f) *Labels.* (1) Containers and aboveground tanks used to store or process used oil at processing and re-refining facilities must be labeled or marked clearly with the words ''Used Oil.''

(2) Fill pipes used to transfer used oil into underground storage tanks at processing and re-refining facilities must be labeled or marked clearly with the words ''Used Oil.''

(g) *Response to releases.* Upon detection of a release of used oil to the environment that is not subject to the requirements of part 280, subpart F of this chapter and which has occurred after the effective date of the recycled used oil management program in effect in the State in which the release is located, an owner/operator must perform the following cleanup steps:

(1) Stop the release;

(2) Contain the released used oil;

(3) Clean up and manage properly the released used oil and other materials; and

(4) If necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

(h) *Closure*—(1) *Aboveground tanks.* Owners and operators who store or process used oil in aboveground tanks must comply with the following requirements:

(i) At closure of a tank system, the owner or operator must remove or decontaminate used oil residues in tanks, contaminated containment system components, contaminated soils, and structures and equipment contaminated with used oil, and manage them as hazardous waste, unless the materials are not hazardous waste under this chapter.

(ii) If the owner or operator demonstrates that not all contaminated soils can be practicably removed or decontaminated as required in paragraph (h)(1)(i) of this section, then the owner or operator must close the tank system and perform post-closure care in accordance with the closure and post-closure care requirements that apply to hazardous waste landfills (§ 265.310 of this chapter).

(2) *Containers.* Owners and operators who store used oil in containers must comply with the following requirements:

(i) At closure, containers holding used oils or residues of used oil must be removed from the site;

(ii) The owner or operator must remove or decontaminate used oil residues, contaminated containment system components, contaminated soils, and structures and equipment contaminated with used oil, and manage them as hazardous waste, unless the materials are not hazardous waste under part 261 of this chapter.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26426, May 3, 1993; 63 FR 24969, May 6, 1998]

§ 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 at 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.

§ 279.56 Tracking.

(a) *Acceptance.* Used oil processors/re-refiners must keep a record of each used oil shipment accepted for processing/re-refining. These records may take the form of a log, invoice, manifest, bill of lading or other shipping documents. Records for each shipment must include the following information:

(1) The name and address of the transporter who delivered the used oil to the processor/re-refiner;

(2) The name and address of the generator or processor/re-refining from whom the used oil was sent for processing/re-refining;

(3) The EPA identification number of the transporter who delivered the used oil to the processor/re-refiner;

(4) The EPA identification number (if applicable) of the generator or processor/re-refiner from whom the used oil was sent for processing/re-refining;

(5) The quantity of used oil accepted; and

(6) The date of acceptance.

(b) *Delivery.* Used oil processor/re-refiners must keep a record of each shipment of used oil that is shipped to a used oil burner, processor/ re-refiner, or

disposal facility. These records may take the form of a log, invoice, manifest, bill of lading or other shipping documents. Records for each shipment must include the following information:

(1) The name and address of the transporter who delivers the used oil to the burner, processor/re-refiner or disposal facility;

(2) The name and address of the burner, processor/re-refiner or disposal facility who will receive the used oil;

(3) The EPA identification number of the transporter who delivers the used oil to the burner, processor/re-refiner or disposal facility;

(4) The EPA identification number of the burner, processor/re-refiner, or disposal facility who will receive the used oil;

(5) The quantity of used oil shipped; and

(6) The date of shipment.

(c) *Record retention*. The records described in paragraphs (a) and (b) of this section must be maintained for at least three years.

§ 279.57 Operating record and reporting.

(a) *Operating record*. (1) The owner or operator must keep a written operating record at the facility.

(2) The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility;

(i) Records and results of used oil analyses performed as described in the analysis plan required under § 279.55; and

(ii) Summary reports and details of all incidents that require implementation of the contingency plan an 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-fining of used oil must manage the residues as specified in § 279.10(e).

Subpart G—Standards for Used Oil Burners Who Burn Off-Specification Used Oil for Energy Recovery

§ 279.60 Applicability.

(a) *General*. The requirements of this subpart apply to used oil burners except as specified in paragraphs (a)(1) and (a)(2) of this section. A used oil burner is a facility where used oil not meeting the specification requirements in § 279.11 is burned for energy recovery in devices identified in § 279.61(a). Facilities burning used oil for energy recovery under the following conditions are not subject to this Subpart:

(1) The used oil is burned by the generator in an on-site space heater under the provisions of § 279.23; or

(2) The used oil is burned by a processor/re-refiner for purposes of processing used oil, which is considered burning incidentally to used oil processing.

(b) *Other applicable provisions*. Used oil burners who conduct the following activities are also subject to the requirements of other applicable provisions of this part as indicated below.

(1) Burners who generate used oil must also comply with subpart C of this part;

(2) Burners who transport used oil must also comply with subpart E of this part;

(3) Except as provided in § 279.61(b), burners who process or re-refine used

oil must also comply with subpart F of this part;

(4) Burners who direct shipments of off-specification used oil from their 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) Burners who dispose of used oil, including the use of used oil as a dust suppressant, must comply with subpart I of this part.

(c) *Specification fuel.* This subpart does not apply to persons burning used oil that meets the used oil fuel specification of § 279.11, provided that the burner complies with the requirements of subpart H of this part.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26426, May 3, 1993]

§ 279.61 Restrictions on burning.

(a) Off-specification used oil fuel may be burned for energy recovery in only the following devices:

(1) Industrial furnaces identified in § 260.10 of this chapter;

(2) Boilers, as defined in § 260.10 of this chapter, that are identified as follows:

(i) Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes;

(ii) Utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale; or

(iii) Used oil-fired space heaters provided that the burner meets the provisions of § 279.23; or

(3) Hazardous waste incinerators subject to regulation under subpart O of parts 264 or 265 of this chapter.

(b)(1) With the following exception, used oil burners may not process used oil unless they also comply with the requirements of subpart F of this part.

(2) Used oil burners may aggregate off-specification used oil with virgin oil or on-specification used oil for purposes of burning, but may not aggregate for purposes of producing on-specification used oil.

§ 279.62 Notification

(a) *Identification numbers.* Used oil burners which have not previously complied with the notification requirements of RCRA section 3010 must comply with these requirements and obtain an EPA identification number.

(b) *Mechanics of notification.* A used oil burner who has not received an EPA identification number may obtain one by notifying the Regional Administrator of their used oil activity by submitting either:

(1) A completed EPA Form 8700–12 (To obtain EPA Form 8700–12 call RCRA/Superfund Hotline at 1–800–424–9346 or 703–920–9810); or

(2) A letter requesting an EPA identification number. Call the RCRA/Superfund Hotline to determine where to send a letter requesting an EPA identification number. The letter should include the following information:

(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.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 33342, June 17, 1993]

§ 279.63 Rebuttable presumption for used oil.

(a) To ensure that used oil managed at a used oil burner facility is not hazardous waste under the rebuttable presumption of § 279.10(b)(1)(ii), a used oil burner must determine whether the total halogen content of used oil managed at the facility is above or below 1,000 ppm.

(b) The used oil burner must determine if the used oil contains above or below 1,000 ppm total halogens by:

(1) Testing the used oil;

(2) Applying knowledge of the halogen content of the used oil in light of the materials or processes used; or

(3) If the used oil has been received from a processor/refiner subject to regulation under subpart F of this part, using information provided by the processor/re-refiner.

(c) If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste/because it has been mixed

with halogenated hazardous waste listed in subpart D of part 261 of this chapter. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from SW–846, Edition III, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in appendix VIII of part 261 of this chapter). EPA Publication SW–846, Third Edition, is available from the Government Printing Office, Superintendent of Documents, PO Box 371954, Pittsburgh, PA 15250–7954. 202–512–1800 (document number 955–001–00000–1).

(1) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling arrangement as described in § 279.24(c), to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner, or disposed.

(2) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(d) *Record retention*. Records of analyses conducted or information used to comply with paragraphs (a), (b), and (c) of this section must be maintained by the burner for at least 3 years.

[57 FR 41612, Sept. 10, 1992, as amended at 59 FR 10560, Mar. 4, 1994]

§ 279.64 Used oil storage.

Used oil burners are subject to all applicable Spill Prevention, Control and Countermeasures (40 CFR part 112) in addition to the requirements of this subpart. Used oil burners are also subject to the Underground Storage Tank (40 CFR part 280) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this subpart.

(a) *Storage units*. Used oil burners may not store used oil in units other than tanks, containers, or units subject to regulation under parts 264 or 265 of this chapter.

(b) *Condition of units*. Containers and aboveground tanks used to store oil at burner facilities must be:

(1) In good condition (no severe rusting, apparent structural defects or deterioration); and

(2) Not leaking (no visible leaks).

(c) *Secondary containment for containers*. Containers used to store used oil at burner facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall.

(2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(d) *Secondary containment for existing aboveground tanks*. Existing aboveground tanks used to store used oil at burner facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall except areas where existing portions of the tank meet the ground; or

(iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(e) *Secondary containment for existing aboveground tanks*. New aboveground tanks used to store used oil at burner facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(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 used oil at burner facilities must be labeled or marked clearly with the words ''Used Oil.''

(2) Fill pipes used to transfer used oil into underground storage tanks at burner facilities must be labeled or marked clearly with the words ''Used Oil.''

(g) *Response to releases.* Upon the detection of a release of used oil to the environment that is not subject to the requirements of part 280, subpart F of this chapter and which has occurred after the effective date of the recycled used oil management program in effect in the State in which the release is located, a burner must perform the following cleanup steps:

(1) Stop the release;

(2) Contain the released used oil;

(3) Clean up and manage properly the released used oil and other materials; and

(4) If necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26426, May 3, 1993; 63 FR 24969, May 6, 1998]

§ 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 incidently burn used oil are not marketers subject to this Subpart;

(2) Persons who direct shipments of on-specification used oil and who are not the first person to claim the oil meets the used oil fuel specifications of § 279.11.

(c) Any person subject to the requirements of this Subpart must also comply with one of the following:

(1) Subpart C of this part—Standards for Used Oil Generators;

(2) Subpart E of this part—Standards for Used Oil Transporters and Transfer Facilities;

(3) Subpart F of this part—Standards for Used Oil Processors and Re-refiners; or

(4) Subpart G of this part—Standards for Used Oil Burners who Burn Off-Specification Used Oil for Energy Recovery.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26426, May 3, 1993]

§ 279.71 Prohibitions.

A used oil fuel marketer may initiate a shipment of off-specification used oil only to a used oil burner who:

(a) Has an EPA identification number; and

(b) Burns the used oil in an industrial furnace or boiler identified in § 279.61(a).

§ 279.72 On-specification used oil fuel.

(a) *Analysis of used oil fuel.* A generator, transporter, processor/re-refiner, or burner may determine that used oil that is to be burned for energy recovery meets the fuel specifications of § 279.11 by performing analyses or obtaining copies of analyses or other information documenting that the used oil fuel meets the specifications.

(b) *Record retention.* A generator, transporter, processor/re-refiner, or burner who first claims that used oil that is to be burned for energy recovery meets the specifications for used oil fuel under § 279.11, must keep copies of analyses of the used oil (or other information used to make the determination) for three years.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26426, May 3, 1993]

§ 279.73 Notification.

(a) *Identification numbers.* A used oil fuel marketer subject to the requirements of this subpart who has not previously complied with the notification requirements of RCRA section 3010 must comply with these requirements and obtain an EPA identification number.

(b) A marketer who has not received an EPA identification number may obtain one by notifying the Regional Administrator of their used oil activity by submitting either:

(1) A completed EPA Form 8700–12; or

(2) A letter requesting an EPA identification number. The letter should include the following information:

(i) Marketer company name;

(ii) Owner of the marketer;

(iii) Mailing address for the marketer;

(iv) Name and telephone number for the marketer point of contact; and

(v) Type of used oil activity (i.e., generator directing shipments of off-specification used oil to a burner).

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 33342, June 17, 1993]

§ 279.74 Tracking.

(a) *Off-specification used oil delivery.* Any used oil marketer who directs a shipment of off-specification used oil to a burner must keep a record of each

shipment of used oil to a used oil burner. These records may take the form of a log, invoice, manifest, bill of lading or other shipping documents. Records for each shipment must include the following information:

(1) The name and address of the transporter who delivers the used oil to the burner;

(2) The name and address of the burner who will receive the used oil;

(3) The EPA identification number of the transporter who delivers the used oil to the burner;

(4) The EPA identification number of the burner;

(5) The quantity of used oil shipped; and

(6) The date of shipment.

(b) *On-specification used oil delivery*. A generator, transporter, processor/re-refiner, or burner who first claims that used oil that is to be burned for energy recovery meets the fuel specifications under § 279.11 must keep a record of each shipment of used oil to an on-specification used oil burner. Records for each shipment must include the following information:

(1) The name and address of the facility receiving the shipment;

(2) The quantity of used oil fuel delivered;

(3) The date of shipment or delivery; and

(4) A cross-reference to the record of used oil analysis or other information used to make the determination that the oil meets the specification as required under § 279.72(a).

(c) *Record retention*. The records described in paragraphs (a) and (b) of this section must be maintained for at least three years.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26426, May 3, 1993; 63 FR 24969, May 6, 1998; 63 FR 37782, July 14, 1998]

§ 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]

PART 280—TECHNICAL STANDARDS AND CORRECTIVE ACTION REQUIREMENTS FOR OWNERS AND OPERATORS OF UNDERGROUND STORAGE TANKS (UST)

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APPENDIX I TO PART 280—NOTIFICATION FOR UNDERGROUND STORAGE TANKS (FORM)
APPENDIX II TO PART 280—LIST OF AGENCIES DESIGNATED TO RECEIVE NOTIFICATIONS
APPENDIX III TO PART 280—STATEMENT FOR SHIPPING TICKETS AND INVOICES

AUTHORITY: 42 U.S.C. 6912, 6991, 6991a, 6991b, 6991c, 6991d, 6991e, 6991f, 6991g, 6991h.

SOURCE: 53 FR 37194, Sept. 23, 1988, unless otherwise noted.

Subpart A—Program Scope and Interim Prohibition

§ 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.

CERCLA means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended.

Compatible 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.

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.

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.

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.

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.

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.

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, commission, 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.

SARA means the Superfund Amendments and Reauthorization Act of 1986.

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, plastic) 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

(2) The Hazardous Liquid Pipeline Safety Act of 1979 (49 U.S.C. App. 2001, *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

NOTE: The following industry codes may be used to comply with paragraph (a)(1) of this section: Underwriters Laboratories Standard 1316, ''Standard for Glass- Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products''; Underwriter's Laboratories of Canada CAN4–S615–M83, ''Standard for Reinforced Plastic Underground Tanks for Petroleum Products''; or American Society of Testing and Materials Standard D4021–86, ''Standard Specification for Glass-Fiber-Reinforced Polyester Underground Petroleum Storage Tanks.''

(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'';

(C) Underwriters Laboratories of Canada CAN4–S603–M85, ''Standard for Steel Underground Tanks for Flammable and Combustible Liquids,'' and CAN4–G03.1–M85, ''Standard for Galvanic Corrosion Protection Systems for Underground Tanks for Flammable and Combustible Liquids,'' and CAN4–S631–M84, ''Isolating Bushings for Steel Underground Tanks Protected with Coatings and Galvanic Systems''; or

(D) National Association of Corrosion Engineers Standard RP–02–85, ''Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems,'' and Underwriters Laboratories Standard 58, ''Standard for Steel Underground Tanks for Flammable and Combustible Liquids.''

(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,'' or the Association for Composite Tanks ACT–100, ''Specification for the Fabrication of FRP Clad Underground Storage Tanks.''

(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

(5) The tank 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 paragraphs (a) (1) through (4) of this section.

(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

(D) Underwriters Laboratories of Canada Standard CAN 4–S633–M81, ''Flexible Underground Hose Connectors.''

(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'';

(B) American Petroleum Institute Publication 1615, ''Installation of Underground Petroleum Storage Systems'';

(C) American Petroleum Institute Publication 1632, ''Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems''; and

(D) National Association of Corrosion Engineers Standard RP–01–69, ''Control of External Corrosion on Submerged Metallic Piping Systems.''

(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

(iii) American National Standards Institute Standard B31.3, ''Petroleum Refinery Piping,'' and American National Standards Institute Standard B31.4 ''Liquid Petroleum Transportation Piping System.''

(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 manufacturers; 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.

[53 FR 37194, Sept. 23, 1988, as amended at 56 FR 38344, Aug. 13, 1991]

§ 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. The second tightness test must be conducted between three (3) and six (6) months following the first operation of the cathodic protection system; or

(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

(D) American Petroleum Institute Publication 1632, ''Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems.''

(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 may 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.

NOTE: The transfer procedures described in National Fire Protection Association Publication 385 may be used to comply with paragraph (a) of this section. Further guidance on spill and overfill prevention appears in American Petroleum Institute Publication 1621, ''Recommended Practice for Bulk Liquid Stock Control at Retail Outlets,'' and National Fire Protection Association Standard 30, ''Flammable and Combustible Liquids Code.''

(b) The owner and operator must report, investigate, and clean up any spills and overfills in accordance with § 280.53.

§ 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)(2) 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.

§ 280.32 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.''

§ 280.33 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.

NOTE: The following codes and standards may be used to comply with paragraph (a) of this section: National Fire Protection Association Standard 30, ''Flammable and Combustible Liquids Code''; American Petroleum Institute Publication 2200, ''Repairing Crude Oil, Liquified Petroleum Gas, and Product Pipelines''; American Petroleum Institute Publication 1631, ''Recommended Practice for the Interior Lining of Existing Steel Underground Storage Tanks''; and 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.''

(b) Repairs to fiberglass-reinforced plastic tanks may be made by the manufacturer's authorized representatives or in accordance with a code of practice developed by a nationally recognized association or an independent testing laboratory.

(c) Metal pipe sections and fittings that have released product as a result of corrosion or other damage must be replaced. Fiberglass pipes and fittings may be repaired in accordance with the manufacturer's specifications.

(d) Repaired tanks and piping must be tightness tested in accordance with § 280.43(c) and § 280.44(b) within 30 days following the date of the completion of the repair except as provided in paragraphs (d) (1) through (3), of this section:

(1) The repaired tank is internally inspected in accordance with a code of practice developed by a nationally recognized association or an independent testing laboratory; or

(2) The repaired portion of the UST system is monitored monthly for releases in accordance with a method specified in § 280.43 (d) through (h); or

(3) Another test method is used that is determined by the implementing agency to be no less protective of human health and the environment than those listed above.

(e) Within 6 months following the repair of any cathodically protected UST system, the cathodic protection system must be tested in accordance with § 280.31 (b) and (c) to ensure that it is operating properly.

(f) UST system owners and operators must maintain records of each repair for the remaining operating life of the UST system that demonstrate compliance with the requirements 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.

Subpart D—Release Detection

§ 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.

Method	Section	Date after which Pd/Pfa must be demonstrated
Manual Tank Gauging.	280.43(b)	December 22, 1990.
Tank Tightness Testing.	280.43(c)	December 22, 1990.
Automatic Tank Gauging.	280.43(d)	December 22, 1990.
Automatic Line Leak Detectors.	280.44(a)	September 22, 1991.
Line Tightness Testing.	280.44(b)	December 22, 1990.

(b) When a release detection method operated in accordance with the performance standards in § 280.43 and § 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:

SCHEDULE FOR PHASE-IN OF RELEASE DETECTION

Year system was installed	Year when release detection is required (by December 22 of the year indicated)				
	1989	1990	1991	1992	1993
Before 1965 or date unknown.	RD	P			
1965–69		P/RD			
1970–74		P	RD		
1975–79		P		RD	
1980–88		P			RD
New tanks (after December 22) immediately upon installation.					

P=Must begin release detection for all pressurized piping as defined in § 280.41(b)(1).

RD=Must begin release detection for tanks and suction piping in accordance with § 280.41(a), § 280.41(b)(2), and § 280.42.

(d) Any existing UST system that cannot apply a method of release detection that complies with the requirements of this subpart must complete the closure procedures in subpart G by the date on which release detection is required for that UST system under paragraph (c) of this section.

[53 FR 37194, Sept. 23, 1988, as amended at 55 FR 17753, Apr. 27, 1990; 55 FR 23738, June 12, 1990; 56 FR 26, Jan. 2, 1991]

§ 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 § 280.21, 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 every 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

(3) Tanks with capacity of 550 gallons or less may use weekly tank gauging (conducted in accordance with § 280.43(b)).

(b) *Piping*. Underground piping that routinely contains regulated substances must be monitored for releases in a manner that meets one of the following requirements:

(1) *Pressurized piping*. Underground piping that conveys regulated substances under pressure must:

(i) Be equipped with an automatic line leak detector conducted in accordance with § 280.44(a); and

(ii) Have an annual line tightness test conducted in accordance with § 280.44(b) or have monthly monitoring conducted in accordance with § 280.44(c).

(2) *Suction piping*. Underground piping that conveys regulated substances under suction must either have a line tightness test conducted at least every 3 years and in accordance with § 280.44(b), or use a monthly monitoring method conduct in accordance with § 280.44(c). No release detection is required for suction piping that is designed and constructed to meet the following standards:

(i) The below-grade piping operates at less than atmospheric pressure;

(ii) The below-grade piping is sloped so that the contents of the pipe will drain back into the storage tank if the suction is released;

(iii) Only one check valve is included in each suction line;

(iv) The check valve is located directly below and as close as practical to the suction pump; and

(v) A method is provided that allows compliance with paragraphs (b)(2) (ii)–(iv) of this section to be readily determined.

§ 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, 1998, 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;

(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:

Nominal tank capacity	Weekly standard (one test)	Monthly standard (average of four tests)
550 gallons or less.	10 gallons	5 gallons.
551–1,000 gallons.	13 gallons	7 gallons.
1,001–2,000 gallons.	26 gallons	13 gallons.

(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

(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 within the excavation zone 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 recordkeeping.

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 piping do not indicate that a leak exists but environmental contamination is the basis for suspecting a release.

(b) *Site check.* 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 nature of the stored substance, the type of initial alarm or cause for suspicion, the type of backfill, the depth of ground water, and other factors appropriate for identifying the presence and source of the release.

(1) If the test results for the excavation zone or the UST site indicate that a release has occurred, owners and operators must begin corrective action in accordance with subpart F;

(2) If the test results for the excavation zone or the UST site do not indicate that a release has occurred, further investigation is not required.

§ 280.53 Reporting and cleanup of spills and overfills.

(a) Owners and operators of UST systems must contain and immediately clean up a spill or overfill and report to the implementing agency within 24 hours, or another reasonable time period specified by the implementing agency, and begin corrective action in accordance with subpart F in the following cases:

(1) Spill or overfill of petroleum that results in a release to the environment that exceeds 25 gallons or another reasonable amount specified by the implementing agency, or that causes a sheen on nearby surface water; and

(2) Spill or overfill of a hazardous substance that results in a release to the environment that equals or exceeds its reportable quantity under CERCLA (40 CFR part 302).

(b) Owners and operators of UST systems must contain and immediately clean up a spill or overfill of petroleum that is less than 25 gallons or another reasonable amount specified by the implementing agency, and a spill or overfill of a hazardous substance that is less than the reportable quantity. If cleanup cannot be accomplished within 24 hours, or another reasonable time period established by the implementing agency, owners and operators must immediately notify the implementing agency.

NOTE: Pursuant to §§302.6 and 355.40, a release of a hazardous substance equal to or in excess of its reportable quantity must also be reported immediately (rather than within 24 hours) to the National Response Center under sections 102 and 103 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 and to appropriate state and local authorities under Title III of the Superfund Amendments and Reauthorization Act of 1986.

Subpart F—Release Response and Corrective Action for UST Systems Containing Petroleum or Hazardous Substances

§ 280.60 General.

Owners and operators of petroleum or hazardous substance UST systems must, in response to a confirmed release from the UST system, comply with the requirements of this subpart except for USTs excluded under §280.10(b) and UST systems subject to RCRA Subtitle C corrective action requirements under section 3004(u) of the Resource Conservation and Recovery Act, as amended.

§ 280.61 Initial response.

Upon confirmation of a release in accordance with §280.52 or after a release from the UST system is identified in any other manner, owners and operators must perform the following initial response actions within 24 hours of a release or within another reasonable period of time determined by the implementing agency:

(a) Report the release to the implementing agency (e.g., by telephone or electronic mail);

(b) Take immediate action to prevent any further release of the regulated substance into the environment; and

(c) Identify and mitigate fire, explosion, and vapor hazards.

§ 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 necessary to prevent further release to the environment;

(2) Visually inspect any aboveground releases or exposed belowground releases and prevent further migration of the released substance into surrounding soils and ground water;

(3) Continue to monitor and mitigate any additional fire and safety hazards posed by vapors or free product that have migrated from the UST excavation zone and entered into subsurface structures (such as sewers or basements);

(4) Remedy hazards posed by contaminated soils that are excavated or exposed as a result of release confirmation, site investigation, abatement, or corrective action activities. If these remedies include treatment or disposal of soils, the owner and operator must comply with applicable State and local requirements;

(5) Measure for the presence of a release where contamination is most likely to be present at the UST site, unless the presence and source of the release have been confirmed in accordance with the site check required by § 280.52(b) or the closure site assessment of § 280.72(a). In selecting sample types, sample locations, and measurement methods, the owner and operator must consider the nature of the stored substance, the type of backfill, depth to ground water and other factors as appropriate for identifying the presence and source of the release; and

(6) Investigate to determine the possible presence of free product, and begin free product removal as soon as practicable and in accordance with § 280.64.

(b) Within 20 days after release confirmation, or within another reasonable period of time determined by the implementing agency, owners and operators must submit a report to the implementing agency summarizing the initial abatement steps taken under paragraph (a) of this section and any resulting information or data.

§ 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 byproducts in compliance with applicable local, State and Federal regulations;

(b) Use abatement of free product migration as a minimum objective for the design of the free product removal system;

(c) Handle any flammable products in a safe and competent manner to prevent fires or explosions; and

(d) Unless directed to do otherwise by the implementing agency, prepare and submit to the implementing agency, within 45 days after confirming a release, a free product removal report that provides at least the following information:

(1) The name of the person(s) responsible for implementing the free product removal measures;

(2) The estimated quantity, type, and thickness of free product observed or measured in wells, boreholes, and excavations;

(3) The type of free product recovery system used;

(4) Whether any discharge will take place on-site or off-site during the recovery operation and where this discharge will be located;

(5) The type of treatment applied to, and the effluent quality expected from, any discharge;

(6) The steps that have been or are being taken to obtain necessary permits for any discharge; and

(7) The disposition of the recovered free product.

§ 280.65 Investigations for soil and ground-water cleanup.

(a) In order to determine the full extent and location of soils contaminated by the release and the presence and concentrations of dissolved product contamination in the ground water, owners and operators must conduct investigations of the release, the release site, and the surrounding area possibly affected by the release if any of the following conditions exist:

(1) There is evidence that groundwater wells have been affected by the release (e.g., as found during release confirmation or previous corrective action measures);

(2) Free product is found to need recovery in compliance with § 280.64;

(3) There is evidence that contaminated soils may be in contact with ground water (e.g., as found during conduct of the initial response measures or investigations required under §§ 280.60 through 280.64); and

(4) The implementing agency requests an investigation, based on the potential effects of contaminated soil or ground water on nearby surface water and ground-water resources.

(b) Owners and operators must submit the information collected under paragraph (a) of this section as soon as practicable or in accordance with a schedule established by the implementing agency.

§ 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;

(4) The potential effects of residual contamination on nearby surface water and ground water;

(5) An exposure assessment; and

(6) Any information assembled in compliance with this subpart.

(c) Upon approval of the corrective action plan or as directed by the implementing agency, owners and operators must implement the plan, including modifications to the plan made by the implementing agency. They must monitor, evaluate, and report the results of implementing the plan in accordance with a schedule and in a format established by the implementing agency.

(d) Owners and operators may, in the interest of minimizing environmental contamination and promoting more effective cleanup, begin cleanup of soil and ground water before the corrective action plan is approved provided that they:

(1) Notify the implementing agency of their intention to begin cleanup;

(2) Comply with any conditions imposed by the implementing agency, including halting cleanup or mitigating adverse consequences from cleanup activities; and

(3) Incorporate these self-initiated cleanup measures in the corrective action plan that is submitted to the implementing agency for approval.

§ 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 and 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; and

(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 F.

§ 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

(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.

[53 FR 43370, Oct. 26, 1988, as amended at 54 FR 5452, Feb. 3, 1989; 55 FR 18567, May 2, 1990; 55 FR 46025, Oct. 31, 1990; 56 FR 66373, Dec. 23, 1991; 59 FR 9607, Feb. 28, 1994]

§ 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.

[53 FR 43370, Oct. 26, 1988, as amended at 54 FR 47081, Nov. 9, 1989; 58 FR 9050, Feb. 18, 1993]

§ 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 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 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 $2 million of annual aggregate assurance by the first-occurring effective date anniversary of any one of the mechanisms combined (other than a financial test or guarantee) to provide assurance.

(g) The amounts of assurance required under this section exclude legal defense costs.

(h) The required per-occurrence and annual aggregate coverage amounts do not in any way limit the liability of the owner or operator.

§ 280.94 Allowable mechanisms and combinations of mechanisms.

(a) Subject to the limitations of paragraphs (b) and (c) of this section,

(1) An owner or operator, including a local government owner or operator, may use any one or combination of the mechanisms listed in §§ 280.95 through 280.103 to demonstrate financial responsibility under this subpart for one or more underground storage tanks, and

(2) A local government owner or operator may use any one or combination of the mechanisms listed in §§ 280.104 through 280.107 to demonstrate financial responsibility under this subpart for one or more underground storage tanks.

(b) An owner or operator may use a guarantee under § 280.96 or surety bond under § 280.98 to establish financial responsibility only if the Attorney(s) General of the state(s) in which the underground storage tanks are located has (have) submitted a written statement to the implementing agency that a guarantee or surety bond executed as described in this section is a legally valid and enforceable obligation in that state.

(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.

[53 FR 43370, Oct. 26, 1988, as amended at 58 FR 9051, Feb. 18, 1993]

§ 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 tangible net worth of at least $10 million.

(3) 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.

(4) The owner or operator, and/or guarantor, must either:

(i) File financial statements annually with the U.S. Securities and Exchange Commission, the Energy Information Administration, or the Rural Electrification Administration; or

(ii) Report annually the firm's tangible net worth to Dun and Bradstreet, and Dun and Bradstreet must have assigned the firm a financial strength rating of 4A or 5A.

(5) 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: ''suddent accidential releases'' and/or ''nonsudden accidential 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 approved 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 145:

EPA Regulations	*Amount*
Closure (§§ 264.143 and 265.143)	$_____
Post-Closure Care (§§ 264.145 and 265.145)	$_____
Liability Coverage (§§ 264.147 and 265.147)	$_____
Corrective Action (§§ 264.101(b))	$_____

EPA Regulations	*Amount*
Plugging and Abandonment (§ 144.63)	$_____
Closure	$_____
Post-Closure Care	$_____
Liabilitly Coverage	$_____
Corrective Action	$_____
Plugging and Abandonment	$_____
Total	$_____

This [insert: ''owner or operator,'' or ''guarantor''] has not received an adverse opinion, a disclaimer of opinion, or a ''going 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

1.	Amount of annual UST aggregate coverage being assured by a financial test, and/or guarantee	$_____
2.	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	$_____
3.	Sum of lines 1 and 2	$_____
4.	Total tangible assets	$_____
5.	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]	$_____
6.	Tangible net worth [subtract line 5 from line 4]	$_____
		Yes No
7.	Is line 6 at least $10 million?	___ __
8.	Is line 6 at least 10 times line 3?	___ __
9.	Have financial statements for the latest fiscal year been filed with the Securities and Exchange Commission?	___ __
10.	Have financial statements for the latest fiscal year been filed with the Energy Information Administration?	___ __
11.	Have financial statements for the lastest fiscal year been filed with the Rural Electrification Administration?	___ __
12.	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.]	___ __

Alternative II

1.	Amount of annual UST aggregate coverage being assured by a test, and/or guarantee	$_____
2.	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	$_____
3.	Sum of lines 1 and 2	$_____
4.	Total tangible assets	$_____
5.	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]	$_____
6.	Tangible net worth [subtract line 5 from line 4]	$_____
7.	Total assets in the U.S. [required only if less than 90 percent of assets are located in the U.S.]	$_____
		Yes No
8.	Is line 6 at least $10 million?	$___ __
9.	Is line 6 at least 6 times line 3?	___ __
10.	Are at least 90 percent of assets located in the U.S.? [If ''No,'' complete line 11.]	___ __
11.	Is line 7 at least 6 times line 3?	___ __
	[Fill in either lines 12–15 or lines 16–18:]	
12.	Current assets	$_____
13.	Current liabilities	_____
14.	Net working capital [subtract line 13 from line 12]	_____
		Yes No
15.	Is line 14 at least 6 times line 3?	___ __
16.	Current bond rating of most recent bond issue	___ __
17.	Name of rating service	___ __

Alternative II—Continued

18.	Date of maturity of bond	____ __
19.	Have financial statements for the latest fiscal year been filed with the SEC, the Energy Information Administration, or the Rural Electrification Administration?	____ __

[If ''No,'' please attach a report from an independent certified public accountant certifying that there are no material differences between the data as reported in lines 4–18 above and the financial statements for the latest fiscal year.]

[For both Alternative I and Alternative II complete the certification with this statement.]

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR part 280.95(d) as such regulations were constituted on the date shown immediately below.

[Signature]

[Name]

[Title]

[Date]

(e) If an owner or operator using the test to provide financial assurance finds that he or she no longer meets the requirements of the financial test based on the year-end financial statements, the owner or operator must obtain alternative coverage within 150 days of the end of the year for which financial statements have been prepared.

(f) The Director of the implementing agency may require reports of financial condition at any time from the owner or operator, and/or guarantor. If the Director finds, on the basis of such reports or other information, that the owner or operator, and/or guarantor, no longer meets the financial test requirements of § 280.95(b) or (c) and (d), the owner or operator must obtain alternate coverage within 30 days after notification of such a finding.

(g) If the owner or operator fails to obtain alternate assurance within 150 days of finding that he or she 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 he or she no longer meets the requirements of the financial test, the owner or operator must notify the Director of such failure within 10 days.

§ 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 be:

(1) A firm that (i) possesses a controlling interest in the owner or operator; (ii) possesses a controlling interest in a firm described under paragraph (a)(1)(i) of this section; or, (iii) is controlled through stock ownership by a common parent firm that possesses a controlling interest in the owner or operator; 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].

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 upon written instructions from the [Director] 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''] accidential 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 of such failure, by certified mail, notice to [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 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, loaded 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 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 280.93.

(9) Guarantor expressly waives notice of acceptance of this guarantee by [the implementing agency], by any or all third parties, or by [owner or operator].

I hereby certify that the wording of this guarantee is identical to the wording specified in 40 CFR 280.96(c) 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:

_____

(d) An owner or operator who uses a guarantee to satisfy the requirements of § 280.93 must establish a standby trust fund when the guarantee is obtained. Under the terms of the guarantee, all amounts paid by the guarantor under the guarantee will be deposited directly into the standby trust fund in accordance with instructions from the Director of the implementing agency under § 280.108. This standby trust fund must meet the requirements specified in § 280.103.

§ 280.97 Insurance and risk retention group coverage.

(a) An owner or operator may satisfy the requirements of § 290.93 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 with subsections (a) through (e) of this Paragraph 2 are hereby amended to conform with subsections (a) through (e);

a. Bankruptcy or insolvency of the insured shall not relieve the [''Insurer'' 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 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)(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]

[Title of person signing], Authorized Representative of [name of Insurer or Risk Retention Group]

[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 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. List the coverage guaranteed by the bond: ''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 underground storage tank''].

Penal sums of bond:
Per occurrence $ _____
Annual aggregate $ _____
Surety's bond number: _____

Know All Persons by These Presents, that we, the Principal and Surety(ies), hereto 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 cosureties, 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 bond is used to provide such financial assurance;

Now, therefore, the conditions of the obligation are such that if the Principal shall faithfully [''take corrective action, in accordance with 40 CFR part 280, subpart F and the Director of the state implementing agency's instructions for,'' and/or ''compensate injured third parties for bodily injury and property damage caused by'' either ''sudden'' or ''nonsudden'' or ''sudden and nonsudden''] accidental releases arising from operating the tank(s) indentified above, or if the Principal shall provide alternate financial assurance, as specified in 40 CFR part 280, subpart H, within 120 days after the date the notice of cancellation is received by the Principal from the Surety(ies), then this obligation shall be null and void; otherwise it is to remain in full force and effect.

Such 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 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.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above.

Upon notification by [the Director of the implementing agency] that the Principal has failed to [''take corrective action, in accordance with 40 CFR part 280, subpart F and the Director's instructions,'' and/or ''compensate injured third parties''] as guaranteed by this bond, the Surety(ies) shall either perform [''corrective action in accordance with 40 CFR part 280 and the Director's instructions,'' and/or ''third-party liability compensation''] or place funds in an amount up to the annual aggregate penal sum into the standby trust fund as directed by [the Regional Administrator or the Director] under 40 CFR 280.108.

Upon notification by [the Director] that the Principal has failed to provide alternate financial assurance within 60 days after the date the notice of cancellation is received by the Principal from the Surety(ies) and that [the Director] has determined or suspects that a release has occurred, the Surety(ies) shall place funds in an amount not exceeding the annual aggregate penal sum into the standby trust fund as directed by [the Director] under 40 CFR 280.108.

The Surety(ies) hereby waive(s) notification of amendments to applicable laws, statutes, rules, and regulations and agrees that

no such amendment shall in any way alleviate its (their) obligation on this bond.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the annual aggregate to the penal sum shown on the face of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said annual aggregate penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal, provided, however, that cancellation shall not occur during the 120 days beginning on 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] 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 persuant 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 ''nonsudden 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;

(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.

This letter of credit is effective as of [date] and shall expire on [date], but such expiration date shall be automatically extended for a period of [at least the length of the original term] on [expiration date] and on each successive expiration date, unless, at least 120 days before the curent expiration date, we notify [owner or operator] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event that [owner or operator] is so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by [owner or operator], as shown on the signed return receipt.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of [owner or operator] in accordance with your instructions.

We certify that the wording of this letter of credit is identical to the wording specified in 40 CFR 280.99(b) as such regulations were constituted on the date shown immediately below.

[Signature(s) and title(s) of official(s) of issuing institution]

[Date]

This credit is subject to [insert ''the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce,'' or ''the Uniform Commercial Code'']].

(c) An owner or operator who uses a letter of credit to satisfy the requirements of § 280.93 must also establish a standby trust fund when the letter of credit is acquired. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Director of the implementing agency will be deposited by the issuing institution 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.

(d) The letter of credit must be irrevocable with a term specified by the issuing institution. The letter of credit must provide that credit be automatically renewed for the same term as the original term, unless, at least 120 days before the current expiration date, the issuing institution notifies the owner or operator by certified mail of its decision not to renew the letter of credit. Under the terms of the letter of credit, the 120 days will begin on the date when the owner or operator receives the notice, as evidenced by the return receipt.

[53 FR 37194, Sept. 23, 1988, as amended at 59 FR 29960, June 10, 1994]

§ 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.

[53 FR 43370, Oct. 26, 1988; 53 FR 51274, Dec. 21, 1988]

§ 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 used in combination with other mechanism(s) that provide the remaining required coverage.

(d) If the value of the trust fund is greater than the required amount of coverage, the owner or operator may submit a written request to the Director of the implementing agency for release of the excess.

(e) If other financial assurance as specified in this subpart is substituted for all or part of the trust fund, the owner or operator may submit a written request to the Director of the implementing agency for release of the excess.

(f) Within 60 days after receiving a request from the owner or operator for release of funds as specified in paragraph (d) or (e) of this section, the Director of the implementing agency will instruct the trustee to release to the owner or operator such funds as the Director specifies in writing.

§ 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 corporate trustee], [insert ''Incorporated in the state of _____'' or ''a national bank''], the ''Trustee.''

Whereas, the United States Environmental Protection Agency, ''EPA,'' an agency of the United States Government, has established certain regulations applicable to the Grantor, requiring that an owner or operator of 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] instruction 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.

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 herein.

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 inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the federal or state government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses

All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Advice of Counsel

The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any questions arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 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 Grantor.

Section 12. Successor Trustee

The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in writing sent to the Grantor and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 13. Instructions to the Trustee

All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached 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, requests, and instructions. All orders, requests, 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 contrary, that no event constituting a change or a termination of the authority of any person

to act on behalf of the Grantor or [the director] 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 instrument 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.

Section 15. Irrevocability and Termination

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]

Attest:
[Signature of Trustee]
[Name of the Trustee]
[Title]
[Seal]
[Signature of Witness]
[Name of the Witness]
[Title]
[Seal]

(2) The standby trust agreement, or trust agreement must be accompanied by a formal certification of acknowledgement similar to the following. State requirements may differ on the proper content of this acknowledgment.

State of _____

County of _____

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; and that she/he signed her/his name thereto by like order.

[Signature of Notary Public]
[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.

[53 FR 43370, Oct. 26, 1988; 53 FR 51274, Dec. 21, 1988]

§ 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.

(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]

Issue date	Maturity date	Outstanding amount	Bond rating	Rating agency
				[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.

[Date] _____

[Signature] _____

[Name] _____

[Title] _____

(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]

Issue date	Maturity date	Outstanding amount	Bond rating	Rating agency
				[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 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] _____

(f) The Director of the implementing agency may require reports of financial condition at any time from the local government owner or operator, and/or local government guarantor. If the Director finds, on the basis of such reports or other information, that the local government owner or operator, and/or guarantor, no longer meets the local government bond rating test requirements of § 280.104, the local government owner or operator must obtain alternative coverage within 30 days after notification of such a finding.

(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 financial test are located. 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 by the tank identification number provided in the notification submitted pursuant to 40 CFR Part 280.22 or the corresponding state requirements.]

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 9.156_____
f. Multiply by 3.270 _____

14. Funds Balance to Total Expenses

a. Total Funds (from 5)_____
b. Total Expenses (from 2c)_____
c. Divide 14a by 14b_____
d. Subtract .866 _____
e. Divide by 6.409 _____
f. Multiply by 3.270 _____

15. Total Funds to Population _____

a. Total Funds (from 5) _____
b. Population (from 6)_____
c. Divide 15a by 15b _____
d. Subtract 270 _____
e. Divide by 4,548 _____
f. Multiply by 1.866 _____

16. Add 7f + 8f + 9f + 10f + 11f + 12f + 13f + 14f + 15f + 4.937_____

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 alternative 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'' 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) 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.

(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.

(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(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:

If the guarantor is a local government, 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 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 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'' 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) 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.

(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.

(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.

(9) 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'' 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) 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 part CFR 280.105, 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'' 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) 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 280.93.

(9) 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:

[58 FR 9056, Feb. 18, 1993]

§ 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:

$$\frac{TF - CF}{Y}$$

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 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 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 ''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 mechanisms(s) that provide the remaining coverage,'' or ''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 ''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): _____

[If fund balance is incrementally funded as specified in § 280.107(c), insert:

Amount added to fund in the most recently completed fiscal year: _____

Number of years remaining in the pay-in period: _____]

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.

[53 FR 43370, Oct. 26, 1988. Redesignated at 58 FR 9051, Feb. 18, 1993]

§ 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. 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]

§ 280.111 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 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]

§ 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 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.

[53 FR 43370, Oct. 26, 1988. Redesignated at 58 FR 9051, Feb. 18, 1993]

§ 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 proceeding under Title 11 (Bankruptcy), U.S. Code, naming an owner or operator as debtor, the owner or operator must notify the Director of the implementing agency by certified mail of such commencement and submit the appropriate forms listed in § 280.111(b) documenting current financial responsibility.

(b) Within 10 days after commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming a guarantor providing financial assurance as debtor, such guarantor must notify the owner or operator by certified mail of such commencement as required under the terms of the guarantee specified in § 280.96.

(c) Within 10 days after commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming a local government owner or operator as debtor, the local government owner or operator must notify the Director of the implementing agency by certified mail of such commencement and submit the appropriate forms listed in § 280.111(b) documenting current financial responsibility.

(d) Within 10 days after commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming a guarantor providing a local government financial assurance as debtor, such guarantor must notify the local government owner or operator by certified mail of such commencement as required under the terms of the guarantee specified in § 280.106.

(e) An owner or operator who obtains financial assurance by a mechanism other than the financial test of self-insurance will be deemed to be without the required financial assurance in the event of a bankruptcy or incapacity of its provider of financial assurance, or a suspension or revocation of the authority of the provider of financial assurance to issue a guarantee, insurance policy, risk retention group coverage policy, surety bond, letter of credit, or state-required mechanism. The owner or operator must obtain alternate financial assurance as specified in this subpart within 30 days after receiving notice of such an event. If the owner or operator does not obtain alternate coverage within 30 days after such notification, he must notify the Director of the implementing agency.

(f) Within 30 days after receipt of notification that a state fund or other state assurance has become incapable of paying for assured corrective action or third-party compensation costs, the owner or operator must obtain alternate financial assurance.

[58 FR 9053, Feb. 18, 1993]

§ 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]

Subpart I—Lender Liability

SOURCE: 60 FR 46711, Sept. 7, 1995, unless otherwise noted.

§ 280.200 Definitions.

(a) *UST technical standards*, as used in this subpart, refers to the UST preventative and operating requirements 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, surety bonds and guarantees of obligations, title held pursuant to a lease financing transaction in which the lessor does not select initially the leased property (hereinafter ''lease financing transaction''), and legal or equitable title obtained pursuant to foreclosure. Evidence of such interests also includes assignments, pledges, or other rights to or other forms of encumbrance against property that are held primarily to protect a security interest. A person is not required to hold title or a security interest in order to maintain indicia of ownership.

(d) *A holder* is a person who, upon the effective date of this regulation or in the future, maintains indicia of ownership (as defined in § 280.200(c)) primarily to protect a security interest (as defined in § 280.200(f)(1)) in a petroleum UST or UST system or facility or property on which a petroleum UST or UST system is located. A holder includes the initial holder (such as a loan originator); any subsequent holder (such as a successor-in-interest or subsequent purchaser of the security interest on the secondary market); a guarantor of an obligation, surety, or any other person who holds ownership indicia primarily to protect a security interest; or a receiver or other person who acts on behalf or for the benefit of a holder.

(e) *A borrower, debtor, or obligor* is a person whose UST or UST system or facility or property on which the UST or UST system is located is encumbered by a security interest. These terms may be used interchangeably.

(f) *Primarily to protect a security interest* means that the holder's indicia of ownership are held primarily for the purpose of securing payment or performance of an 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 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.

(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 Participation in management.

The term ''participating in the management of an UST or UST system'' means that, subsequent to the effective date of this subpart, December 6, 1995, the holder is engaging in decisionmaking 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 decisionmaking 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, 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, plus any unpaid interest, rent, or penalties (whether arising before or after foreclosure). The value of the security interest also includes all reasonable and necessary costs, fees, or other charges incurred by the holder incident to work out, foreclosure, retention, preserving, protecting, and preparing, prior to sale, the UST or UST system or facility or property on which the UST or UST system is located, re-lease, pursuant to a lease financing transaction (whether by a new lease financing transaction or substitution of the lessee), of an UST or UST system or facility or property on which the UST or UST system is located, or other disposition. The value of the security interest also includes 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. 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, including all material terms of the transaction, from a ready, willing, and able purchaser who demonstrates to the holder's satisfaction the ability to perform. For purposes of this provision, 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 or to gain access to the UST or UST system, the six-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.

(3) Actions that are not participation in management post-foreclosure. A holder is not considered to be participating in the management of an UST or UST system or facility or property on which the UST or UST system is located when undertaking actions under 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.

§ 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 overfill 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

FORM APPROVED
OMB NO. 2050-0068
APPROVAL EXPIRES 9-30-91

EPA estimates public reporting burden for this form to average 30 minutes per response, including time for reviewing instructions, gathering and maintaining the data needed, and completing and reviewing the form. Send comments regarding this burden estimate to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., S.W., Washington, D.C. 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503, marked "Attention: Desk Officer for EPA."

STATE USE ONLY

I.D. Number

Date Received

GENERAL INFORMATION

Notification is required by Federal law for all underground tanks that have been used to store regulated substances since January 1, 1974, that are in the ground as of May 8, 1986, or that are brought into use after May 8, 1986. The information requested is required by Section 9002 of the Resource Conservation and Recovery Act, (RCRA), as amended.

The primary purpose of this notification program is to locate and evaluate underground tanks that store or have stored petroleum or hazardous substances. It is expected that the information you provide will be based on reasonably available records, or, in the absence of such records, your knowledge, belief, or recollection.

Who Must Notify? Section 9002 of RCRA, as amended, requires that, unless exempted, owners of underground tanks that store regulated substances must notify designated State or local agencies of the existence of their tanks. Owner means—

(a) in the case of an underground storage tank in use on November 8, 1984, or brought into use after that date, any person who owns an underground storage tank used for the storage, use, or dispensing of regulated substances, and

(b) in the case of any underground storage tank in use before November 8, 1984, but no longer in use on that date, any person who owned such tank immediately before the discontinuation of its use.

What Tanks Are Included? Underground storage tank is defined as any one or combination of tanks that (1) is used to contain an accumulation of "regulated substances," and (2) whose volume (including connected underground piping) is 10% or more beneath the ground. Some examples are underground tanks storing: **1.** gasoline, used oil, or diesel fuel, and **2.** industrial solvents, pesticides, herbicides or fumigants.

What Tanks Are Excluded? Tanks removed from the ground are not subject to notification. Other tanks excluded from notification are:
1. farm or residential tanks of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes;
2. tanks used for storing heating oil for consumptive use on the premises where stored;
3. septic tanks;
4. pipeline facilities (including gathering lines) regulated under the Natural Gas Pipeline Safety Act of 1968, or the Hazardous Liquid Pipeline Safety Act of 1979, or which is an intrastate pipeline facility regulated under State laws;
5. surface impoundments, pits, ponds, or lagoons;
6. storm water or waste water collection systems;
7. flow-through process tanks;
8. liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;
9. storage tanks 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.

What Substances Are Covered? The notification requirements apply to underground storage tanks that contain regulated substances. This includes any substance defined as hazardous in section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), with the exception of those substances regulated as hazardous waste under Subtitle C of RCRA. It also includes petroleum, e.g., crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

Where To Notify? Completed notification forms should be sent to the address given at the top of this page.

When To Notify? 1. Owners of underground storage tanks in use or that have been taken out of operation after January 1, 1974, but still in the ground, must notify by May 8, 1986. **2.** Owners who bring underground storage tanks into use after May 8, 1986, must notify within 30 days of bringing the tanks into use.

Penalties: Any owner who knowingly fails to notify or submits false information shall be subject to a civil penalty not to exceed $10,000 for each tank for which notification is not given or for which false information is submitted.

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 5 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 ***(Mark all that apply ☒)***

☐ Current ☐ State or Local Gov't ☐ Private or Corporate

☐ Former ☐ Federal Gov't (GSA facility I.D. no. _____) ☐ Ownership uncertain

II. LOCATION OF TANK(S)

(If same as Section 1, mark box here ☐)

Facility Name or Company Site Identifier, as applicable

Street Address or State Road, as applicable

County

City (nearest) State ZIP Code

Indicate number of tanks at this location ☐

Mark box here if tank(s) are located on land within an Indian reservation or on other Indian trust lands ☐

III. CONTACT PERSON AT TANK LOCATION

Name (If same as Section I, mark box here ☐) 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 VI.)

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

CONTINUE ON REVERSE SIDE

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Owner Name (from Section I) _____ Location (from Section II) _____ Page No. ____ of ____ Pages

VI. DESCRIPTION OF UNDERGROUND STORAGE TANKS *(Complete for each tank at this location.)*

Tank Identification No. (e.g., ABC-123), or Arbitrarily Assigned Sequential Number (e.g., 1,2,3...)	Tank No.	Tank No.	Tank No.	Tank No.	Tank No.
1. Status of Tank *(Mark all that apply ☒)*					
Currently in Use	☐	☐	☐	☐	☐
Temporarily Out of Use	☐	☐	☐	☐	☐
Permanently Out of Use	☐	☐	☐	☐	☐
Brought into Use after 5/8/86	☐	☐	☐	☐	☐
2. Estimated Age (Years)					
3. Estimated Total Capacity (Gallons)					
4. Material of Construction *(Mark one ☒)*					
Steel	☐	☐	☐	☐	☐
Concrete	☐	☐	☐	☐	☐
Fiberglass Reinforced Plastic	☐	☐	☐	☐	☐
Unknown	☐	☐	☐	☐	☐
Other, Please Specify	_____	_____	_____	_____	_____
5. Internal Protection *(Mark all that apply ☒)*					
Cathodic Protection	☐	☐	☐	☐	☐
Interior Lining (e.g., epoxy resins)	☐	☐	☐	☐	☐
None	☐	☐	☐	☐	☐
Unknown	☐	☐	☐	☐	☐
Other, Please Specify	_____	_____	_____	_____	_____
6. External Protection *(Mark all that apply ☒)*					
Cathodic Protection	☐	☐	☐	☐	☐
Painted (e.g., asphaltic)	☐	☐	☐	☐	☐
Fiberglass Reinforced Plastic Coated	☐	☐	☐	☐	☐
None	☐	☐	☐	☐	☐
Unknown	☐	☐	☐	☐	☐
Other, Please Specify	_____	_____	_____	_____	_____
7. Piping *(Mark all that apply ☒)*					
Bare Steel	☐	☐	☐	☐	☐
Galvanized Steel	☐	☐	☐	☐	☐
Fiberglass Reinforced Plastic	☐	☐	☐	☐	☐
Cathodically Protected	☐	☐	☐	☐	☐
Unknown	☐	☐	☐	☐	☐
Other, Please Specify	_____	_____	_____	_____	_____
8. Substance Currently or Last Stored in Greatest Quantity by Volume *(Mark all that apply ☒)*					
a. Empty	☐	☐	☐	☐	☐
b. Petroleum					
Diesel	☐	☐	☐	☐	☐
Kerosene	☐	☐	☐	☐	☐
Gasoline (including alcohol blends)	☐	☐	☐	☐	☐
Used Oil	☐	☐	☐	☐	☐
Other, Please Specify	_____	_____	_____	_____	_____
c. Hazardous Substance	☐	☐	☐	☐	☐
Please Indicate Name of Principal CERCLA Substance	_____	_____	_____	_____	_____
OR					
Chemical Abstract Service (CAS) No.	_____	_____	_____	_____	_____
Mark box ☒ if tank stores a mixture of substances	☐	☐	☐	☐	☐
d. Unknown	☐	☐	☐	☐	☐
9. Additional Information (for tanks permanently taken out of service)					
a. Estimated date last used (mo/yr)	/	/	/	/	/
b. Estimated quantity of substance remaining (gal.)	_____	_____	_____	_____	_____
c. Mark box ☒ if tank was filled with inert material (e.g., sand, concrete)	☐	☐	☐	☐	☐

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Owner Name (from Section I) _____ Location (from Section II) _____ Page No. ____ of ____ Pages

VII. CERTIFICATION OF COMPLIANCE (COMPLETE FOR ALL NEW TANKS AT THIS LOCATION)

10. Installation (mark all that apply):

- ☐ The installer has been certified by the tank and piping manufacturers.
- ☐ The installer has been certified or licensed by the implementing agency.
- ☐ The installation has been inspected and certified by a registered professional engineer.
- ☐ The installation has been inspected and approved by the implementing agency.
- ☐ All work listed on the manufacturer's installation checklists has been completed.
- ☐ Another method was used as allowed by the implementing agency. Please specify: _____

11. Release Detection (mark all that apply):

- ☐ Manual tank gauging.
- ☐ Tank tightness testing with inventory controls.
- ☐ Automatic tank gauging.
- ☐ Vapor monitoring.
- ☐ Ground-water monitoring.
- ☐ Interstitial monitoring within a secondary barrier.
- ☐ Interstitial monitoring within secondary containment.
- ☐ Automatic line leak detectors.
- ☐ Line tightness testing.
- ☐ Another method allowed by the implementing agency. Please specify: _____

12. Corrosion Protection (if applicable)

- ☐ As specified for coated steel tanks with cathodic protection.
- ☐ As specified for coated steel piping with cathodic protection.
- ☐ Another method allowed by the implementing agency. Please specify: _____

13. I have financial responsibility in accordance with Subpart I. Please specify:

Method: _____

Insurer: _____

Policy Number: _____

14. OATH: I certify that the information concerning installation provided in Item 10 is true to the best of my belief and knowledge.

Installer: _____ Name _____ Date

_____ Position

_____ Company

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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 Congressman W.L. Dickinson Drive, Montgomery, Alabama 36130, 205/271–7823

Alaska (EPA Form), Department of Environmental Conservation, Box 0, Juneau, Alaska 99811–1800, 970/465–2653

American Samoa (EPA Form), Executive Secretary, Environmental Quality Commission, Office of the Governor, American Samoan Government, Pago Pago, American Samoa 96799; Attention: UST Notification

Arizona (EPA Form), Attention: UST Coordinator, Arizona Department of Environmental Quality, Environmental Health Services, 2005 N. Central, Phoenix, Arizona 85004

Arkansas (EPA Form), Arkansas Department of Pollution Control and Ecology, P.O. Box 9583, Little Rock, Arkansas 72219, 501/562–7444

California (State Form), Executive Director, State Water Resources Control Board, P.O. Box 100, Sacramento, California 95801, 916/445–1533

Colorado (EPA Form), Section Chief, Colorado Department of Health, Waste Management Division, Underground Tank Program, 4210 East 11th Avenue, Denver, Colorado 80220, 303/320–8333

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, 302/726–5409

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, 904/487–4398

Georgia (EPA Form), Georgia Department of Natural Resources, Environmental Protection Division, Underground Storage Tank Program, 3420 Norman Berry Drive, 7th Floor, Hapeville, Georgia 30354, 404/656–7404

Guam (State Form), Administrator, Guam Environmental Protection Agency, P.O. Box 2999, Agana, Guam 96910, Overseas Operator (Commercial call 646–8863)

Hawaii (EPA Form), Administrator, Hazardous Waste Program, 645 Halekauwila Street, Honolulu, Hawaii 96813, 808/548–2270

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, 208/334–4251

Illinois (EPA Form), Underground Storage Tank Coordinator, Division of Fire Prevention, Office of State Fire Marshal, 3150 Executive Park Drive, Springfield, Illinois 62703–4599

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, 913/296–1594

Kentucky (State Form), Department of Environmental Protection, Hazardous Waste Branch, Fort Boone Plaza, Building #2, 18 Reilly Road, Frankfort, Kentucky 40601, 501/564–6716

Louisiana (State Form), Secretary, Louisiana Department of Environmental Quality, P.O. Box 44066, Baton Rouge, Louisiana 70804, 501/342–1265

Maine (State Form), Attention: Underground Tanks Program, Bureau of Oil and Hazardous Material Control, 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, 7150 Harris Drive, Lansing, Michigan 48913

Minnesota (State Form), Underground Storage Tank Program, Division of Solid and Hazardous Wastes, Minnesota Pollution Control Agency, 520 West Lafayette Road, St. Paul, Minnesota 55155

Mississippi (State Form), Department of Natural Resources, Bureau of Pollution Control, Underground Storage Tank Section, P.O. Box 10385, Jackson, Mississippi 39209, 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 Science, Cogswell Bldg., Room B–201, 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, 800/992–0900, Ext. 4670, 702/885–4670

New Hampshire (EPA Form), NH Dept. of Environmental Services, Water Supply and Pollution Control Division, Hazen Drive, P.O. Box 95, Concord, New Hampshire 03301, Attention: UST Registration

New Jersey (State Form), Underground Storage Tank Coordinator, Department of Environmental Protection, Division of Water Resources (CN–029), Trenton, New Jersey 08625, 609/292–0424

New Mexico (EPA Form), New Mexico Environmental Improvement Division, Groundwater/Hazardous Waste Bureau, P.O. Box 968, Santa Fe, New Mexico 37504, 505/827–2933

New York (EPA Form), Bulk Storage Section, Division of Water, Department of Environmental Conservation, 50 Wolf Road, Room 326, Albany, New York 12233–0001, 518/457–4351

North Carolina (EPA Form), Division of Environmental Management, Ground-Water Operations Branch, Department of Natural Resources and Community Development, P.O. Box 27687, Raleigh, North Carolina 27611, 919/733–3221

North Dakota (State Form), Division of Hazardous Management and Special Studies, North Dakota Department of Health, Box 5520, Bismarck, North Dakota 58502–5520

Northern Mariana Islands (EPA Form), Chief, Division of Environmental Quality, P.O. Box 1304, Commonwealth of Northern Mariana Islands, Saipan, CM 96950, Cable Address: Gov. NMI Saipan, Overseas Operator: 6984

Ohio (State Form), State Fire Marshal's Office, Department of Commerce, 8895 E. Main Street, Reynoldsburg, Ohio 43068, State Hotline: 800/282–1927

Oklahoma (EPA Form), Underground Storage Tank Program, Oklahoma Corporation Comm., Jim Thorpe Building, Oklahoma City, Oklahoma 73105

Oregon (State Form), Underground Storage Tank Program, Hazardous and Solid Waste Division, Department of Environmental Quality, 811 S.W. Sixth Avenue, Portland, Oregon 98204, 503/229–5788

Pennsylvania (EPA Form), PA Department of Environmental Resources, Bureau of Water Quality Management, Ground Water Unit, 9th Floor Fulton Building, P.O. Box 2063, Harrisburg, Pennsylvania 17120

Puerto Rico (EPA Form), Director, Water Quality Control Area, Environmental Quality Board, Commonwealth of Puerto Rico, Santurce, Puerto Rico, 809/725–0717

Rhode Island (EPA Form), UST Registration, Department of Environmental Management, 83 Park Street, Providence, Rhode Island 02903, 401/277–2234

South Carolina (State Form), Ground-Water Protection Division, South Carolina Department of Health and Environmental Control, 2600 Bull Street, Columbia, South Carolina 29201, 803/758–5213

South Dakota (EPA Form), Office of Water Quality, Department of Water and Natural Resources, Joe Foss Building, Pierre, South Dakota 57501,

Tennessee (EPA Form), Tennessee Department of Health and Environment, Division of Superfund Underground Storage Tank Section, 150 Ninth Avenue, North, Nashville, Tennessee 37219–5404, 615/741–0690

Texas (EPA Form), Underground Storage Tank Program, Texas Water Commission, P.O. Box 13087, Austin, Texas 78711

Utah (EPA Form), Division of Envirormental Health, P.O. Box 45500, Salt Lake City, Utah 84145–0500

Vermont (State Form), Underground Storage Tank Program, Vermont AEC/Waste Management Division, State Office Building, Montpelier, Vermont 05602, 802/828–3395

Virginia (EPA Form), Virginia Water Control Board, P.O. Box 11143, Richmond, Virginia 23230–1143, 804/257–6685

Virgin Islands (EPA Form), 205(J) Coordinator, Division of Natural Resources Management, 14 F Building 111, Watergut Homes, Christianstead, St. Croix, Virgin Islands 00820

Washington (State Form), Underground Storage Tank Notification, Solid and Hazardous Waste Program, Department of Ecology, M/S PV–11, Olympia, Washington 98504–8711, 206/459–6316

West Virginia (EPA Form), Attention: UST Notification, Solid and Hazardous Waste, Ground Water Branch, West Virginia Department of Natural Resources, 1201 Greenbriar Street, Charleston, West Virginia 25311

Wisconsin (State Form), Bureau of Petroleum Inspection, P.O. Box 7969, Madison, Wisconsin 53707, 608/266–7605

Wyoming (EPA Form), Water Quality Division, Department of Environmental Quality, Herschler Building, 4th Floor West, 122 West 25th Street, Cheyenne, Wyoming 82002, 307/777–7781.

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. 98–616)) 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.

PART 281—APPROVAL OF STATE UNDERGROUND STORAGE TANK PROGRAMS

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AUTHORITY: 42 U.S.C. 6912, 6991 (c), (d), (e), (g).

SOURCE: 53 FR 37241, Sept. 23, 1988, unless otherwise noted.

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.

(2) Provisions for adequate enforcement of compliance with the above program elements.

(b) *Final approval.* The state must demonstrate that its requirements

under each state program element for existing and new UST systems are no less stringent than the corresponding federal requirements as set forth in subpart C of this part, except as provided in paragraph (c) of this section. The state must also demonstrate that it has a program that provides adequate enforcement of compliance with these requirements.

(c) *Interim approval.* (1) The Administrator may approve state programs with requirements less stringent than the federal requirements for a period of 1 to 3 years from September 23, 1988. Such interim approval may be granted only if state regulatory and/or legislative change is required in order for the state program to be no less stringent than the federal requirements and standards under part 280 for one or more of the following program elements: Release detection at existing UST systems; release reporting and investigation; and out-of-service or closed UST systems.

(2) A state program may receive interim approval if it:

(i) Has requirements for three elements:

(A) Release Detection;

(B) Release Reporting, Investigation, and Confirmation; and

(C) Out-of-Service UST Systems and Closure; and

(ii) Has requirements that are no less stringent than the corresponding federal requirements for five elements:

(A) New UST System Design, Construction, Installation and Notification;

(B) Upgrading Existing UST Systems;

(C) General Operating Requirements;

(D) Release Response and Corrective Action; and

(E) Financial Responsibility for UST systems containing petroleum; and

(iii) Provides for adequate enforcement of compliance with these requirements.

(3) A state with a program that has received interim approval must receive final approval of an amended program containing program elements that are no less stringent than the corresponding federal program elements under subpart C in accordance with the following schedule:

(i) If only state regulatory action is required, the state must submit an amended program to EPA for approval before September 23, 1989.

(ii) If only state legislative action is required, the state must submit an amended program to EPA for approval before September 23, 1990.

(iii) If both state legislative and regulatory action are required, the state must submit an amended program to EPA for approval before September 23, 1991.

(d) States with programs approved under this part are authorized to administer the state program in lieu of the federal program and will have primary enforcement responsibility with respect to the requirements of the approved program. EPA retains authority to take enforcement action in approved states as necessary and will notify the designated lead state agency of any such intended action.

§ 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 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 existing 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 state application in accordance with § 281.51.

§ 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-Stringent

§ 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 an inspector to immediately determine the integrity of the piping system.

(e) *Requirements for hazardous substance UST systems.* All UST systems storing hazardous substances must meet the following:

(1) All existing hazardous substance UST systems must comply with all the requirements for petroleum UST systems in paragraphs (c) and (d) of this section and after December 22, 1998, they must comply with the following paragraph (e)(2) of this section.

(2) All new hazardous substance UST systems must use interstitial monitoring within secondary containment of the tanks and the attached underground piping that conveys the regulated substance stored in the tank, unless the owner and operator can demonstrate to the state (or the state otherwise determines) that another method will detect a release of the regulated substance as effectively as other methods allowed under the state program for petroleum UST systems and that effective corrective action technology is available for the hazardous substance being stored that can be used to protect human health and the environment.

§ 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 280.91.

(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: 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.

[53 FR 43382, Oct. 26, 1988; 53 FR 51274, Dec. 21, 1988; 54 FR 38788, Sept. 20, 1989, as amended at 55 FR 46025, Oct. 31, 1990]

§ 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:

(1) Mirrors the security interest exemption provided for in 40 CFR part 280, subpart I; or

(2) Achieves the same effect as provided by the following key criteria:

(i) A holder, meaning a person who maintains indicia of ownership primarily to protect a security interest in a petroleum UST or UST system or facility or property on which a petroleum UST or UST system is located, who does not participate in the management of the UST or UST system as defined under § 280.210 of this chapter, and who does not engage in petroleum production, refining, and marketing as defined under § 280.200(b) of this chapter is not:

(A) 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 requirements of 40 CFR part 280; or

(B) An ''operator'' of a petroleum UST or UST system for purposes of compliance with the requirements of 40 CFR part 280, provided the holder is not in control of or does not have responsibility for the daily operation of the UST or UST system.

(ii) [Reserved]

(b) [Reserved]

[60 FR 46715, Sept. 7, 1995]

Subpart D—Adequate Enforcement of Compliance

§ 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.

(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 that 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 for each instance of violation, 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. Any information obtained from a state and subject to a claim of confidentiality will be treated in accordance with federal regulations in 40 CFR part 2; and

(2) Any information that is submitted to the state without a claim of confidentiality. EPA may make this information available to the public without further notice.

(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.

Subpart E—Approval Procedures

§ 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 amendmant 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

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282.103–282.105 [Reserved]
APPENDIX A TO PART 282—STATE REQUIREMENTS INCORPORATED BY REFERENCE IN PART 282 OF THE CODE OF FEDERAL REGULATIONS

AUTHORITY: 42 U.S.C. 6912, 6991c, 6991d, and 6991e.

SOURCE: 58 FR 58625, Nov. 2, 1993, unless otherwise noted.

Subpart A—General Provisions

§ 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. 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 Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC. 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): JFK Federal Building, Boston, MA 02203–2211.

(2) Region 2 (New Jersey, New York, Puerto Rico, Virgin Islands): Federal Office Building, 26 Federal Plaza, New York, NY 10278.

(3) Region 3 (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia): 841 Chestnut St. Building, Philadelphia, PA 19107.

(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.

(10) Region 10 (Alaska, Idaho, Oregon, Washington): 1200 Sixth Avenue, Seattle, WA 98101.

(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 Adminstrative Code Section 335–6–15–.45, insofar as it requires underground storage tank regulation fees.

(E) Alabama Department of Environmental Management Adminstrative 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*.

(5) *Memorandum of Agreement*. The Memorandum of Agreement between EPA, Region 4 and the Alabama Department of Environmental Management, signed by the EPA, Regional Administrator on August 2, 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*.

[62 FR 3614, Jan. 24, 1997]

§§ 282.51–282.52 [Reserved]

§ 282.53 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*.

(A) Arkansas Statutory Requirements Applicable to the Underground Storage Tank Program, 1995.

(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

(*2*) *Arkansas Code Annotated, Title 8, Chapter 4, Subchapter 1—General Provisions:*

(*i*) § 8–4–103 Criminal, Civil, and Administrative Penalties

(*3*) *Arkansas Code Annotated, Title 8, Chapter 7, Subchapter 8—Regulated Substance Storage Tanks:*

(*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 (c) 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: Written Examination
Section 9: Approval of Comparable Licensing Programs
Section 10: Reciprocity
Section 11: Denial of Licenses
Section 12: Renewal of Licenses
Section 13: Duties and Obligations
Section 14: Department Approval of Training and Continuing Education
Section 15: Complaints
Section 16: Investigations; Enforcement; Penalties
Section 17: Department Actions Against Licenses.

(*iv*) Chapter 6: Licensing of Tank Testers (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: Company 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, 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*.

(A) Connecticut Statutory Requirements Applicable to the Underground Storage Tank Program, 1996.

(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:

(*1*) *Legal Authorities for Compliance Monitoring and Inspections*. Connecticut General Statutes, Sections 22a–6(a)(5), 22a–336, 54–33a.

(*2*) *Legal Authorities for Enforcement Response*. Connecticut 22a–430(d), 22a–431, 22a–432, 22a–433, 22a–435, 22a–438, 52–471, 52–473, 52–474, 52–480 and 52–481.

(*3*) *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.

(B) Regulatory provisions include: *Public Participation in the State Enforcement Process*. (R.C.S.A.) Sections 22a–3a–6–(k).

(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*.

[61 FR 41509, Aug. 9, 1996]

§§ 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, 4244 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*.

(A) Georgia Statutory Requirements Applicable to the Underground Storage Tank Program, 1995.

(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,
12–13–16—Hearings and review,
12–13–17—Judgement by superior court,
12–13–19—Violations; imposition of penalties,
12–13–20—Action in emergencies, and
12–13–22—Representation by Attorney General

(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*.

[61 FR 4225, Feb. 5, 1996]

§§ 282.61–282.64 [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.

(d) Iowa has final approval for the following elements submitted to EPA in Iowa's program application for final approval and approved by EPA on March 7, 1995. Copies may be obtained from the Underground Storage Tank Program, Iowa Department of Natural Resources, Wallace State Office Building, 900 East Grand, Des Moines, Iowa, 50319.

(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.

(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 Iowa, Chapter 455B, Sections 113, 114 and 115 insofar as they apply to certified laboratories; 479 insofar as it applies to account dispersion; Chapter 455G, Sections 1–20 insofar as they apply to the comprehensive petroleum underground storage tank fund.

(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.

(2) *Statement of legal authority.* (i) ''Attorney General's Statement for Final Approval'', signed by the Attorney General of Iowa on December 22, 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.*

(ii) Letter from the Attorney General of Iowa to EPA, dated December 22, 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.*

(3) *Demonstration of procedures for adequate enforcement.* The ''Demonstration of Procedures for Adequate Enforcement'' submitted as part of the original application in March of 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 in March 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 7 and the Iowa Department of Natural Resources, signed by the EPA Regional Administrator on June 22, 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.*

[60 FR 12632, Mar. 7, 1995]

§ 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.

(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) Kansas Statutes Annotated, Chapter 65, Article 34, Sections 105(2) insofar as it applies to aboveground storage tanks, (8) insofar as it applies to tank tightness tester qualifications, (11) & (12) insofar as it applies to licensing tank installers and fees for these licenses, (13) insofar as it applies to aboveground storage tanks; 106 insofar as it applies to aboveground storage tanks; 110 insofar as it applies licensing of tank installers and contractors; 111 insofar as it applies suspension of licenses; 112 insofar as it applies to agreements between secretary and local governments; 114 & 114a insofar as it applies to the storage tank release trust fund; 116 & 117 insofar as it applies to the storage tank release fund; 118 insofar as it applies to corrective action for aboveground storage tanks; 119–125 insofar as it applies to the storage tank release fund; 126 & 127 insofar as it applies to the third party liability insurance plan; 128 insofar as it applies to the storage tank fee fund; 129 & 130 insofar as it applies to the aboveground petroleum storage tank release trust fund.

(B) Kansas Department of Health and Environment Permanent Administrative Regulations, Chapter 28, Article 44, Section 18 insofar as it applies to registration of non-regulated underground storage tanks; 20–22 insofar as they require underground storage tank installers, tank tightness testers and contractors to be licensed; 23(b)(5) insofar as it applies to heating oil tanks.

(2) *Statement of legal authority.* (i) ''Attorney General's Statement for Final Approval'', signed by the Attorney General of Kansas on August 23, 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.*

(ii) Letter from the Attorney General of Kansas to EPA, August 23, 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.*

(3) *Demonstration of procedures for adequate enforcement.* The ''Demonstration of Procedures for Adequate Enforcement'' submitted as part of the original application in September, 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 September 1993, 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 7 and the Kansas Department of Health and Environment, signed by the EPA Regional Administrator on April 29, 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.*

[59 FR 49212, Sept. 27, 1994]

§ 282.67 [Reserved]

§ 282.68 Louisiana State-Administered Program.

(a) The State of Louisiana 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 Louisiana Department of Environmental Quality, was approved by EPA pursuant to 42 U.S.C. 6991c and part 281 of this Chapter. EPA approved the Louisiana program on July 24, 1992 and it was effective on September 4, 1992.

(b) Louisiana 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, 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.*

(A) Louisiana Statutory Requirements Applicable to the Underground Storage Tank Program, 1995.

(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
§ 2172 Policy and Purpose
§ 2275 Demand by Secretary; Remedial Action

(B) The regulatory provisions include:

(1) Louisiana Environmental Regulatory Code, Part XI: Underground Storage Tanks, Chapter 15—Enforcement:

§ 1501 Inspection and Entry
§ 1503 Failure to Comply
§ 1505 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*.

(5) *Memorandum of Agreement*. The Memorandum of Agreement between EPA Region 6 and the Louisiana Department of Environmental Quality, signed by the EPA Regional Administrator on May 14, 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 1212, Jan. 18, 1996]

§ 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 section 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*.

(A) Maine Statutory Requirements Applicable to the Underground Storage Tank Program, 1995.

(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) The statutory provisions include: Title 38 Maine Revised Statutes Annotated, Sections 561 through 570.

(B) The regulatory provisions include: Maine Regulations for Registration, Installation, Operation and Closure of Underground Oil Storage Facilities Chapter 691 Section 1 through 13.

(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 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 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 November 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 December 20, 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 I and the Maine Department of Environmental Protection, signed by the EPA Regional Administrator on November, 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 6555, Feb. 21, 1996]

§ 282.70 [Reserved]

§ 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:

(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 9.04 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]

§§ 282.72–282.73 [Reserved]

§ 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:

(1) Mississippi Code of 1972, Title 49, Sections 49–17–401 through 49–17–435, Underground Storage Tank Act of 1988, as amended.

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:

(1) Mississippi Code of 1972, Title 49, Sections 49–17–401 through 49–17–433, Underground Storage Tank Act of 1988.

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.*

[62 FR 28366, May 23, 1997]

§§ 282.75–282.77 [Reserved]

§ 282.78 Nevada State-Administered Program.

(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 section 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*.

(A) Nevada Statutory Requirements Applicable to the Underground Storage Tank Program, 1992.

(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.

(A) The statutory provisions include: Nevada Revised Statutes 459 Underground Storage Tank Program (1992) Sections 459.826, 459.830, 459.832, 459.834, 459.844, 459.846, 459.848, 459.850, 459.852, 459.854, and 459.856.

(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: none.

(2) *Statement of legal authority*. (i) ''Attorney General's Statement of Final Approval,'' signed by the Attorney General of Nevada on December 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*.

(ii) Letter from the Attorney General of Nevada to EPA, dated December 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*.

(3) *Demonstration of procedures for adequate enforcement*. The ''Demonstration of Procedures for Adequate Enforcement'' submitted as part of the original application of October 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*.

(4) *Program description*. The program description and any other material submitted as part of the original application in October 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*.

(5) *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 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 38500, July 17, 1998]

§ 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 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 Hampshire Department of Environmental Services, was approved by EPA pursuant to 42 U.S.C. 6991c and part 281 of this Chapter. EPA's approval was effective on July 19, 1991.

(b) New Hampshire has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise 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 statutory and regulatory provisions.

(c) To retain program approval, New Hampshire must revise its approved program to adopt 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 Hampshire 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 section and notice of any change will be published 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 approved by EPA on June 19, 1991, becoming effective on July 19, 1991. Copies may be obtained from the Underground Storage Tank Program, New Hampshire Department of Environmental Services, 6 Hazen Drive, Concord, NH 03302–0095.

(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 Hampshire Statutory Requirements Applicable to the Underground Storage Tank Program, 1993.

(B) New Hampshire Regulatory Requirements Applicable to the Underground Storage Tank Program, 1993.

(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: 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.

(B) The regulatory provisions include: New Hampshire Code of Administrative Rules (1990) Part Env. C–602.08; Part He–P 1905.

(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:

(1) New Mexico Statutes 1978 Annotated, Chapter 74, Environmental Improvement.

(i) Article 4: Hazardous Wastes.

74–4–4.2 Permits; Issuance; Denial; Modification; Suspension; Revocation
74–4–4.3 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

(v) Part V: Post-Hearing Procedures.

§ 501 Filing the Transcript
§ 502 Proposed Findings, Conclusions and Orders
§ 503 Recommended Decision
§ 504 Final Order by Director
§ 505 Judicial Review

(vi) Part VI: Miscellaneous Provisions.

§ 601 Liberal Construction
§ 602 Severability
§ 603 Supersession of Prior Rules
§ 604 Savings Clause

(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) New Mexico Statutes 1978 Annotated, Chapter 74, Environmental Improvement.

(*1*) 74–4–4.4 Underground Storage Tanks; Registration; Installer Certification; Fees [Insofar as it applies to individuals other than UST owners and operators.]

(B) State of New Mexico Environmental Improvement Board Underground Storage Tank Regulations.

(*1*) Part I: General Provisions.

§ 103 Applicability [Insofar as it does not exclude UST systems with *de minimis* concentrations of regulated substances; emergency spill or overflow containment UST systems expeditiously emptied after use; UST systems that are part of emergency generator systems at nuclear power generation facilities; airport hydrant fuel distribution systems; and UST systems with field-constructed tanks; and does not defer emergency power generator UST systems.]

(*2*) Part XIV: Certification of Tank Installers [Insofar as it applies to individuals other than UST owners and operators.]

§ 1400 Purpose
§ 1401 Legal Authority
§ 1402 Definitions
§ 1403 Applicability
§ 1404 General Requirements
§ 1405 Contractor Certification
§ 1406 Individual Certification
§ 1407 Experience Requirements
§ 1408 Written Examination
§ 1409 On-Site Examination

§ 1410 Approval of Comparable Certification Programs
§ 1411 Denial of Certificates
§ 1412 Renewal of Certificates
§ 1413 Installer Duties and Obligations
§ 1414 Division Approval of Training and Continuing Education
§ 1415 Complaints
§ 1416 Investigations, Enforcement, Penalties
§ 1417 Division Actions Against Certificates

(2) *Statement of legal authority.* (i) ''Attorney General's Statement for Final Approval'', signed 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]

§ 282.82 [Reserved]

§ 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 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*.

(A) North Carolina Statutory Requirements Applicable to the Underground Storage Tank Program, 1997.

(B) North Carolina Regulatory Requirements Applicable to the Underground Storage Tank Program, 1997 and 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:

(*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

(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.)

(*2*) 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

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)

(*2*) 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

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*. (i) ''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*.

(ii) Letter from the Attorney General of North Carolina to EPA, August 11, 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*.

(iii) Letter from the Attorney General of North Carolina to EPA, September 24, 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*.

(3) *Demonstration of procedures for adequate enforcement*. The ''Demonstration

of Procedures for Adequate Enforcement'' submitted as part of the original application on December 19, 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*.

(4) *Program Description*. The program description and any other material submitted as part of the original application on December 19, 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 4 and the North Carolina Department of Environment and Natural Resources, Division of Waste Management, UST Section, signed by the EPA Regional Administrator on July 29, 1999, 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*.

[66 FR 32568, June 15, 2001]

§ 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*.

(A) North Dakota Statutory Requirements Applicable to the Underground Storage Tank Program, 1995.

(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 Code, Chapter 33–24–08, Sections 33–24–08–56, 33–24–08–57 and 33–24–08–98.

(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*.

[60 FR 32470, June 22, 1995]

§ 282.85 [Reserved]

§ 282.86 Oklahoma State-Administered Program.

(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. 6991d and 6991e, 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 underground storage tank program under subtitle I of RCRA, 42 U.S.C. 6991 *et seq*.

(A) Oklahoma Statutory Requirements Applicable to the Underground Storage Tank Program, 1995.

(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:

(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

(2) Oklahoma Annotated Code, Chapter 27: Petroleum Storage Tank Release Indemnity Program, Subchapter 9: Administrative Provisions

§ 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—Fees—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]

§§ 282.87–282.88 [Reserved]

§ 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:

(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) 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 registration and closure requirements for tanks containing heating oil consumed on the premises where stored; and farm or residential tanks less than or equal to 1,100 gallons containing motor fuels for non-consumptive use.

(B) Rhode Island Regulations for Underground Storage Facilities Used for Petroleum Products and Hazardous Materials, Section 8, Facility Registration and Notification, and Section 15, Closure; 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.

(2) *Statement of legal authority.* (i) ''Attorney General's Statement for Final Approval and appendixes'' signed by the Attorney General of Rhode Island on 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.*

(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.*

(3) *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.*

(4) *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*.

(5) *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*.

[61 FR 6320, Feb. 20, 1996]

§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*.

(A) South Dakota Statutory Requirements Applicable to the Underground Storage Tank Program, 1995.

(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 75, 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*.

(5) *Memorandum of Agreement*. The Memorandum of Agreement between EPA Region VIII and the South Dakota Department of Environment and Natural Resources, signed by the EPA Regional Administrator on February 23, 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*.

[60 FR 14336, Mar. 16, 1995]

§ 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*.

(A) Tennessee Statutory Requirements Applicable to the Underground Storage Tank Program, 1998.

(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:

(*1*) 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:

(*1*) 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:

(*1*) Tennessee Code Annotated, Title 68, Chapter 215:

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 provides for rule development for the assessment and collections of fees.]
Section 68–215–109 [Insofar as it allows for levying and collection of annual fees to operate the underground storage tank fund and develop rules.]
Section 68–215–110 [Insofar as it establishes a petroleum underground storage tank fund.]
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*) Tennessee Department of Environment and Conservation, Underground Storage Tank Program Rules, Chapter 1200–1–15:

Section .09 [Insofar as it refers to guidelines and procedures for administering the Tennessee petroleum underground storage tank fund.]
Section .10 [Insofar as it refers to annual fees, the use, collection and failure to pay fees.]
Section .11 [Insofar as it requires underground storage tank fees, use, collection and failure to pay penalties, and fee notices.]

(2) *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*.

(3) *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*.

(4) *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*.

(5) *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*.

[64 FR 28929, May 28, 1999]

§ 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.

(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) 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:

(*1*) Texas Water Code, Title 2, Subtitle D, Chapter 26—State Water Administration.

§ 26.013 Research, Investigations
§ 26.014 Power to Enter Property
§ 26.015 Power to Examine Records
§ 26.016 Enforcement Proceedings
§ 26.017 Cooperation
§ 26.019 Orders
§ 26.020 Hearing Powers
§ 26.021 Delegation of Hearing Powers
§ 26.022 Notice of Hearings; Continuance
§ 26.042 Monitoring and Reporting
§ 26.121 Unauthorized Discharges Prohibited
§ 26.122 Civil Penalty
§ 26.123 Enforcement by Commission
§ 26.124 Enforcement by Others
§ 26.125 Venue and Procedure
§ 26.126 Disposition of Civil Penalties
§ 26.136 Administrative Penalty
§ 26.212 Criminal Offense
§ 26.213 Criminal Penalty
§ 26.268 Penalties
§ 26.353 Commission Orders
§ 26.354 Emergency Orders
§ 26.356 Inspections, Monitoring, and Testing

(B) The regulatory provisions include:

(*1*) 31 Texas Administrative Code, Chapter 334—Underground and Aboveground Storage Tanks.

Subchapter A: General Provisions

§ 334.11 Enforcement
§ 334.14 Memorandum of Understanding between the Attorney General of Texas and the Texas Natural Resource Conservation Commission

(*2*) 31 Texas Administrative Code, Chapter 337—Enforcement.

(*i*) Subchapter A: Enforcement Generally.

§ 337.1 Enforcement Orders
§ 337.2 Hearings on Violations
§ 337.3 Legal Proceedings
§ 337.4 Complaint File
§ 337.5 Confidentiality of Enforcement Information
§ 337.6 Force Majeure

(*ii*) Subchapter B: Enforcement Hearings.

§ 337.31 Purpose
§ 337.32 Remedies
§ 337.33 Definitions
§ 337.34 Substantial Noncompliance and Emergency Conditions
§ 337.35 Emergencies
§ 337.36 Preliminary Enforcement Report
§ 337.37 Notice
§ 337.38 Answer
§ 337.39 Commission Action
§ 337.40 Appeals of Administrative Penalties

(*iii*) Subchapter C: Water Rights Enforcement.

§ 337.51 Show-Cause Enforcement Procedures
§ 337.52 Notice
§ 337.53 Enforcement of Commission Orders
§ 337.54 Enforcement

(*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 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.

(*1*) 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 (a) applies to aboveground storage tanks.)
§ 26.349 Reporting of Releases and Corrective Action (Insofar as (a) 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.

(*1*) Subchapter A: General Provisions.

(*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 Certification 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
§ 334.465 Procedures for Revocation or Suspension of Certificate of Registration
§ 334.466 Reinstatement of a Certificate of Registration

(2) *Statement of legal authority*. (i) ''Attorney General's Statement for Final Approval'', signed by the Attorney General of Texas on January 11, 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 Texas to EPA, January 11, 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 April 28, 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 April 28, 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 Texas Natural Resource Conservation Commission, signed by the EPA Regional Administrator on January 13, 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*.

[61 FR 1224, Jan. 18, 1996]

§ 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. 6991c, 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. 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) 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.*

(A) Utah Statutory Requirements Applicable to the Underground Storage Tank Program, 1995.

(B) Utah 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: Utah Code Unannotated (1994), Title 19, Chapter 6, Sections 19–6–112; 19–6–113; 19–6–115; 19–6–402(8), (11), and (23); 19–6–404(2)(f), (j), and (m); 19–6–405.5; 19–6–407(2) and (3); 19–6–410(3) as it pertains to penalties, (4)(b), and (5); 19–6–416; 19–6–418; 19–6–420(2), (4)(a), (5)(b), and (9)(b); 19–6–424.5; 19–6–425; 19–6–426(5) and (6); and 19–6–427.

(B) The regulatory provisions include: Administrative Rules of the State of Utah, Utah Administrative Code (1993), Sections R311–208–1; R311–208–2; R311–208–3; R311–208–4; R311–208–5; and R311–208–6.

(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: Utah Code Unannotated (1994), Title 19, Chapter 6, Sections 19–6–402 (3), (4), (9), (14), (15), (20), and (26); 19–6–403(1)(a) (i) and (iv); 19–6–404(2)(c); 19–6–405.5; 19–6–408; 19–6–409; 19–6–410; 19–6–411; 19–6–412; 19–6–414; 19–6–415; 19–6–416; 19–6–417; 19–6–419; 19–6–420 (1), (3)(a), (3)(b), (5)(c), and (6); 19–6–421; 19–6–422; 19–6–423; 19–6–424; and 19–6–426 (1) through (4) and (7).

(B) The regulatory provisions include: Administrative Rules of the State of Utah, Utah Administrative Code (1993), Sections R311–200–1 (2), (5), (8), (10), (13), (20), (29), (42) through (49), (53), and (54); R311–201–2; R311–201–1; R311–201–3; R311–201–4; R311–201–5; R311–201–6; R311–201–7; R311–201–8; R311–201–9; R311–201–10; R311–201–11; R311–203–2; R311–206–2 (b) and (c); R311–206–4; R311–206–5 (b), (c), (d), and the words ''compliance or'' in (a); R311–206–6; R311–207–1; R311–207–2; R311–207–3; R311–207–4; R311–207–5; R311–207–6; R311–207–7; R311–207–8; R311–207–9; R311–209–1; R311–209–2; R311–209–3; and R311–209–4.

(2) *Statement of legal authority.* (i) ''Attorney General's Statement for Final Approval'', signed by the Attorney General of Utah on 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.*

(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.*

(3) *Demonstration of procedures for adequate enforcement.* The ''Demonstration of Procedures for Adequate Enforcement'' submitted as part of the complete application in September 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 September 1993, 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 Utah Department of Environmental Quality, signed by the EPA Regional Administrator on March 1, 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*.

[60 FR 52344, Oct. 6, 1995]

§ 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. 6991d and 6991e, as well as under other statutory and regulatory provisions.

(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. 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*.

(A) Vermont Statutory Requirements Applicable to the Underground Storage Tank Program, 1995.

(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.

(2) *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]

§§ 282.96–282.101 [Reserved]

§ 282.102 Puerto Rico State-Administered Program.

(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*.

(A) Puerto Rico Statutory Requirements Applicable to the Underground Storage Tank Program, 1997.

(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:

(*1*) Public Policy Environmental Act of 1970, Act Number 9, June 18, 1970, as amended, 12 Laws of Puerto Rico Annotated (L.P.R.A.) § 1121 *et seq*.

(*i*) Section 1131 Functions and duties [Insofar as paragraphs (10), (12), (13), (19), (22), (23), (25), (26), (29), and (30) set forth enforcement authorities.]

(*ii*) Section 1134 Hearings, orders and judicial proceedings

(*iii*) Section 1136 Penalty

(*iv*) Section 1139 Civil actions

(*v*) Section 1142 Powers [Insofar as (b)(5) sets forth enforcement authorities.]

(*2*) Puerto Rico Environmental Emergency Fund Act, 12 L.P.R.A. § 1269 *et seq*.

(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.

(*2*) Part X—General Provisions.

(*i*) Rule 1005 Right of Entry

(*ii*) 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:

(*1*) Puerto Rico Civil Procedure Rules of 1979, 32 L.P.R.A. Appendix III

(*2*) Rules of Administrative Procedure for Hearings in Environmental Quality Board, Regulation Number 3672, promulgated on October 19, 1988.

(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:

(*1*) Public Policy Environmental Act of 1970, Act Number 9, June 18, 1970, as amended, 12 Laws of Puerto Rico Annotated (L.P.R.A.) §§ 1121 *et seq*.

(*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—Fee Payments; Rule 1206—Exemptions from Fees; Rule 1207—Fees for Revision of Permanent Closure Plans; Rule 1208—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

(a) 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 6 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 8 Availability to public of records, reports, or information obtained under chapter.
Section 10 Rules and regulations.

(b) The regulatory provisions include Alabama Department of Environmental Management, Administrative Code, Division 6, Water Quality Program, Volume II, revised effective: June 1, 1994, Chapter 335–6–15: Technical Standards, Corrective Action Requirements and Financial Responsibility for Owners and Operators of Underground Storage Tanks.

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 .14 General Release Detection Systems for all UST Systems.
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.
Section .27 Free Product Removal.
Section .28 Secondary Investigation Requirements.
Section .29 Corrective Action Plan.
Section .30 Corrective Action Limits for Soils.
Section .31 Corrective Action Limits for Ground Water.
Section .32 Alternative Corrective Action Limits.
Section .33 Risk Assessment.
Section .34 Public Participation.
Section .35 Analytical Requirements.
Section .36 Temporary Closure.
Section .37 Permanent Closure.
Section .38 Site Closure or Change-in-Service Assessments.
Section .39 Applicability to Previously Closed UST Systems.
Section .40 Closure Records.
Section .41 Alternate or Temporary Drinking Water Source.
Section .42 Availability to Public of Records, Reports or information.
Section .43 Access to Records.
Section .44 Entry and Inspection of Facilities.

Section .46 Financial Responsibility for Petroleum UST Owners and Operators.
Section .48 Severability.

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
b. Chapter 2: Regulations Promulgated Under Acts 172 and 173 of 1989 and Act 65 of the Third Extraordinary Session of 1989 for Administration of the State Regulated Storage Tank Program
   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 28, 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.
(i) Public participation.

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.
(f) Financial test of self-insurance.
(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.
(y) Appendix II to 40 CFR Part 280—List of Agencies Designed to Receive Notification.
(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:
Section 391–3–15–.01—General provisions. Amended.
Section 391–3–15–.02—Definitions, UST Exclusions, and UST Deferrals. Amended.
Section 391–3–15–.03—Confidentiality of Information. Amended.
Section 391–3–15–.04—Interim Prohibition for Deferred UST Systems. Amended.
Section 391–3–15–.05—UST Systems: Design, Construction, Installation and Notification. Amended.
Section 391–3–15–.06—General Operating Requirements. Amended.
Section 391–3–15–.07—Release Detection. Amended.
Section 391–3–15–.08—Release Reporting, Investigation, and Confirmation. Amended.
Section 391–3–15–.09—Release Response and Corrective Action for UST Systems Containing Petroleum. Amended.
Section 391–3–15–.10—Release Response and Corrective Action for UST Systems Containing Hazardous Substances. Amended.
Section 391–3–15–.11—Out-of-Service UST Systems and Closure. Amended.
Section 391–3–15–.12—UST Systems Containing Petroleum; Financial Responsibility Requirements. Amended.
Section 391–3–15–.13—Georgia Underground Storage Tank (GUST) Trust Fund. Amended.
Section 391–3–15–.14—Enforcement.
Section 391–3–15–.15—Variances.

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
Section 479—Storage tank management fee, except for the 2nd and 3rd sentences

(b) The regulatory provisions include Iowa Administrative Code, 1993, Rule 567, Environmental Protection Commission:
Chapter 131.1—Definitions
Chapter 131.2—Report of Hazardous Conditions
Chapter 133.1—Scope
Chapter 133.2—Definitions
Chapter 133.3—Documentation of contamination and source
Chapter 133.4—Response to contamination
Chapter 133.5—Report to commission
Chapter 135.1—Authority, purpose and applicability
Chapter 135.2—Definitions
Chapter 135.3—UST systems—design, construction, installation, and notification, except for 135.3(4)a, 3(4)b and 3(4)c
Chapter 135.4—General operating requirements
Chapter 135.5—Release detection
Chapter 135.6—Release reporting, investigation, and confirmation
Chapter 135.7—Release response and corrective action for UST systems containing petroleum or hazardous substances
Chapter 135.8—Site cleanup report
Chapter 135.9—Out-of-service UST systems and closure
Chapter 135.10—Laboratory analytical methods for petroleum contamination of soil and groundwater
Chapter 135.11—Evaluation of ability to pay
Chapter 136.1—Applicability
Chapter 136.2—Compliance dates
Chapter 136.3—Definition of terms

Chapter 136.4—Amount and scope of required financial responsibility
Chapter 136.5—Allowable mechanisms and combinations of mechanisms
Chapter 136.6—Financial test of self-insurance
Chapter 136.7—Guarantee
Chapter 136.8—Insurance and risk retention group coverage
Chapter 136.9—Surety bond
Chapter 136.10—Letter of credit
Chapter 136.11—Trust fund
Chapter 136.12—Standby trust fund
Chapter 136.13—Local government bond rating test
Chapter 136.14—Local government financial test
Chapter 136.15—Local government guarantee
Chapter 136.16—Local government fund
Chapter 136.17—Substitution of financial assurance mechanisms by owner or operator
Chapter 136.18—Cancellation or nonrenewal by a provider of financial assurance
Chapter 136.19—Reporting by owner or operator
Chapter 136.20—Record keeping
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
Section 23 Release detection, except for 28–44–23(b)(5)
Section 24 Release reporting, investigation, and confirmation
Section 25 Release response and corrective action for underground storage tank systems containing petroleum or hazardous substances
Section 26 Out-of-service underground storage tank systems and closure
Section 27 Financial responsibility

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 Funding; 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 2195.10 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
4. *Chapter 7—Methods of Release Detection and Release Reporting, Investigation, Confirmation, and Response*
   Section 701 Methods of Release Detection
   Section 703 Requirements for Use of Release Detection Methods
   Section 705 Release Detection Recordkeeping
   Section 707 Reporting of Suspected Releases
   Section 709 Investigation due to Off-site Impacts
   Section 711 Release Investigation and Confirmation Steps
   Section 713 Reporting and Cleanup of Spills and Overfills
   Section 715 Release Response and Corrective Action for UST Systems Containing Petroleum or Hazardous Substances
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:

(a) The statutory provisions include: Maine Revised Statutes Annotated, 1990, Tile 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–A—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
Section 13. Severability
Appendix A: Cathodic Protection Monitoring
Appendix B: Hydrostatic Piping Line Tightness Tests
Appendix C: Requirements for Pneumatic Testing
Appendix D: Installation of Underground Tanks
Appendix E: Installation for Underground Piping
Appendix F: Specification for Ground Water Vertical Monitoring Wells
Appendix H: Monitoring and Obtaining Samples for Laboratory Analysis
Appendix J: Requirements for Abandonment by Removal
Appendix K: Requirements for Abandonment in Place

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)–(I) and (K)–(L) (effective July 3, 1993); and Massachusetts Environmental Protection Rules, 310 CMR 40.0000 Subparts A–O insofar as 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 9.05—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 Releases 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

Mississippi

(a) The statutory provisions include:

1. Mississippi Code of 1972, Title 49, Sections 49–17–401 through 49–17–435, Underground Storage Tank Act of 1988, as amended.

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
280.43 Methods of release detection for piping
280.44 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 changes-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

2. Financial Responsibility Requirements for Underground Storage Tanks Containing Petroleum.

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

3. Mississippi Groundwater Protection Trust Fund Regulations.

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:

(1) Nevada Revised Statute Chapter 459, Underground Storage Tank Program (1992), Nevada Revised Statue 590, Petroleum Fund (1991).

(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.

(3) Nevada Revised Statue 590, Petroleum Fund (1991):

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 coil; 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.

(4) Nevada Civil Procedure, Rule 24 (1971):
Nevada Civil Procedure, Rule 24 .
(b) The regulatory provisions includes:
(1) Nevada Administrative Code 459, UST Program (1990):

Section 459.9929 ''Storage Tank'' defined.
Section 459.993 Compliance with federal regulations.
Section 459.995 Financial responsibility of owners and operators.
Section 459.996 Releases: Reporting.

(2) Nevada Administrative Code 590, Petroleum Fund (1991):
Section 590.720 Adoption by reference of provisions of Code of Federal Regulations.

(3) Nevada Administrative Code, Reportable Quantities (1989):
Section 445.240 Notice required.

New Hampshire

(a) The statutory provisions include New Hampshire Revised Statutes Annotated 1955, 1990 Replacement Edition, and 1992 Cumulative Supplement, Chapter 146–C, Underground Storage Facilities:

Section 146–C:1 Definitions, except for the following words in 146–C:1. XII, ''heating or.''
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.

(2) 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 [Except insofar as it applies to individuals other than UST owners and operators.]
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
74–4–5 Adoption of Regulations; Notice and Hearing
74–4–7 Containment and Cleanup of Hazardous Substance Incidents; Division 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
a. Part I: General Provisions
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
d. Part IV: New and Upgraded UST Systems: Design, Construction, and Installation
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 Compatibility
Section 503 Repairs Allowed
Section 504 Reporting and Recordkeeping
Section 505 Inspections, Monitoring and Testing
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 Releases
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

a. Part I: General Provisions
Section 101 Authority
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

f. Part VI: Miscellaneous Provisions
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
.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 Pamlico River Basin
.0317 White Oak River Basin
.0318 Yadkin-Pee Dee River Basin
.0319 Reclassification

North Carolina Administrative Code, Title 15A—Department of Environment and Natural Resources; Chapter 2, Subchapter 2N, Underground Storage Tanks

1. Section .0100 General Provisions

.0101 General (Except insofar as .0101(c) provides inspection and enforcement authority.)
.0102 Copies of referenced Federal regulations
.0103 Adoption by reference updates
.0104 Identification of tanks

2. Section .0200 Program Scope and Interim Prohibition

.0201 Applicability (Except insofar as it subjects USTs containing de minimis concentrations of regulated substances to closure requirements)
.0202 Interim prohibition for deferred UST systems
.0203 Definitions

3. Section .0300 UST Systems: Design, Construction, Installation, and Notification

.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 Substituted sections

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

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

.0302 Notification

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 23–20.3–08 Imminent Hazard.
Section 23–20.3–10 Applicability.

(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 33–24–08–50 General Release Response and Corrective Action for Underground Storage Tank Systems Containing Petroleum or Hazardous Substances.
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 33–24–08–80 Applicability (financial responsibility).
Section 33–24–08–81 Financial Responsibility Compliance Dates.
Section 33–24–08–82 Definitions (financial responsibility).
Section 33–24–08–83 Amount and Scope of Required Financial Responsibility.
Section 33–24–08–84 Allowable Mechanisms and Combinations of Mechanisms.
Section 33–24–08–85 Financial Test of Self-Insurance.
Section 33–24–08–86 Guarantee.
Section 33–24–08–87 Insurance and Risk Retention Group Coverage.
Section 33–24–08–88 Surety Bond.
Section 33–24–08–89 Letter of Credit.
Section 33–24–08–92 Trust Fund.
Section 33–24–08–93 Standby Trust Fund.
Section 33–24–08–94 Substitution of Financial Assurance mechanisms by Owner or Operator.
Section 33–24–08–95 Cancellation or Nonrenewal by Provider of Financial Assurance.
Section 33–24–08–96 Reporting by Owner or Operator.

Section 33–24–08–97 Recordkeeping.
Section 33–24–08–99 Release from Requirements.
Section 33–24–08–100 Bankruptcy or Other Incapacity of Owner or Operator or Provider of Financial Assurance.
Section 33–24–08–101 Replenishment 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 Nonrenewal of Permit
Section 309 Release from Underground Storage Tank System—Reports—Corrective Action—Powers, Duties and Procedures of Corporation Commission
Section 313 Records, Reports and Informations—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
a. Subchapter 1: General Provisions
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.)
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
Part 17: Requirements for Corrosion Protection Systems
c. Subchapter 5: Requirements for Existing Underground Storage Tank Systems
d. Subchapter 7: Requirements for New Underground Storage Tank Systems
Part 1: Design, Construction, and Installation Requirements
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
f. Subchapter 11: Administrative Provisions
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
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Part 17: Letter of Credit
Part 19: State Fund or Other State Assurance
Part 21: Trust Fund
Part 23: Standby Trust Fund
Part 25: Substitution of Financial Assurance Mechanisms
Part 27: Cancellation or Nonrenewal
Part 29: Reporting
Part 31: Recordkeeping
Part 33: Drawing on Financial Assurance Mechanisms
Part 35: Release from Subchapter 11 Requirements
Part 37: Bankruptcy or Other Incapacity of Owner/Operator or Provider of Financial Assurance
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2. Oklahoma Annotated Code, Chapter 27: Indemnity Fund
a. Subchapter 1: General Provisions
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
Section 165:27–1–6 Prescribed Forms
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

PUERTO RICO

(a) The statutory provisions include:

1. Public Policy Environmental Act of 1970, Act Number 9, June 18, 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 license 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 [Except insofar as (b)(5) sets forth enforcement authorities.]

(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.

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
(5) Rule 105—Definitions and Abbreviations [Except insofar as the Puerto Rico definition of ''Underground Storage Tank or UST'' does not exclude from regulation heating oil tanks used for storing heating oil for consumptive use on the premises where stored.]

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

f. Part VI—Release Response and Corrective Action for UST Systems Containing Petroleum or Hazardous Substances.

(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 water 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 Changes-in-Service
(3) Rule 703—Assessing the Site at Closure or Change-in-Service
(4) Rule 704—Applicability to Previously Closed UST Systems
(5) 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

i. Part IX—Financial Responsibility Requirements.

(1) Rule 901—Applicability
(2) Rule 902—Compliance Dates
(3) Rule 903—Definition of Terms
(4) Rule 904—Amount and Scope of Required Financial Responsibility
(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

j. Part X—General Provisions.

(1) Rule 1001—Amendments to this Regulation
(2) Rule 1002—Monitoring, Recordkeeping, Reporting, Sampling, and Testing Methods
(3) Rule 1003—Malfunction or Non-compliance, Reporting
(4) Rule 1004—Confidentiality of Information
(5) Rule 1006—Public Notice and Public Hearings
(6) Rule 1009—Public Nuisance
(7) Rule 1011—Overlapping or Inconsistent Provisions
(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.
Section 74:03:28:28 Reporting of hazardous substance releases from UST systems.
Section 74:03:28:29 Temporary removal from use.
Section 74:03:28:30 Temporary closure.
Section 74:03:28:31 Permanent closure.
Section 74:03:28:32 Postclosure requirements.
Section 74:03:29:01 Applicability.
Section 74:03:29:23 Definitions.
Section 74:03:29:24 Financial responsibility rules.

Tennessee

(a) The statutory provisions include:

1. Section 68–215–101 Short title
2. Section 68–215–102 Legislative intent [Except §68–215–102(a)(3) and except §68–215–102(a)(5).]
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).]
6. Section 68–215–107 Supervision, inspection, and enforcement responsibilities [Except §68–215–107(e) and except §68–215–107(f)(9).]
7. Section 68–215–108 Proprietary information
8. Section 68–215–118 Compliance by governmental entities
9. Section 68–215–123 Complaints—Hearings—Appeals
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) Upgrading 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
   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 recordkeeping
5. 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
6. 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 ground water cleanup
Section .06(7) Corrective action plan
Section .06(8) Public participation
7. 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
8. 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 nonrenewel 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 26.355 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
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
a. Subchapter A: General Provisions
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 release reporting and corrective action requirements 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; (3) Requires USTs that store radioactive substances or are part of a nuclear power plant to comply with registration and general operating requirements; and (4) Applies release reporting 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
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—Initial 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

9. Subchapter M: Reimbursable Cost Guidelines for the Petroleum Storage Tank Reimbursement Program
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:

(1) Administrative Rules of the State of Utah, Utah Administrative Code (1993):
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.
Section R311–206–5 Revocation and Reissuance of Certificates, except (b), (c), (d), and the words ''compliance or'' in R311–206–5(a).

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.
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 C Procedures for Manual Tank Gauging.
Appendix D Installation Requirements Applicable to New and Replacement UST Systems.

[58 FR 58625, Nov. 2, 1993]

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 on GPO Access.