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§ 267.1105 What do I do if my containment building contains areas both with and without secondary containment?

For these containment buildings, you must:

(a) Design and operate each area in accordance with the requirements enumerated in §§ 267.1101 through 267.1103.

(b) Take measures to prevent the release of liquids or wet materials into areas without secondary containment.

(c) Maintain in the facility's operating log a written description of the operating procedures used to maintain the integrity of areas without secondary containment.

§ 267.1106 What do I do if I detect a release?

Throughout the active life of the containment building, if you detect a condition that could lead to or has caused a release of hazardous waste, you must repair the condition promptly, in accordance with the following procedures.

(a) Upon detection of a condition that has lead to a release of hazardous waste (for example, upon detection of leakage from the primary barrier), you must:

(1) Enter a record of the discovery in the facility operating record;

(2) Immediately remove the portion of the containment building affected by the condition from service;

(3) Determine what steps you must take to repair the containment building, to remove any leakage from the secondary collection system, and to establish a schedule for accomplishing the cleanup and repairs; and

(4) Within 7 days after the discovery of the condition, notify the Regional Administrator of the condition, and within 14 working days, provide a written notice to the Regional Administrator with a description of the steps taken to repair the containment building, and the schedule for accomplishing the work.

(b) The Regional Administrator will review the information submitted, make a determination regarding whether the containment building must be removed from service completely or partially until repairs and cleanup are complete, and notify you of the determination and the underlying rationale in writing.

(c) Upon completing all repairs and cleanup, you must notify the Regional Administrator in writing and provide a verification, signed by a qualified, registered professional engineer, that the repairs and cleanup have been completed according to the written plan submitted in accordance with paragraph (a)(4) of this section.

§ 267.1107 Can a containment building itself be considered secondary containment?

Containment buildings can serve as secondary containment systems for tanks placed within the building under certain conditions.

(a) A containment building can serve as an external liner system for a tank, provided it meets the requirements of § 267.196(a).

(b) The containment building must also meet the requirements of § 267.195(a), (b)(1) and (2) to be considered an acceptable secondary containment system for a tank.

§ 267.1108 What must I do when I stop operating the containment building?

When you close a containment building, you must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless 40 CFR 261.3(d) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for containment buildings must meet all of the requirements specified in subparts G and H of this part.

PART 268—LAND DISPOSAL RESTRICTIONS

Subpart A—General

Sec.

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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 very small quantity generators, as defined in § 260.10 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) Mercury-containing equipment as described in § 273.4 of this chapter;

(4) Lamps as described in § 273.5 of this chapter; and

(5) Aerosol cans as described in § 273.6 of this chapter.

[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; 70 FR 45520, Aug. 5, 2005; 81 FR 85828, Nov. 28, 2016; 84 FR 67217, Dec. 9, 2019]

§ 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; 71 FR 40278, July 14, 2006]

§ 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 265 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; 71 FR 40278, July 14, 2006]

§ 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 meets the following criteria:

(i) All sampling, testing, and analytical data must be approved by the Administrator and must provide data that is accurate and reproducible.

(ii) All estimation and monitoring techniques must be approved by the Administrator.

(iii) A quality assurance and quality control plan addressing all aspects of the monitoring program must be provided to and approved by the Administrator.

(d) Each petition must be submitted to the Administrator.

(e) After a petition has been approved, the owner or operator must report any changes in conditions at the unit and/or the environment around the unit that significantly depart from the conditions described in the variance and affect the potential for migration of hazardous constituents from the units as follows:

(1) If the owner or operator plans to make changes to the unit design, construction, or operation, such a change must be proposed, in writing, and the owner or operator must submit a demonstration to the Administrator at least 30 days prior to making the change. The Administrator will determine whether the proposed change invalidates the terms of the petition and will determine the appropriate response. Any change must be approved by the Administrator prior to being made.

(2) If the owner or operator discovers that a condition at the site which was modeled or predicted in the petition does not occur as predicted, this change must be reported, in writing, to

the Administrator within 10 days of discovering the change. The Administrator will determine whether the reported change from the terms of the petition requires further action, which may include termination of waste acceptance and revocation of the petition, petition modifications, or other responses.

(f) If the owner or operator determines that there is migration of hazardous constituent(s) from the unit, the owner or operator must:

(1) Immediately suspend receipt of prohibited waste at the unit, and

(2) Notify the Administrator, in writing, within 10 days of the determination that a release has occurred.

(3) Following receipt of the notification the Administrator will determine, within 60 days of receiving notification, whether the owner or operator can continue to receive prohibited waste in the unit and whether the variance is to be revoked. The Administrator shall also determine whether further examination of any migration is warranted under applicable provisions of part 264 or part 265.

(g) Each petition must include the following statement signed by the petitioner or an authorized representative:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this petition and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that submitted information is true, accurate, and complete. I am aware 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; 71 FR 40278, July 14, 2006]

§ 268.7 Testing, tracking, and recordkeeping requirements for generators, reverse distributors, treaters, and disposal facilities.

(a) *Requirements for generators and reverse distributors*—(1) A generator of hazardous waste must determine if the waste has to be treated before it can be land disposed. This is done by determining if the hazardous waste meets the treatment standards in § 268.40, 268.45, or § 268.49. This determination can be made concurrently with the hazardous waste determination required in § 262.11 of this chapter, in either of two ways: testing the waste or using knowledge of the waste. If the generator tests the waste, testing would normally determine the total concentration of hazardous constituents, or the

concentration of hazardous constituents in an extract of the waste obtained using test method 1311 in ''Test Methods of Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication SW–846, (incorporated by reference, see § 260.11 of this chapter), depending on whether the treatment standard for the waste is expressed as a total concentration or concentration of hazardous constituent in the waste's extract. (Alternatively, the generator must send the waste to a RCRA-permitted hazardous waste treatment facility, where the waste treatment facility must comply with the requirements of § 264.13 of this chapter and paragraph (b) of this section.) In addition, some hazardous wastes must be treated by particular treatment methods before they can be land disposed and some soils are contaminated by such hazardous wastes. These treatment standards are also found in § 268.40, and are described in detail in § 268.42, Table 1. These wastes, and soils contaminated with such wastes, do not need to be tested (however, if they are in a waste mixture, other wastes with concentration level treatment standards would have to be tested). If a generator determines they are managing a waste or soil contaminated with a waste, that displays a hazardous characteristic of ignitability, corrosivity, reactivity, or toxicity, they must comply with the special requirements of § 268.9 of this part in addition to any applicable requirements in this section.

(2) If the waste or contaminated soil does not meet the treatment standards, or if the generator chooses not to make the determination of whether his waste must be treated, with the initial shipment of waste to each treatment or storage facility, the generator must send a one-time written notice to each treatment or storage facility receiving the waste, and place a copy in the file. The notice must include the information in column ''268.7(a)(2)'' of the Generator Paperwork Requirements Table in paragraph (a)(4) of this section. (Alternatively, if the generator chooses not to make the determination of whether the waste must be treated, the notification must include the EPA Hazardous Waste Numbers and Manifest Number of the first shipment and must state ''This hazardous waste may or may not be subject to the LDR treatment standards. The treatment facility must make the determination.'') No further notification is necessary until such time that the waste or facility change, in which case a new notification must be sent and a copy placed in the generator's file.

(3) If the waste or contaminated soil meets the treatment standard at the original point of generation:

(i) With the initial shipment of waste to each treatment, storage, or disposal facility, the generator must send a one-time written notice to each treatment, storage, or disposal facility receiving the waste, and place a copy in the file. The notice must include the information indicated in column ''268.7(a)(3)'' of the Generator Paperwork Requirements Table in § 268.7(a)(4) and the following certification statement, signed by an authorized representative:

> I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR part 268 subpart D. I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

(ii) For contaminated soil, with the initial shipment of wastes to each treatment, storage, or disposal facility, the generator must send a one-time written notice to each facility receiving the waste and place a copy in the file. The notice must include the information in column ''268.7(a)(3)'' of the Generator Paperwork Requirements Table in § 268.7(a)(4).

(iii) If the waste changes, the generator must send a new notice and certification to the receiving facility, and place a copy in their files. Generators of hazardous debris excluded from the definition of hazardous waste under § 261.3(f) of this chapter are not subject to these requirements.

(4) For reporting, tracking, and recordkeeping when exceptions allow certain wastes or contaminated soil that do not meet the treatment standards to be land disposed: There are certain exemptions from the requirement that

hazardous wastes or contaminated soil meet treatment standards before they can be land disposed. These include, but are not limited to case-by-case extensions under § 268.5, disposal in a no-migration unit under § 268.6, or a national capacity variance or case-by-case capacity variance under subpart C of this part. If a generator's waste is so exempt, then with the initial shipment of waste, the generator must send a one-time written notice to each land disposal facility receiving the waste. The notice must include the information indicated in column ''268.7(a)(4)'' of the Generator Paperwork Requirements Table below. If the waste changes, the generator must send a new notice to the receiving facility, and place a copy in their files.

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 262.15, 262.16, and 262.17 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 to § 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(f) of this chapter (*i.e.*, debris treated by an extraction or destruction technology provided by Table 1, § 268.45, and debris that the Director has determined does not contain hazardous waste), however, is subject to the notification and certification requirements of paragraph (d) of this section rather

than the certification requirements of this paragraph.

(iii) For wastes with organic constituents having treatment standards expressed as concentration levels, if compliance with the treatment standards is based in whole or in part on the analytical detection limit alternative specified in § 268.40(d), the certification, signed by an authorized representative, must state the following:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by combustion units as specified in 268.42, Table 1. I have been unable to detect the nonwastewater organic constituents, despite having used best good-faith efforts to analyze for such constituents. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(iv) For characteristic wastes that are subject to the treatment standards in § 268.40 (other than those expressed as a method of treatment), or § 268.49, and that contain underlying hazardous constituents as defined in § 268.2(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 § 266.20(b) of this chapter regarding treatment standards and prohibition levels, the owner or operator of a treatment facility (*i.e.*, the recycler) must, for the initial shipment of waste, prepare a one-time certification described in paragraph (b)(4) of this section, and a one-time notice which includes the information in paragraph (b)(3) of this section (except the manifest number). The certification and notification must be placed in the facility's on-site files. If the waste or the receiving facility changes, a new certification and notification must be prepared and placed in the on site files. In addition, the recycling facility must also keep records of the name and location of each entity receiving the hazardous waste-derived product.

(c) Except where the owner or operator is disposing of any waste that is a recyclable material used in a manner constituting disposal pursuant to 40 CFR 266.20(b), the owner or operator of any land disposal facility disposing any waste subject to restrictions under this part must:

(1) Have copies of the notice and certifications specified in paragraph (a) or (b) of this section.

(2) Test the waste, or an extract of the waste or treatment residue developed using test method 1311 (the Toxicity Characteristic Leaching Procedure, described in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication SW–846 as incorporated by reference in § 260.11 of this chapter), to assure that the wastes or treatment residues are in

compliance with the applicable treatment standards set forth in subpart D of this part. Such testing must be performed according to the frequency specified in the facility's waste analysis plan as required by § 264.13 or § 265.13 of this chapter.

(d) Generators or treaters who first claim that hazardous debris is excluded from the definition of hazardous waste under § 261.3(f) of this chapter (*i.e.*, debris treated by an extraction or destruction technology provided by Table 1, § 268.45, and debris that the EPA Regional Administrator (or his designated representative) or State authorized to implement part 268 requirements has determined does not contain hazardous waste) are subject to the following notification and certification requirements:

(1) A one-time notification, including the following information, must be submitted to the EPA Regional hazardous waste management division director (or his designated representative) or State authorized to implement part 268 requirements:

(i) The name and address of the Subtitle D facility receiving the treated debris;

(ii) A description of the hazardous debris as initially generated, including the applicable EPA Hazardous Waste Number(s); and

(iii) For debris excluded under § 261.3(f)(1) of this chapter, the technology from Table 1, § 268.45, used to treat the debris.

(2) The notification must be updated if the debris is shipped to a different facility, and, for debris excluded under § 261.2(f)(1) of this chapter, if a different type of debris is treated or if a different technology is used to treat the debris.

(3) For debris excluded under § 261.3(f)(1) of this chapter, the owner or operator of the treatment facility must document and certify compliance with the treatment standards of Table 1, § 268.45, as follows:

(i) Records must be kept of all inspections, evaluations, and analyses of treated debris that are made to determine compliance with the treatment standards;

(ii) Records must be kept of any data or information the treater obtains during treatment of the debris that identifies key operating parameters of the treatment unit; and

(iii) For each shipment of treated debris, a certification of compliance with the treatment standards must be signed by an authorized representative and placed in the facility's files. The certification must state the following: ''I certify under penalty of law that the debris has been treated in accordance with the requirements of 40 CFR 268.45. I am aware that there are significant penalties for making a false certification, including the possibility of fine and imprisonment.''

(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 at *www.govinfo.gov*.

§ 268.8 [Reserved]

§ 268.9 Special rules regarding wastes that exhibit a characteristic.

(a) The initial generator of a solid waste must determine each EPA Hazardous Waste Number (waste code) applicable to the waste in order to determine the applicable treatment standards under subpart D of this part. This determination may be made concurrently with the hazardous waste determination required in § 262.11 of this chapter. For purposes of part 268, the waste will carry the waste code for any applicable listed waste (40 CFR part 261, subpart D). In addition, where the

waste exhibits a characteristic, the waste will carry one or more of the characteristic waste codes (40 CFR part 261, subpart C), except when the treatment standard for the listed waste operates in lieu of the treatment standard for the characteristic waste, as specified in paragraph (b) of this section. If the generator determines that their waste displays a hazardous characteristic (and is not D001 nonwastewaters treated by CMBST, RORGS, OR POLYM of § 268.42, Table 1), the generator must determine the underlying hazardous constituents (as defined at § 268.2(i)) in the characteristic waste.

(b) Where a prohibited waste is both listed under 40 CFR part 261, subpart D and exhibits a characteristic under 40 CFR part 261, subpart C, the treatment standard for the waste code listed in 40 CFR part 261, subpart D will operate in 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 generator's or treater's on-site files. The notification and certification must be updated if the process or operation generating the waste changes and/or if the subtitle D facility receiving the waste changes.

(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; 71 FR 16913, Apr. 4, 2006]

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, notwithstanding that the waste is otherwise prohibited from land disposal, provided that the surface impoundment is in compliance with the requirements of subpart F of part 265 of this chapter within 12 months after promulgation of the new listing or characteristic.

(c) Wastes which are newly identified or listed under section 3001 after November 8, 1984, and treated in a surface impoundment that is newly subject to subtitle C of RCRA as a result of the additional identification or listing, may continue to be treated in that surface impoundment, notwithstanding that the waste is otherwise prohibited from land disposal, provided that surface impoundment is in compliance with the requirements of subpart F of part 265 of this chapter within 12 months after the promulgation of the new listing or characteristic. In addition, if the surface impoundment continues to treat hazardous waste after 48 months from promulgation of the additional listing or characteristic, it must then be in compliance with § 268.4.

[57 FR 37271, Aug. 18, 1992, as amended at 71 FR 40278, July 14, 2006]

Subpart C—Prohibitions on Land Disposal

§ 268.20 Waste specific prohibitions—Dyes and/or pigments production wastes.

(a) Effective August 23, 2005, the waste specified in 40 CFR part 261 as EPA Hazardous Waste Number K181, and soil and debris contaminated with this waste, radioactive wastes mixed with this waste, and soil and debris contaminated with radioactive wastes mixed with this waste are prohibited from land disposal.

(b) The requirements of paragraph (a) of this section do not apply if:

(1) The wastes meet the applicable treatment standards specified in subpart D of this Part;

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under § 268.6, with respect to those wastes and units covered by the petition;

(3) The wastes meet the applicable treatment standards established pursuant to a petition granted under § 268.44;

(4) Hazardous debris has met the treatment standards in § 268.40 or the alternative treatment standards in § 268.45; or

(5) Persons have been granted an extension to the effective date of a prohibition pursuant to § 268.5, with respect to these wastes covered by the extension.

(c) To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in § 268.40, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract of the waste, or the generator may use knowledge of the waste. If the waste contains regulated constituents in excess of the applicable subpart D levels, the waste is prohibited from land disposal, and all requirements of part 268 are applicable, except as otherwise specified.

[70 FR 9177, Feb. 24, 2005]

§§ 268.21–268.29 [Reserved]

§ 268.30 Waste specific prohibitions—wood preserving wastes.

(a) Effective August 11, 1997, the following wastes are prohibited from land disposal: the wastes specified in 40 CFR part 261 as EPA Hazardous Waste numbers F032, F034, and F035.

(b) Effective May 12, 1999, the following wastes are prohibited from land disposal: soil and debris contaminated with F032, F034, F035; and radioactive wastes mixed with EPA Hazardous waste numbers F032, F034, and F035.

(c) Between May 12, 1997 and May 12, 1999, soil and debris contaminated with F032, F034, F035; and radioactive waste mixed with F032, F034, and F035 may be disposed in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in § 268.5(h)(2) of this part.

(d) The requirements of paragraphs (a) and (b) of this section do not apply if:

(1) The wastes meet the applicable treatment standards specified in Subpart D of this part;

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under § 268.6, with respect to those wastes and units covered by the petition;

(3) The wastes meet the applicable 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 1310B, the Extraction Procedure Toxicity Test. For wastes covered by a technology standard, the wastes may be land disposed after being treated using that specified technology or an equivalent treatment technology approved by the Administrator under the procedures set forth in § 268.42(b).

(c) When wastes with differing treatment standards for a constituent of concern are combined for purposes of treatment, the treatment residue must meet the lowest treatment standard for the constituent of concern.

(d) Notwithstanding the prohibitions specified in paragraph (a) of this section, treatment and disposal facilities may demonstrate (and certify pursuant to 40 CFR 268.7(b)(5)) compliance with the treatment standards for organic constituents specified by a footnote in the table ''Treatment Standards for

Hazardous Wastes'' in this section, provided the following conditions are satisfied:

(1) The treatment standards for the organic constituents were established based on incineration in units operated in accordance with the technical requirements of 40 CFR part 264, subpart O, or based on combustion in fuel substitution units operating in accordance with applicable technical requirements;

(2) The treatment or disposal facility has used the methods referenced in paragraph (d)(1) of this section to treat the organic constituents; and

(3) The treatment or disposal facility may demonstrate compliance with organic constituents if good-faith analytical efforts achieve detection limits for the regulated organic constituents that do not exceed the treatment standards specified in this section by an order of magnitude.

(e) For characteristic wastes (D001–D043) that are subject to treatment standards in the following table ''Treatment Standards for Hazardous Wastes,'' and are not managed in a wastewater treatment system that is regulated under the Clean Water Act (CWA), that is CWA-equivalent, or that is injected into a Class I nonhazardous deep injection well, all underlying hazardous constituents (as defined in § 268.2(i)) must meet Universal Treatment Standards, found in § 268.48, Table Universal Treatment Standards, prior to land disposal as defined in § 268.2(c) of this part.

(f) The treatment standards for F001–F005 nonwastewater constituents carbon disulfide, cyclohexanone, and/or methanol apply to wastes which contain only one, two, or three of these constituents. Compliance is measured for these constituents in the waste extract from test Method 1311, the Toxicity Characteristic Leaching Procedure found in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods'', EPA Publication SW–846, as incorporated by reference in § 260.11. If the waste contains any of these three constituents along with any of the other 25 constituents found in F001–F005, then compliance with treatment standards for carbon disulfide, cyclohexanone, and/or methanol are not required.

(g) Between August 26, 1996 and March 4, 1999 the treatment standards for the wastes specified in 40 CFR 261.32 as EPA Hazardous Waste numbers K156–K161; and in 40 CFR 261.33 as EPA Hazardous Waste numbers P127, P128, P185, P188–P192, P194, P196–P199, P201–P205, U271, U277–U280, U364–U367, U372, U373, U375–U379, U381–U387, U389–U396, U400–U404, U407, and U409–U411; and soil contaminated with these wastes; may be satisfied by either meeting the constituent concentrations presented in the table ''Treatment Standards for Hazardous Wastes'' in this section, or by treating the waste by the following technologies: combustion, as defined by the technology code CMBST at § 268.42 Table 1, for nonwastewaters; and, biodegradation as defined by the technology code BIODG, carbon adsorption as defined by the technology code CARBN, chemical oxidation as defined by the technology code CHOXD, or combustion as defined as technology code CMBST at § 268.42 Table 1, for wastewaters.

(h) Prohibited D004–D011 mixed radioactive wastes and mixed radioactive listed wastes containing metal constituents, that were previously treated by stabilization to the treatment standards in effect at that time and then put into storage, do not have to be re-treated to meet treatment standards in this section prior to land disposal.

(i) [Reserved]

(j) Effective September 4, 1998, the treatment standards for the wastes specified in 40 CFR 261.33 as EPA Hazardous Waste numbers P185, P191, P192, P197, U364, U394, and 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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg 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) Arsenic Barium Cadmium Chromium (Total) Lead Mercury Selenium Silver	NA 7440–38–2 7440–39–3 7440–43–9 7440–47–3 7439–92–1 7439–97–6 7782–49–2 7440–22–4	NA NA NA NA NA NA NA NA NA	HLVIT HLVIT HLVIT HLVIT HLVIT HLVIT HLVIT HLVIT 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]

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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
	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
	Radioactively contaminated cadmium containing batteries. (**Note:** This subcategory consists of nonwastewaters only)	Cadmium	7440–43–9	NA	Macroencapsulation in accordance with 40 CFR 268.45.
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
	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 mg/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
	Radioactively contaminated mercury containing batteries. **(Note:** This subcategory consists of nonwastewaters only)	Mercury	7439–97–6	NA	Macroencapsulation in accordance with 40 CFR 268.45.
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]

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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
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]
	Radioactively contaminated silver containing batteries. **Note:** This subcategory consists of nonwastewaters only)	Silver	7440–22–4	NA	Macroencapsulation in accordance with 40 CFR 268.45.
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]

D016 [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]
D017 [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]
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]

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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
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]
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

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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
		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	75–15–0	3.8	4.8 mg/L TCLP
		Cyclohexanone	108–94–1	0.36	0.75 mg/L TCLP
		Methanol	67–56–1	5.6	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	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	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
F007	Spent cyanide plating bath solutions from electroplating 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
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
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating 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
F012	Quenching wastewater treatment sludges from metal heat treating 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
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) Cyanides (Total) [7] Cyanides (Amendable) [7]	7440–47–3 57–12–5 57–12–5	2.77 1.2 0.86	0.60 mg/L TCLP 590 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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
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			
		2,4-6-Trichlorophenol	95–95–4	0.18	7.4
		2,3,4,6-Tetrachlorophenol	88–06–2	0.035	7.4
			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	0.27	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
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

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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [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)		0.11	
		Benzo(a)pyrene	207–08–9		6.8
		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	Wasteswaters (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
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

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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
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
		o-Anisidine (2-methoxyaniline)	90-04-0	0.010	0.66
		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
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
p-Cresidine	120-71-8	0.010	0.66
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

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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
		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-Dimethylaniline (2,4-xylidine)	95-68-1	0.010	0.66
		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
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

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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
		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
		2,4-Dimethylaniline (2,4-xylidine)	108-45-2	0.010	0.66
		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
		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

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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
K003	Wastewater treatment sludge from the production of molybdate orange pigments.	Chromium (Total) Lead	7440–47–3 7439–92–1	2.77 0.69	0.60 mg/L TCLP 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	75–05–8	5.6	38
		Acrylonitrile	107–13–1	0.24	84
		Acrylamide	79–06–1	19	23
		Benzene	71–43–2	0.14	10
		Cyanide (Total)	57–12–5	1.2	590
K015	Still bottoms from the distillation of benzyl chloride.	Anthracene	120–12–7	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
		Phenanthrene	85–01–8	0.059	5.6
		Toluene	108–88–3	0.080	10
		Chromium (Total)	7440–47–3	2.77	0.60 mg/L TCLP
		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

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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.	1,2-Dichloroethane	107–06–2	0.21	6.0
		1,1,2,2-Tetrachloroethane	79–34–6	0.057	6.0
		Tetrachloroethylene	127–18–4	0.056	6.0
K021	Aqueous spent antimony catalyst waste from fluoromethanes production.	Carbon tetrachloride	56–23–5	0.057	6.0
		Chloroform	67–66–3	0.046	6.0
		Antimony	7440–36–0	1.9	1.15 mg/L TCLP
K022	Distillation bottoms tars from the production of phenol/acetone from cumene.	Toluene	108–88–3	0.080	10
		Acetophenone	96–86–2	0.010	9.7
		Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122–39–4	0.92	13
		Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86–30–6	0.92	13
		Phenol	108–95–2	0.039	6.2
		Chromium (Total)	7440–47–3	2.77	0.60 mg/L TCLP
		Nickel	7440–02–0	3.98	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)	100–21–0	0.055	28
		Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85–44–9	0.055	28
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene.	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
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	75–34–3	0.059	6.0
		trans-1,2-Dichloroethylene	156–60–5	0.054	30
		Hexachlorobutadiene	87–68–3	0.055	5.6
		Hexachloroethane	67–72–1	0.055	30

		Pentachloroethane 1,1,1,2-Tetrachloroethane 1,1,2,2-Tetrachloroethane Tetrachloroethylene 1,1,1-Trichloroethane 1,1,2-Trichloroethane Cadmium Chromium (Total) Lead Nickel	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 7440–02–0	NA 0.057 0.057 0.056 0.054 0.054 0.69 2.77 0.69 3.98	6.0 6.0 6.0 6.0 6.0 6.0 NA 0.60 mg/L TCLP 0.75 mg/L TCLP 11 mg/L TCLP
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane.	Chloroform 1,2-Dichloroethane 1,1-Dichloroethylene 1,1,1-Trichloroethane Vinyl chloride	67–66–3 107–06–2 75–35–4 71–55–6 75–01–4	0.046 0.21 0.025 0.054 0.27	6.0 6.0 6.0 6.0 6.0
K030	Column bodies or heavy ends from the combined production of trichloroethylene and perchloroethylene.	o-Dichlorobenzene p-Dichlorobenzene Hexachlorobutadiene Hexachloroethane Hexachloropropylene Pentachlorobenzene Pentachloroethane 1,2,4,5-Tetrachlorobenzene Tetrachloroethylene 1,2,4-Trichlorobenzene	95–50–1 106–46–7 87–68–3 67–72–1 1888–71–7 608–93–5 76–01–7 95–94–3 127–18–4 120–82–1	0.088 0.090 0.055 0.055 NA NA NA 0.055 0.056 0.055	NA NA 5.6 30 30 10 6.0 14 6.0 19
K031	By-product salts generated in the production of MSMA and cacodylic acid.	Arsenic	7440–38–2	1.4	5.0 mg/L TCLP
K032	Wastewater treatment sludge from the production of chlordane.	Hexachlorocyclopentadiene Chlordane (alpha and gamma isomers) Heptachlor Heptachlor epoxide	77–47–4 57–74–9 76–44–8 1024–57–3	.057 0.0033 0.0012 0.016	2.4 0.26 0.066 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 Anthracene Benz(a)anthracene Bemzo(a)pyrene Chrysene o-Cresol m-Cresol (difficult to distinguish from p-cresol)	83–32–9 120–12–7 56–55–3 50–32–8 218–01–9 95–48–7 108–39–4	NA NA 0.059 0.061 0.059 0.11 0.77	3.4 3.4 3.4 3.4 3.4 5.6 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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
		p-Cresol (difficult to distinguish from m-cresol)	106–44–5	0.77	5.6
		Dibenz(a,h)anthracene	53–70–3	NA	8.2
		Fluoranthene	206–44–0	0.068	3.4
		Fluorene	86–73–7	NA	3.4
		Indeno(1,2,3-cd)pyrene	193–39–5	NA	3.4
		Naphthalene	91–20–3	0.059	5.6
		Phenanthrene	85–01–1	0.059	5.6
		Phenol	108–95–2	0.039	6.2
		Pyrene	129–00–0	0.067	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	298–04–4	0.017	6.2
		Toluene	108–88–3	0.080	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	95–50–1	0.088	6.0
		p-Dichlorobenzene	106–46–7	0.090	6.0
		Pentachlorobenzene	608–93–5	0.055	10
		1,2,4,5-Tetrachlorobenzene	95–94–3	0.055	14
		1,2,4-Trichlorobenzene	120–82–1	0.055	19
K043	2,6-Dichlorophenol waste from the production of 2,4-D.	2,4-Dichlorophenol	120–83–2	0.044	14
		2,6-Dichlorophenol	187–65–0	0.044	14
		2,4,5-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
		Pentachlorophenol	87–86–5	0.089	7.4
		Tetrachloroethylene	127–18–4	0.056	6.0

		HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
		PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
		TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
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 from 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	218–01–9	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

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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
		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	218–01–9	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
		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

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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
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	56–23–5	0.057	6.0
		Chloroform	67–66–3	0.046	6.0
		Hexachloroethane	67–72–1	0.055	30
		Tetrachloroethylene	127–18–4	0.056	6.0
		1,1,1-Trichloroethane	71–55–6	0.054	6.0
K083	Distillation bottoms from aniline production.	Aniline	62–53–3	0.81	14
		Benzene	71–43–2	0.14	10
		Cyclohexanone	108–94–1	0.36	NA
		Diphenylamine (difficult to distinguish from diphenylnitrosamine	122–39–4	0.92	13
		Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86–30–6	0.92	13
		Nitrobenzene	98–95–3	0.068	14
		Phenol	108–95–2	0.039	6.2
		Nickel	7440–02–0	3.98	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	71–43–2	0.14	10
		Chlorobenzene	108–90–7	0.057	6.0
		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
		Hexachlorobenzene	118–74–1	0.055	10
		Total PCBs (sum of all PCB isomers, or all Aroclors)	1336–36–3	0.10	10
		Pentachlorobenzene	608–93–5	0.055	10
		1,2,4,5-Tetrachlorobenzene	95–94–3	0.055	14

		1,2,4-Trichlorobenzene	120–82–1	0.055	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	67–64–1	0.28	160
		Acetophenone	96–86–2	0.010	9.7
		bis(2-Ethylhexyl) phthalate	117–81–7	0.28	28
		n-Butyl alcohol	71–36–3	5.6	2.6
		Butylbenzyl phthalate	85–68–7	0.017	28
		Cyclohexanone	108–94–1	0.36	NA
		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
		Benz(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

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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
		Fluoranthene	206–44–0	0.068	3.4
		Indeno(1,2,3,-cd)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
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	51–28–5	0.12	160
		Nitrobenzene	98–95–3	0.068	14
		Phenol	108–95–2	0.039	6.2
K104	Combined wastewater streams generated from nitrobenzene/aniline production.	Aniline	62–53–3	0.81	14
		Benzene	71–43–2	0.14	10

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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
		2,4-Dinitrophenol	51–28–5	0.12	160
		Nitrobenzene	98–95–3	0.068	14
		Phenol	108–95–2	0.039	6.2
		Cyanides (Total) [7]	57–12–5	1.2	590
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.	Benzene	71–43–2	0.14	10
		Chlorobenzene	108–90–7	0.057	6.0
		2-Chlorophenol	95–57–8	0.044	5.7
		o-Dichlorobenzene	95–50–1	0.088	6.0
		p-Dichlorobenzene	106–46–7	0.090	6.0
		Phenol	108–95–2	0.039	6.2
		2,4,5-Trichlorophenol	95–95–4	0.18	7.4
		2,4,6-Trichlorophenol	88–06–2	0.035	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

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	121–14–2 606–20–2	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 dinitrotoluene.	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

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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
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)	74–83–9	0.11	15
		Chloroform	67–66–3	0.46	6.0
		Ethylene dibromide (1,2-Dibromoethane)	106–93–4	0.028	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	71–43–2	0.14	10
		Benz(a)anthracene	56–55–3	0.059	3.4
		Benzo(a)pyrene	50–2–8	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
K142	Tar storage tank residues from the production of coke from coal or 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)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
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

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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
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	98–86–2	0.010	9.7
		Aniline	62–53–3	0.81	14
		Benomyl [10]	17804–35–2	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Benzene	71–43–2	0.14	10
		Carbaryl [10]	63–25–2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
		Carbenzadim [10]	10605–21–7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Carbofuran [10]	1563–66–2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST

		Carbosulfan [10]	55285–14–8	0.028; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		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 [10]	16752–77–5	0.028; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
		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	121–44–8	0.081; or CMBST, CHOXD, BIODG or CARBN	1.5; or CMBST
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 [10]	16752–77–5	0.028; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
		Methylene chloride	75–09–2	0.089	30
		Methylethyl ketone	78–93–3	0.28	36
		Pyridine	110–86–1	0.014	16
		Triethylamine	121–44–8	0.081 or CMBST, CHOXD, BIODG or CARBN	1.5; or CMBST
K158	Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes	Benzene	71–43–2	0.14	10
		Carbenzadim [10]	10605–21–7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Carbofuran [10]	1563–66–2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
		Carbosulfan [10]	55285–14–8	0.028; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		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 [10]	2008–41–5	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or 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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
		EPTC (Eptam) [10]	759–94–4	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Molinate [10]	2212–67–1	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Pebulate [10]	1114–71–2	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Vernolate [10]	1929–77–7	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
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) [10]	NA	0.028; or CMBST, CHOXD, BIODG or CARBN	28; or CMBST
		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
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]

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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
		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] pH [12]	7438–97–6	NA NA	0.025 mg/L TCLP 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 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 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
K181	Nonwastewaters from the production of dyes and/or pigments (including nonwastewaters commingled at the point of generation with nonwastewaters from other processes) that, at the point of generation, contain mass loadings of any of the constituents identified in paragraph (c) of section 261.32 that are equal to or greater than the corresponding paragraph (c) levels, as determined on a calendar year basis	Aniline o-Anisidine (2-methoxyaniline) 4-Chloroaniline p-Cresidine 2,4-Dimethylaniline (2,4-xylidine) 1,2-Phenylenediamine 1,3-Phenylenediamine	62–53–3 90–04–0 106–47–8 120–71–8 95–68–1 95–54–5 108–45–2	0.81 0.010 0.46 0.010 0.010 CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN 0.010	14 0.66 16 0.66 0.66 CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN 0.66
P001	Warfarin, & salts, when present at concentrations greater than 0.3%	Warfarin	81–81–2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
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

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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
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] Cyanides (Amenable) [7]	7440–39–3 57–12–5 57–12–5	NA 1.2 0.86	21 mg/L TCLP 590 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
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

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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
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	72–20–8	0.0028	0.13

		Endrin aldehyde	7421–93–4	0.025	0.13
P054	Aziridine	Aziridine	151–56–4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
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

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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
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
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]	57–12–5	1.2	590

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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
		Cyanides (Amenable) [7]	57–12–5	0.86	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
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 [10]	Carbofuran	1563–66–2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
P128	Mexacarbate[10]	Mexacarbate	315–18–4	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P185	Tirpate [10]	Tirpate	26419–73–8	0.056; or CMBST, CHOXD, BIODG or CARBN	0.28; or CMBST
P188	Physostigmine salicylate [10]	Physostigmine salicylate	57–64–7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P189	Carbosulfan [10]	Carbosulfan	55285–14–8	0.028; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P190	Metolcarb [10]	Metolcarb	1129–41–5	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or 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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
P191	Dimetilan [10]	Dimetilan	644–64–4	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P192	Isolan [10]	Isolan	119–38–0	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P194	Oxamyl [10]	Oxamyl	23135–22–0	0.056; or CMBST, CHOXD, BIODG or CARBN	0.28; or CMBST
P196	Manganese dimethyldithio-carbamate [10]	Dithiocarbamates (total)	NA	0.028; or CMBST, CHOXD, BIODG or CARBN	28; or CMBST
P197	Formparanate [10]	Formparante	17702–57–7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P198	Formetanate hydrochloride [10]	Formetanate hydrochloride	23422–53–9	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P199	Methiocarb [10]	Methiocarb	2032–65–7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P201	Promecarb [10]	Promecarb	2631–37–0	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P202	m-Cumenyl methylcarbamate [10]	m-Cumenyl methylcarbamate	64–00–6	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P203	Aldicarb sulfone [10]	Aldicarb sulfone	1646–88–4	0.056; or CMBST, CHOXD, BIODG or CARBN	0.28; or CMBST
P204	Physostigmine [10]	Physostigmine	57–47–6	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P205	Ziram [10]	Dithiocarbamates (total)	NA	0.028; or CMBST, CHOXD, BIODG or CARBN	28; or CMBST

U001	Acetaldehyde	Acetaldehyde	75–07–0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U002	Acetone	Acetone	67–64–1	0.28	160
U003	Acetonitrile	Acetonitrile Acetonitrile; alternate [6] standard for nonwastewaters only	75–05–8 75–05–8	5.6 NA	CMBST 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

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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
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
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 Pentachlorophenol	91–20–3 87–86–5	0.059 0.089	5.6 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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [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
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	108–94–1	0.36	CMBST
		Cyclohexanone; alternate [6] standard for nonwastewaters only	108–94–1	NA	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	53–19–0	0.023	0.087

		p,p′-DDD	72–54–8	0.023	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 trans-1,4-Dichloro-2-butene	1476–11–5 764–41–0	(WETOX or CHOXD) fb CARBN; or CMBST (WETOX or CHOXD) fb CARBN; or CMBST	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

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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
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
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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg 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
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)	7664–39–3	35	ADGAS fb NEUTR; or NEUTR
U135	Hydrogen Sulfide	Hydrogen Sulfide	7783–06–4	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or 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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
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-cd)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
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

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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
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
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

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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
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
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
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

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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
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
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 [10]	Benomyl	17804–35–2	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U278	Bendiocarb [10]	Bendiocarb	22781–23–3	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U279	Carbaryl [10]	Carbaryl	63–25–2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
U280	Barban [10]	Barban	101–27–9	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
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; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U367	Carbofuran phenol [10]	Carbofuran phenol	1563–38–8	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U372	Carbendazim [10]	Carbendazim	10605–21–7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U373	Propham [10]	Propham	122–42–9	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U387	Prosulfocarb [10]	Prosulfocarb	52888–80–9	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U389	Triallate [10]	Triallate	2303–17–5	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U394	A2213 [10]	A2213	30558–43–1	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or 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 [3] in mg/L; or Technology Code [4]	Concentration [5] in mg/kg unless noted as "mg/L TCLP"; or Technology Code [4]
U395	Diethylene glycol, dicarbamate [10]	Diethylene glycol, dicarbamate	5952–26–1	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U404	Triethylamine [10]	Triethylamine	121–44–8	0.081; or CMBST, CHOXD, BIODG or CARBN	1.5; or CMBST
U409	Thiophanate-methyl [10]	Thiophanate-methyl	23564–05–8	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U410	Thiodicarb [10]	Thiodicarb	59669–26–0	0.019; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U411	Propoxur [10]	Propoxur	114–26–1	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST

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 [Reserved]

7 Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010C or 9012B, found in ''Test Methods' for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication SW–846, as incorporated by reference in 40 CFR 260.11, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.

8 These wastes, when rendered nonhazardous and then subsequently managed in CWA, or CWA-equivalent systems are not subject to treatment standards. (See § 268.1(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 at *www.govinfo.gov*.

§ 268.41 Treatment standards expressed as concentrations in waste extract.

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

[59 FR 48103, Sept. 19, 1994]

§ 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).
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.

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

Technology code	Description of technology-based standards
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, fluorides, or phosphates. The following reagents (or waste reagents) are typically used alone or in combination: (1) Lime (*i.e.*, containing oxides and/or hydroxides of calcium and/or magnesium; (2) caustic (*i.e.*, sodium 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.
VTD:	Vacuum thermal desorption of low-level radioactive hazardous mixed waste in units in compliance with all applicable radioactive protection requirements under control of the Nuclear Regulatory Commission.
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; 71 FR 40278, July 14, 2006; 73 FR 27767, May 14, 2008]

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

(d) After receiving a petition for variance from a treatment standard, the Administrator may request any additional information or samples which he may require to evaluate the petition. Additional copies of the complete petition may be requested as needed to send to affected states and Regional Offices.

(e) The Administrator will give public notice in the FEDERAL REGISTER of the intent to approve or deny a petition and provide an opportunity for public comment. The final decision on a variance from a treatment standard will be published in the FEDERAL REGISTER.

(f) A generator, treatment facility, or disposal facility that is managing a waste covered by a variance from the treatment standards must comply with the waste analysis requirements for restricted wastes found under § 268.7.

(g) During the petition review process, the applicant is required to comply with all restrictions on land disposal under this part once the effective date for the waste has been reached.

(h) Based on a petition filed by a generator or treater of hazardous waste, the Administrator or his or her delegated representative may approve a site-specific variance from an applicable treatment standard if:

(1) It is not physically possible to treat the waste to the level specified in the treatment standard, or by the method specified as the treatment standard. To show that this is the case, the petitioner must demonstrate that because the physical or chemical properties of the waste differ significantly from waste analyzed in developing the treatment standard, the waste cannot be treated to the specified level or by the specified method; or

(2) It is inappropriate to require the waste to be treated to the level specified in the treatment standard or by the method specified as the treatment standard, even though such treatment is technically possible. To show that this is the case, the petitioner must either demonstrate that:

(i) Treatment to the specified level or by the specified method is technically inappropriate (for example, resulting in combustion of large amounts of mildly contaminated environmental media 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
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

TABLE—WASTES EXCLUDED FROM THE TREATMENT STANDARDS UNDER § 268.40—Continued

Facility name [1] and address	Waste code	See also	Regulated hazardous constituent	Wastewaters		Nonwastewaters	
				Concentration (mg/l)	Notes	Concentration (mg/kg)	Notes
DuPont Environmental Treatment Chambers Works, Deepwater, NJ.	F039	Standards under § 268.40.	1,3-phenylenediamine 1,3-PDA.	NA	NA	CMBST; CHOXD fb BIODG or CARBN; or BIODG fb CARBN	([13])
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
Energy*Solutions* LLC, Clive, UT ([14]).	P- and U-listed hazardous waste requiring CMBST	Standards under 268.40.	NA	NA	NA	CMBST or VTD	NA
Guardian Industries Jefferson Hills, PA (6), (11), and (12).	D010 Standards under 268.40	Selenium	NA	NA	11 mg/L TCLP	NA	
Owens Brockway Glass Container Company, Vernon, CA [6].	D010	Standards under § 268.40.	Selenium	NA	NA	51 mg/L TCLP	([15])
Owens Brockway Glass Container Company, Vernon, CA [6].	D010	Standards under § 268.40.	Selenium	NA	NA	59 mg/L TCLP	([16])
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	
St. Gobain Containers, El Monte, CA [5 7].	D010	Standards under § 268.40.	Selenium	NA	NA	25 mg/L TCLP	NA

TABLE—WASTES EXCLUDED FROM THE TREATMENT STANDARDS UNDER § 268.40—Continued

Facility name [1] and address	Waste code	See also	Regulated hazardous constituent	Wastewaters		Nonwastewaters	
				Concentration (mg/l)	Notes	Concentration (mg/kg)	Notes
United States Department of Energy (Energy), Richland, WA [17].	F001–F005, D001–D011, D018, D019, D022, D028–D030, D033–D036, D038–D041, and D043 [18]	NA	For waste codes F001–F005, the constituents are limited to those associated with spent solvent activities at the Facility documented through process knowledge.. For constituents, as applicable, associated with D waste codes under the "Waste Code" column, see 40 CFR 268.40..	NA	NA	STABL [19] 20	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 9010C or 9012B, as incorporated by reference in § 260.11 of this chapter, sample size 10 grams, distillation time, 1 hour and 15 minutes.

(5)—Alternative D010 selenium standard only applies to dry scrubber solid from glass manufacturing wastes.

(6)—Alternative D010 selenium standard only applies to electrostatic precipitator dust generated during glass manufacturing operations.

[7] D010 wastes generated by this facility must be treated by Chemical Waste Management, Inc. at its Kettleman Hills facility in Kettleman City, California.

(8)—Dupont Environmental Treatment-Chambers Works must dispose of this waste in their on-site Subtitle C hazardous waste landfill.

(9)—This treatment standard applies only to K088-derived bag house dust, incinerator ash, and filtercake at this facility.

(10)—This treatment standard applies only to K088-derived air emission control dust generated by this facility.

(11)—D010 wastes generated by this facility may be treated by Heritage Environmental Services, LLC at their RCRA permitted treatment facility in Indianapolis, Indiana or by Chemical Waste Management, Chemical Services Inc. at their RCRA permitted treatment facility in Model City, New York.

(12)—D010 waste generated by this facility may be treated by Chemical Waste Management, Chemical Services, LLC. at their treatment facility in Model City, New York.

(13)—This treatment standard applies to 1,3-PDA in biosludge from treatment of F039.

(14)—This site-specific treatment variance applies only to solid treatment residue resulting from the vacuum thermal desorption (VTD) of P- and U-listed hazardous waste containing radioactive contamination ("mixed waste") at the Energy*Solutions*' LLC facility in Clive, Utah that otherwise requires CMBST as the LDR treatment standard. Once the P- and U-listed mixed waste are treated using VTD, the solid treatment residue can be land disposed at Energy*Solutions*' onsite RCRA permitted mixed waste landfill without further treatment. This treatment variance is conditioned on Energy*Solutions* complying with a Waste Family Demonstration Testing Plan specifically addressing the treatment of these P- and U-listed wastes, with this plan being implemented through a RCRA Part B permit modification for the VTD unit.

[15] This alternative standard applies only to D010 wastes generated by this facility and treated by Chemical Waste Management, Inc. at its Kettleman Hills facility in Kettleman City, California.

[16] This alternative standard applies only to D010 wastes generated by this facility and treated by U.S. Ecology Nevada at its facility in Beatty, Nevada. This alternative treatment standard is conditioned on the waste-to-reagent ratio not exceeding 1 to 0.45.

[17] The STABL treatment standard applies to the separated and pretreated tank waste under the 2,000-gallon TBI Demonstration.

[18] The waste codes included in this column are those identified on the current version of the Dangerous Waste Permit Application Part A form for the Hanford Double Shell Tank System, Rev. 04 (December 14, 2009), except for F039 which has not been accepted into the Double Shell Tanks.

[19] Sampling after treatment will be conducted at the treatment facility for the purpose of assessing the extent of treatment performance against the NWW numerical standards at 40 CFR 268.40 and, as applicable, at 40 CFR 268.48. Waste treated using STABL may not be land disposed until LDR constituents are below the non-wastewater numerical standards at 40 CFR 268.40 and 268.48.

[20] Treatment using the STABL treatment method shall be performed, and the treated waste shall be disposed of, at Energy*Solutions* in Clive, Utah, and/or Waste Control Specialists in Andrews County, Texas.

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; 67 FR 36818, May 28, 2002; 69 FR 6575, Feb. 11, 2004; 69 FR 67653, Nov. 19, 2004; 70 FR 34589, June 14, 2005; 70 FR 44511, Aug. 3, 2005; 71 FR 6212, Feb. 7, 2006; 71 FR 40279, July 14, 2006; 73 FR 27767, May 14, 2008; 77 FR 50626, Aug. 22, 2012; 89 FR 35009, May 1, 2024]

§ 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.

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

Technology description	Performance and/or design and operating standard	Contaminant restrictions [2]
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.
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.

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

Technology description	Performance and/or design and operating standard	Contaminant restrictions [2]
B. Destruction Technologies:		
1. *Biological Destruction (Biodegradation):* Removal of hazardous contaminants from debris surfaces and surface pores in an aqueous solution and biodegradation of organic or nonmetallic inorganic compounds (*i.e.*, inorganics that contain phosphorus, nitrogen, or sulfur) in units operated under either aerobic or anaerobic conditions.	*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 electrolytic oxidation utilizing the following oxidation reagents (or waste reagents) or combination of reagents—(1) hypochlorite (e.g., bleach); (2) chlorine; (3) chlorine dioxide; (4) ozone or UV (ultraviolet light) assisted ozone; (5) peroxides; (6) persulfates; (7) perchlorates; (8) permanganates; and/or (9) other oxidizing reagents of equivalent destruction efficiency.[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.
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.

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

Technology description	Performance and/or design and operating standard	Contaminant restrictions [2]
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; 71 FR 40279, July 14, 2006]

§ 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 [2] in mg/l	Concentration [3] in mg/kg 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
Aldrin	309–00–2	0.021	0.066
4-Aminobiphenyl	92–67–1	0.13	NA
Aniline	62–53–3	0.81	14
o-Anisidine (2-methoxyaniline)	90–04–0	0.010	0.66
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
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

UNIVERSAL TREATMENT STANDARDS—Continued

[Note: NA means not applicable]

Regulated constituent common name	CAS[1] number	Wastewater standard	Nonwastewater standard
		Concentration[2] in mg/l	Concentration[3] in mg/kg unless noted as "mg/l TCLP"
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
Butyl benzyl phthalate	85–68–7	0.017	28
2-sec-Butyl-4,6-dinitrophenol/Dinoseb	88–85–7	0.066	2.5
Carbon disulfide	75–15–0	3.8	4.8 mg/l TCLP
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	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
p-Cresidine	120–71–8	0.010	0.66
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	0.75 mg/l TCLP
o,p′-DDD	53–19–0	0.023	0.087

UNIVERSAL TREATMENT STANDARDS—Continued

[Note: NA means not applicable]

Regulated constituent common name	CAS [1] number	Wastewater standard	Nonwastewater standard
		Concentration [2] in mg/l	Concentration [3] in mg/kg unless noted as "mg/l TCLP"
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
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-Dimethylaniline (2,4-xylidine)	95–68–1	0.010	0.66
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

UNIVERSAL TREATMENT STANDARDS—Continued

[Note: NA means not applicable]

Regulated constituent common name	CAS [1] number	Wastewater standard	Nonwastewater standard
		Concentration [2] in mg/l	Concentration [3] in mg/kg unless noted as "mg/l TCLP"
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
Endosulfan I	959–98–8	0.023	0.066
Endosulfan II	33213–65–9	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 benzene	100–41–4	0.057	10
Ethyl cyanide/Propanenitrile	107–12–0	0.24	360
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
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)	67562–39–4	0.000035	.0025
1,2,3,4,7,8,9–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

UNIVERSAL TREATMENT STANDARDS—Continued

[Note: NA means not applicable]

Regulated constituent common name	CAS[1] number	Wastewater standard	Nonwastewater standard
		Concentration[2] in mg/l	Concentration[3] in mg/kg unless noted as "mg/l TCLP"
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
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
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
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

UNIVERSAL TREATMENT STANDARDS—Continued

[Note: NA means not applicable]

Regulated constituent common name	CAS [1] number	Wastewater standard	Nonwastewater standard
		Concentration [2] in mg/l	Concentration [3] in mg/kg unless noted as "mg/l TCLP"
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
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
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
1,3-Phenylenediamine Phorate	108–45–2 298–02–2	0.010 0.021	0.66 4.6
Phthalic acid	100–21–0	0.055	28
Phthalic anhydride	85–44–9	0.055	28
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
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
Toluene	108–88–3	0.080	10
Toxaphene	8001–35–2	0.0095	2.6
Tribromomethane/Bromoform	75–25–2	0.63	15
1,2,4-Trichlorobenzene	120–82–1	0.055	19

UNIVERSAL TREATMENT STANDARDS—Continued

[Note: NA means not applicable]

Regulated constituent common name	CAS [1] number	Wastewater standard	Nonwastewater standard
		Concentration [2] in mg/l	Concentration [3] in mg/kg unless noted as "mg/l TCLP"
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
tris-(2,3-Dibromopropyl) phosphate	126–72–7	0.11	0.10
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
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 9010C or 9012B, found in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication SW–846, as incorporated by reference in 40 CFR 260.11, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.

5 These constituents are not ''underlying hazardous constituents'' in characteristic wastes, according to the definition at § 268.2(i).

6 [Reserved]

7 This constituent is not an underlying hazardous constituent as defined at § 268.2(i) of this Part because its UTS level is greater than its TC level, thus a treatment selenium waste would always be characteristically hazardous, unless it is treated to below its characteristic level.

8 This standard is temporarily deferred for soil exhibiting a hazardous characteristic due to D004–D011 only.

[59 FR 48103, Sept. 19, 1994, as amended at 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; 70 FR 34590, June 14, 2005; 70 FR 9178, Feb. 24, 2005; 71 FR 40279, July 14, 2006; 75 FR 13008, Mar. 18, 2010; 76 FR 34156, June 13, 2011]

§ 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 fluoride, selenium, sulfides, vanadium, zinc, and that are present at concentrations greater than ten times the universal treatment standard. PCBs are not constituent subject to treatment in any given volume of soil which exhibits the toxicity characteristic solely because of the presence of metals.

(e) *Management of treatment residuals.* Treatment residuals from treating contaminated soil identified by paragraph (a) of this section as needing to comply with LDRs must be managed as follows:

(1) Soil residuals are subject to the treatment standards of this section;

(2) Non-soil residuals are subject to:

(A) For soils contaminated by listed hazardous waste, the RCRA Subtitle C standards applicable to the listed hazardous waste; and

(B) For soils that exhibit a characteristic of hazardous waste, if the non-soil residual also exhibits a characteristic of hazardous waste, the

treatment standards applicable to the characteristic hazardous waste.

[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; 71 FR 40279, July 14, 2006]

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 §§ 262.16 and 262.17 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 with:

(A) The words ''Hazardous Waste'';

(B) The applicable EPA hazardous waste number(s) (EPA hazardous waste codes) in subparts C and D of part 261 of this chapter; or use a nationally recognized electronic system, such as bar coding, to identify the EPA hazardous waste number(s);

(C) An indication of the hazards of the contents (examples include, but are not limited to, the applicable hazardous waste characteristic(s) (*i.e.*, ignitable, corrosive, reactive, toxic); hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E (labeling) or subpart F (placarding); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or a chemical hazard label consistent with the National Fire Protection Association code 704); and

(D) 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.

(4) A healthcare facility accumulates such wastes in containers on site solely for the purpose of the accumulation of such quantities of hazardous waste pharmaceuticals as necessary to facilitate proper recovery, treatment, or disposal and the healthcare facility complies with the applicable requirements in §§ 266.502 and 266.503 of this chapter.

(5) A reverse distributor accumulates such wastes in containers on site solely for the purpose of the accumulation of such quantities of hazardous waste pharmaceuticals as necessary to facilitate proper recovery, treatment, or disposal and the reverse distributor complies with § 266.510 of this chapter.

(b) An owner/operator of a treatment, storage or disposal facility may store such wastes for up to one year unless the Agency can demonstrate that such storage was not solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.

(c) An owner/operator of a treatment, storage or disposal facility may store such wastes beyond one year; however, the owner/operator bears the burden of proving that such storage was solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.

(d) If a generator's waste is exempt from a prohibition on the type of land disposal utilized for the waste (for example, because of an approved case-by-

case extension under §268.5, an approved §268.6 petition, or a national capacity variance under subpart C), the prohibition in paragraph (a) of this section does not apply during the period of such exemption.

(e) The prohibition in paragraph (a) of this section does not apply to hazardous wastes that meet the treatment standards specified under §§268.41, 268.42, 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 section 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; 71 FR 40279, July 14, 2006; 81 FR 85828, Nov. 28, 2016; 84 FR 5950, Feb. 22, 2019]

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.

Waste code/subcategory	Nonwastewaters	Wastewaters
D001 Ignitable Reactives based on 261.21(a)(2)	WTRRX	n.a.
	CHOXD	
	CHRED	
	STABL	
	INCIN	
D001 Ignitable Oxidizers based on 261.21(a)(4)	CHRED	CHRED
	INCIN	INCIN
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.

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
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.
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.

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
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.
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.

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
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.
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.

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
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.
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.

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
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.
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.

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
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.
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.

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
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.
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.

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
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.
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.

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
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.
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.

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
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.
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.
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.

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
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.
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.

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
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.
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; 71 FR 40279, July 14, 2006; 75 FR 78926, Dec. 17, 2010]

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.

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

Waste code	Waste category	Effective date
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.
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.
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.

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

Waste code	Waste category	Effective date
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.
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.

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

Waste code	Waste category	Effective date
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; 71 FR 40279, July 14, 2006]

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

NOTE: The EP (Method 1310B) 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.

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)

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.
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).

METAL BEARING WASTES PROHIBITED FROM DILUTION IN A COMBUSTION UNIT ACCORDING TO 40 CFR 268.3(c) [1]—Continued

Waste code	Waste description
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.

[1] A combustion unit is defined as any thermal technology subject to 40 CFR part 264, subpart O; Part 265, subpart O; and/or 266, subpart H.

[61 FR 15658, Apr. 8, 1996]

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

Subpart A—General Information

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