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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 148, 260, 261, 262, 264, 265, 268, 270 and 271

[FRL-4132-4]

RIN 2050-AD36

Land Disposal Restrictions for Newly Listed Wastes and Hazardous Debris

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is finalizing treatment standards under the land disposal restrictions (LDR) program for certain hazardous wastes listed after November 8, 1984, pursuant to a proposed consent decree filed with the District Court that established a promulgation date of June 1992 (EDF v. Reilly, Civ. No. 89-0598, D.D.C.). EPA is also finalizing revised treatment standards for debris contaminated with listed hazardous waste or debris that exhibits certain hazardous waste characteristics (hereinafter referred to as hazardous debris), and several revisions to previously promulgated standards and requirements. These actions are being taken as part of the RCRA Reform Initiative, and are expected to facilitate implementation of the LDR program.

EFFECTIVE DATES: This final rule is effective on June 30, 1992, except for §§ 148.17(a), 260.10, 261.3(c)(2)(ii)(C), 268.2, 268.5, 268.7, 268.9, 268.36(a), 268.40, 268.41, 268.42, 268.43, 268.45, 268.46, 268.50, 270.14, 270.42, 270.72, and 271.1, which are effective November 16, 1992; and §§ 262.34, 264.110, 264.111, 264.112, 264.140, 264.142, part 264 subpart DD, 265.110, 265.111, 265.112, 265.140, 265.142, 265.221, and part 265 subpart DD, which are effective February 18, 1993.

ADDRESSES: The official record for this rulemaking is identified as Docket Number F-92-CD2F-FFFFF, and is located in the EPA RCRA Docket, room 2427, 401 M Street SW., Washington, DC 20460. The docket is open from 9 a.m. to 4 p.m., Monday through Friday, except on Federal holidays. The public must make an appointment to review docket materials by calling (202) 260-9327. A maximum of 100 pages from the docket may be copied at no cost. Additional copies cost \$.15 per page.

FOR FURTHER INFORMATION CONTACT: For general information, contact the RCRA Hotline at (800) 424-9346 (toll free) or (703) 920-9810 locally. For information on treatment standards for newly listed wastes or hazardous debris, contact the Waste Treatment Branch, Office of Solid Waste (OS-322W), U.S. Environmental Protection Agency, 401 M St., SW., Washington, DC 20460, (703) 308-8434. For information on capacity determinations or national capacity variances, contact the Capacity Programs Branch, Office of Solid Waste (OS-321W), U.S. Environmental Protection Agency, DC 20460, (703) 308-8434.

>>>> Preamble has not been in included in this file. <<<<

For the reasons set out in the preamble, chapter I of title 40 of the Code of Federal Regulations is amended as follows:

PART 148-HAZARDOUS WASTE INJECTION RESTRICTIONS

1. The authority citation for part 148 continues to read as follows:

Authority: Section 3004, Resource Conservation and Recovery Act, 42 U.S.C. 6901 et. seq.

2. Section 148.17 is added to subpart B of part 148 to read as follows:

§ 148.17 Waste specific prohibitions; newly listed wastes.

(a) Effective November 9, 1992, the wastes specified in 40 CFR part 261 as EPA hazardous waste numbers F037, F038, K107, K108, K109, K110, K111, K112, K117, K118, K123, K124, K125, K126, K131, K136, U328, U353, and U359 are prohibited from underground injection.

(b) Effective June 30, 1995, the wastes specified in 40 CFR part 261 as EPA Hazardous waste numbers K117, K118, K131, and K132 are prohibited from underground injection.

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

(1) If the wastes meet or are treated to meet the applicable standards specified in subpart D of part 268; or

(2) If an exemption from a prohibition has been granted in response to a petition under subpart C of this part; or

(3) During the period of extension of the applicable effective date, if an extension has been granted under § 148.4 of this part.

PART 260-HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL

3. The authority citation for part 260 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921-6927, 6930, 6934, 6935, 6937, 6938, 6939, and 6974.

4. In § 260.10, a definition for "containment building" is added in alphabetical order and the definitions of "miscellaneous unit" and "pile" are revised to read as follows:

§ 260.10 Definitions.

* * * * *

"Containment building" means a hazardous waste management unit that is used to store or treat hazardous waste under the provisions of subpart DD of parts 264 or 265 of this chapter.

* * * * *

``Miscellaneous unit" means a hazardous waste management unit where hazardous waste is treated, stored, or disposed of and that is not a container, tank, surface impoundment, pile, land treatment unit, landfill, incinerator, boiler, industrial furnace, underground injection well with appropriate technical standards under 40 CFR part 146, containment building, or unit eligible for a research, development, and demonstration permit under § 270.65 of this chapter.

* * * * *

``Pile" means any non-containerized accumulation of solid, nonflowing hazardous waste that is used for treatment or storage and that is not a containment building.

* * * * *

PART 261-IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

5. The authority citation for part 261 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921, 6922, and 6938.

6. In § 261.3 paragraphs (a)(2)(iii) and (c)(2)(ii)(C) are revised and paragraph (f) is added to read as follows:

§ 261.3 Definition of hazardous waste.

(a) * * *

(2) * * *

(iii) It is a mixture of a solid waste and a hazardous waste that is listed in subpart D of this part solely because it exhibits one or more of the characteristics of hazardous waste identified in subpart C of this part, unless the resultant mixture no longer exhibits any characteristic of hazardous waste identified in subpart C of this part, or unless the solid waste is excluded from regulation under § 261.4(b)(7) and the resultant mixture no longer exhibits any characteristic of hazardous waste identified in subpart C of this part for which the hazardous waste listed in subpart D of this part was listed. (However, nonwastewater mixtures are still subject to the requirements of part 268 of this chapter, even if they no longer exhibit a characteristic at the point of land disposal).

* * * * * * (c) * * * (2) * * * (ii) * * *

(C)(1) Nonwastewater residues, such as slag, resulting from high temperature metals recovery (HTMR) processing of K061, K062 or F006 waste, in units identified as rotary kilns, flame reactors, electric furnaces, plasma arc furnaces, slag reactors, rotary hearth furnace/electric furnace combinations or industrial furnaces (as defined in paragraphs (6), (7), and (13) of the definition for "Industrial furnace" in 40 CFR 260.10), that are disposed in subtitle D units, provided that these residues meet the generic exclusion levels identified in the tables in this paragraph for all constituents, and exhibit no characteristics of hazardous waste. Testing requirements must be incorporated in a facility's waste analysis plan or a generator's self-implementing waste analysis plan; at a minimum, composite samples of residues must be collected and analyzed quarterly and/or when the process or operation generating the waste changes. Persons claiming this exclusion in an enforcement action will have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements.

Constituent	Maximum for any single composite sample- TCLP (mg/l)		
Generic exclusion levels for K061 a	nd K062 nonwastewater HTMR residues		
Antimony	0.10		
Arsenic	0.50		
Barium	7.6		
Beryllium	0.010		
Cadmium	0.050		
Chromium (total)	0.33		
Lead	0.15		
Mercury	0.009		
Nickel	1.0		

Selenium	0.16
Silver	0.30
Thallium	0.020
Zinc	70
Generic exclusion levels for F	006 nonwastewater HTMR residues
Antimony	0.10
Arsenic	0.50
Barium	7.6
Beryllium	0.010
Cadmium	0.050
Chromium (total)	0.33
Cyanide (total) (mg/kg)	1.8
Lead	0.15
Mercury	0.009
Nickel	1.0
Selenium	0.16
Silver	0.30
Thallium	0.020
Zinc	70

(2) A one-time notification and certification must be placed in the facility's files and sent to the EPA region or authorized state for K061, K062 or F006 HTMR residues that meet the generic exclusion levels for all constituents and do not exhibit any characteristics that are sent to subtitle D units. The notification and certification that is placed in the generators or treaters files must be updated if the process or operation generating the waste changes and/or if the subtitle D unit receiving the waste changes. However, the generator or treater need only notify the EPA region or an authorized state on an annual basis if such changes occur. Such notification and certification should be sent to the EPA region or authorized state by the end of the calendar year, but no later than December 31. The notification must include the following information: The name and address of the subtitle D unit receiving the waste shipments; the EPA Hazardous Waste Number(s) and treatability group(s) at the initial point of generation; and, the treatment standards applicable to the waste at the initial point of generation. The certification must be signed by an authorized representative and must state as follows: "I certify under penalty of law that the generic exclusion levels for all constituents have been met without impermissible dilution and that no characteristic of hazardous waste is exhibited. I am aware that there are significant penalties for submitting a false

certification, including the possibility of fine and imprisonment."

* * * * *

(f) Notwithstanding paragraphs (a) through (d) of this section and provided the debris as defined in part 268 of this chapter does not exhibit a characteristic identified at subpart C of this part, the following materials are not subject to regulation under 40 CFR parts 260, 261 to 266, 268, or 270:

(1) Hazardous debris as defined in part 268 of this chapter that has been treated using one of the required extraction or destruction technologies specified in Table 1 of § 268.45 of this chapter; persons claiming this exclusion in an enforcement action will have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements; or

(2) Debris as defined in part 268 of this chapter that the Regional Administrator, considering the extent of contamination, has determined is no longer contaminated with hazardous waste.

PART 262-STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE

8. The authority citation for part 262 continues to read as follows:

Authority: 42 U.S.C. 6906, 6912, 6922, 6923, 6924, 6925, and 6937.

9. In § 262.34, paragraph (a)(1)(iii) introductory text is amended by removing the semicolon at the end and replacing it with a colon, paragraph (a)(1)(iii)(B) and the concluding text of paragraph (a)(1) are revised, and paragraph (a)(1)(iv) is added to read as follows:

§ 262.34 Accumulation time.

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(a) * * *
(1) * * *
(iii) * * *
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(B) Documentation of each waste removal, including the quantity of waste removed from the drip pad and the sump or collection system and the date and time of removal; and/or

(iv) The waste is placed in containment buildings and the generator complies with subpart DD of 40 CFR part 265, has placed

its professional engineer certification that the building complies with the design standards specified in 40 CFR 265.1101 in the facility's operating record no later than 60 days after the date of initial operation of the unit. After February 18, 1993, PE certification will be required prior to operation of the unit. The owner or operator shall maintain the following records at the facility:

(A) A written description of procedures to ensure that each waste volume remains in the unit for no more than 90 days, a written description of the waste generation and management practices for the facility showing that they are consistent with respecting the 90 day limit, and documentation that the procedures are complied with; or

(B) Documentation that the unit is emptied at least once every 90 days.

In addition, such a generator is exempt from all the requirements in subparts G and H of 40 CFR part 265, except for §§ 265.111 and 265.114.

* * * * *

10. In § 262.34(a), the first paragraph designated (a)(2) and the undesignated paragraph following (a)(2)(ii) are removed.

PART 264-STANDARDS FOR OWNER AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

11. The authority citation for part 264 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6924, and 6925.

12. Section 264.110 is amended by removing the word "and" from the end of paragraph (b)(1), by adding a semicolon in place of the period at the end of paragraph (b)(2), by adding "; and" in place of the period at the end of paragraph (b)(3), and by adding a new paragraph (b)(4) to read as follows:

§ 264.110 Applicability.

* * * * *

(b) * * *

(4) Containment buildings that are required under § 264.1102 to meet the requirement for landfills.

13. Section 264.111 is amended by revising paragraph (c) to read as follows:

§ 264.111 Closure performance standard.

* * * * *

(c) Complies with the closure requirements of this subpart, including, but not limited to, the requirements of §§ 264.178, 264.197, 264.228, 264.258, 264.280, 264.310, 264.351, 264.601 through 264.603, and 264.1102.

14. Section 264.112 is amended by revising paragraph (a)(2) to read as follows:

§ 264.112 Closure plan; amendment of plan.

(a) * * *

(2) The Director's approval of the plan must ensure that the approved closure plan is consistent with §§ 264.111 through 264.115 and the applicable requirements of subpart F of this part, §§ 264.178, 264.197, 264.228, 264.258, 264.280, 264.310, 264.351, 264.601, and 264.1102. Until final closure is completed and certified in accordance with § 264.115, a copy of the approved plan and all approved revisions must be furnished to the Director upon request, including requests by mail.

* * * * *

15. Section 264.140 is amended by adding a semicolon in place of ", and" at the end of paragraph (b)(1), by adding a semicolon in place of the period at the end of paragraph (b)(2), by adding "; and" in place of the period at the end of paragraph (b)(3), and by adding a new paragraph (b)(4) to read as follows:

§ 264.140 Applicability.

* * *

(b) * * *

(4) Containment buildings that are required under § 264.1102 to meet the requirements for landfills.

* * * * *

16. Section 264.142 is amended by revising the introductory text of paragraph (a) to read as follows:

§ 264.142 Cost estimate for closure.

(a) The owner or operator must have a detailed written estimate, in current dollars, of the cost of closing the facility in accordance with the requirements in §§ 264.111 through 264.115 and applicable closure requirements in §§ 264.178, 264.197, 264.228, 264.258, 264.280, 264.310, 264.351, 264.601 through 264.603, and 264.1102.

* * * * *

17. Subpart DD is added to part 264 to read as follows:

Subpart DD-Containment Buildings

Sec.
264.1100 Applicability.
264.1101 Design and operating standards.
264.1102 Closure and post-closure care.
264.1103-264.1110 [Reserved]

Subpart DD-Containment Buildings

§ 264.1100 Applicability.

The requirements of this subpart apply to owners or operators who store or treat hazardous waste in units designed and operated under § 264.1101 of this subpart. These provisions will become effective on February 18, 1993, although owner or operator may notify the Regional Administrator of his intent to be bound by this subpart at an earlier time. The owner or operator is not subject to the definition of land disposal in RCRA section 3004(k) provided that the unit:

(a) Is a completely enclosed, self-supporting structure that is designed and constructed of manmade materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit, and to prevent failure due to pressure gradients, settlement, compression, or uplift, physical contact with the hazardous wastes to which they are exposed; climatic conditions; and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls;

(b) Has a primary barrier that is designed to be sufficiently durable to withstand the movement of personnel, wastes, and handling equipment within the unit;

(c) If the unit is used to manage liquids, has:

(1) A primary barrier designed and constructed of materials to prevent migration of hazardous constituents into the barrier;

(2) A liquid collection system designed and constructed of materials to minimize the accumulation of liquid on the primary barrier; and

(3) A secondary containment system designed and constructed of materials to prevent migration of hazardous constituents into the barrier, with a leak detection and liquid collection system capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest practicable time, unless the unit has been granted a variance from the secondary containment system requirements under § 264.1101(b)(4);

(d) Has controls sufficient to prevent fugitive dust emissions to meet the no visible emission standard in § 264.1101(c)(1)(iv); and

(e) Is designed and operated to ensure containment and prevent the tracking of materials from the unit by personnel or equipment.

§ 264.1101 Design and operating standards.

(a) All containment buildings must comply with the following design standards:

(1) The containment building must be completely enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation, wind, run-on), and to assure containment of managed wastes.

(2) The floor and containment walls of the unit, including the secondary containment system if required under paragraph (b) of this section, must be designed and constructed of materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit, and to prevent failure due to pressure gradients, settlement, compression, or uplift, physical contact with the hazardous wastes to which they are exposed; climatic conditions; and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls. The unit must be designed so that it has sufficient structural strength to prevent collapse or other failure. All surfaces to be in contact with hazardous wastes must be chemically compatible with those wastes. EPA will consider standards established by professional organizations generally recognized by the industry such as the American Concrete Institute (ACI) and the American Society of Testing

Materials (ASTM) in judging the structural integrity requirements of this paragraph. If appropriate to the nature of the waste management operation to take place in the unit, an exception to the structural strength requirement may be made for light-weight doors and windows that meet these criteria:

(i) They provide an effective barrier against fugitive dust emissions under paragraph (c)(1)(iv); and

(ii) The unit is designed and operated in a fashion that assures that wastes will not actually come in contact with these openings.

(3) Incompatible hazardous wastes or treatment reagents must not be placed in the unit or its secondary containment system if they could cause the unit or secondary containment system to leak, corrode, or otherwise fail.

(4) A containment building must have a primary barrier designed to withstand the movement of personnel, waste, and handling equipment in the unit during the operating life of the unit and appropriate for the physical and chemical characteristics of the waste to be managed.

(b) For a containment building used to manage hazardous wastes containing free liquids or treated with free liquids (the presence of which is determined by the paint filter test, a visual examination, or other appropriate means), the owner or operator must include:

(1) A primary barrier designed and constructed of materials to prevent the migration of hazardous constituents into the barrier (e.g., a geomembrane covered by a concrete wear surface).

(2) A liquid collection and removal system to minimize the accumulation of liquid on the primary barrier of the containment building:

(i) The primary barrier must be sloped to drain liquids to the associated collection system; and

(ii) Liquids and waste must be collected and removed to minimize hydraulic head on the containment system at the earliest practicable time.

(3) A secondary containment system including a secondary barrier designed and constructed to prevent migration of hazardous constituents into the barrier, and a leak detection system that is capable of detecting failure of the primary barrier and collecting accumulated hazardous wastes and liquids at the earliest practicable time.

(i) The requirements of the leak detection component of the secondary containment system are satisfied by installation of a system that is, at a minimum:

(A) Constructed with a bottom slope of 1 percent or more; and

(B) Constructed of a granular drainage material with a hydraulic conductivity of 1 X 10^{-2} cm/sec or more and a thickness of 12 inches (30.5 cm) or more, or constructed of synthetic or geonet drainage materials with a transmissivity of 3 X 10^{-5} m²/sec or more.

(ii) If treatment is to be conducted in the building, an area in which such treatment will be conducted must be designed to prevent the release of liquids, wet materials, or liquid aerosols to other portions of the building.

(iii) The secondary containment system must be constructed of materials that are chemically resistant to the waste and liquids managed in the containment building and of sufficient strength and thickness to prevent collapse under the pressure exerted by overlaying materials and by any equipment used in the containment building. (Containment buildings can serve as secondary containment systems for tanks placed within the building under certain conditions. A containment building can serve as an external liner system for a tank, provided it meets the requirements of § 264.193(d)(1). In addition, the containment building must meet the requirements of § 264.193(b) and §§ 264.193(c) (1) and (2) to be considered an acceptable secondary containment system for a tank.)

(4) For existing units other than 90-day generator units, the Regional Administrator may delay the secondary containment requirement for up to two years, based on a demonstration by the owner or operator that the unit substantially meets the standards of this subpart. In making this demonstration, the owner or operator must:

(i) Provide written notice to the Regional Administrator of their request by November 16, 1992. This notification must describe the unit and its operating practices with specific reference to the performance of existing containment systems, and specific plans for retrofitting the unit with secondary containment; (ii) Respond to any comments from the Regional Administrator on these plans within 30 days; and

(iii) Fulfill the terms of the revised plans, if such plans are approved by the Regional Administrator.

(c) Owners or operators of all containment buildings must:

(1) Use controls and practices to ensure containment of the hazardous waste within the unit; and, at a minimum:

(i) Maintain the primary barrier to be free of significant cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be released from the primary barrier;

(ii) Maintain the level of the stored/treated hazardous waste within the containment walls of the unit so that the height of any containment wall is not exceeded;

(iii) Take measures to prevent the tracking of hazardous waste out of the unit by personnel or by equipment used in handling the waste. An area must be designated to decontaminate equipment and any rinsate must be collected and properly managed; and

(iv) Take measures to control fugitive dust emissions such that any openings (doors, windows, vents, cracks, etc.) exhibit no visible emissions (see 40 CFR part 60, appendix A, Method 22-Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares). In addition, all associated particulate collection devices (e.g., fabric filter, electrostatic precipitator) must be operated and maintained with sound air pollution control practices (see 40 CFR part 60 subpart 292 for guidance). This state of no visible emissions must be maintained effectively at all times during routine operating and maintenance conditions, including when vehicles and personnel are entering and exiting the unit.

(2) Obtain certification by a qualified registered professional engineer that the containment building design meets the requirements of paragraphs (a) through (c) of this section. For units placed into operation prior to February 18, 1993, this certification must be placed in the facility's operating record (on-site files for generators who are not formally required to have operating records) no later than 60 days after the date of initial operation of the unit. After February 18, 1993, PE certification will be required prior to operation of the unit.

(3) Throughout the active life of the containment building, if the owner or operator detects a condition that could lead to

or has caused a release of hazardous waste, must repair the condition promptly, in accordance with the following procedures.

(i) Upon detection of a condition that has lead to a release of hazardous waste (e.g., upon detection of leakage from the primary barrier) the owner or operator must:

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

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

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

(D) 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.

(ii) 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 the owner or operator of the determination and the underlying rationale in writing.

(iii) Upon completing all repairs and cleanup the owner or operator 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 (c)(3)(i)(D) of this section.

(4) Inspect and record in the facility's operating record, at least once every seven days, data gathered from monitoring equipment and leak detection equipment as well as the containment building and the area immediately surrounding the containment building to detect signs of releases of hazardous waste.

(d) For containment buildings that contain areas both with and without secondary containment, the owner or operator must:

(1) Design and operate each area in accordance with the requirements enumerated in paragraphs (a) through (c) of this section;

(2) Take measures to prevent the release of liquids or wet materials into areas without secondary containment; and

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

(e) Notwithstanding any other provision of this subpart the Regional Administrator may waive requirements for secondary containment for a permitted containment building where the owner operator demonstrates that the only free liquids in the unit are limited amounts of dust suppression liquids required to meet occupational health and safety requirements, and where containment of managed wastes and liquids can be assured without a secondary containment system.

§ 264.1102 Closure and post-closure care.

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

(b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in paragraph (a) of this section, the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he must close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills (§ 264.310). In addition, for the purposes of closure, post-closure, and financial responsibility, such a containment building is then considered to be a landfill, and the owner or operator must meet all of the requirements for landfills specified in subparts G and H of this part.

§ 264.1103-264.1110 [Reserved]

PART 265-INTERIM STATUS STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

18. The authority citation for part 265 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6924, 6925, 6935, and 6936.

19. Section 265.110 is amended by removing the word "and" from the end of paragraphs (b)(1) and (b)(2), by adding "; and" in place of the period at the end of paragraph (b)(3), and by adding a new paragraph (b)(4) to read as follows:

§ 265.110 Applicability.

* * * * *

(b) * * *

(4) Containment building that are required under § 265.1102 to meet the requirement for landfills.

20. Section 265.111 is amended by revising paragraph (c) to read as follows:

§ 265.111 Closure performance standard.

* * * * *

(c) Complies with the closure requirements of this subpart, including, but not limited to, the requirements of §§ 265.197, 265.228, 265.258, 265.280, 265.310, 265.351, 265.381, 265.404, and 264.1102.

21. In § 265.112 (d)(4), the last two sentences are revised to read as follows:

§ 265.112 Closure plan; amendment of plan.

* * * * *

(d) * * *

(4) * * * The Regional Administrator must assure that the approved plan is consistent with §§ with 265.111 through 265.115 and the applicable requirements of subpart F of this part, §§ 265.197, 265.228, 265.258, 265.280, 265.310, 265.351, 265.381, 265.404, and 264.1102. A copy of the modified plan with a detailed statement of reasons for the modifications must be mailed to the owner or operator.

* * * * *

22. Section 265.140 is amended by revising paragraph (b) to read as follows:

§ 265.140 Applicability.

(b) The requirements of §§ 265.144 and 265.146 apply only to owners and operators of:

(1) Disposal facilities;

(2) Tank systems that are required under § 264.197 of this chapter to meet the requirements for landfills; and

(3) Containment buildings that are required under § 265.1102 to meet the requirements for landfills.

* * * * *

23. Section 265.142 is amended by revising the introductory text of paragraph (a) to read as follows:

§ 265.142 Cost estimate for closure.

(a) The owner or operator must have a detailed written estimate, in current dollars, of the cost of closing the facility in accordance with the requirements in §§ 265.111 through 265.115 and applicable closure requirements in §§ 265.178, 265.197, 265.228, 265.258, 265.280, 265.310, 265.351, 265.381, 265.404, and 265.1102

* * * * *

24. In § 265.221, a new paragraph (h) is added to read as follows:

§ 265.221 Design and operating requirements.

* * * * *

(h) Surface impoundments that are newly subject to RCRA section 3005(j)(1) due to the promulgation of additional listings or characteristics for the identification of hazardous waste must be in compliance with paragraphs (a), (c) and (d) of this section not later than 48 months after the promulgation of the additional listing or characteristic. This compliance period shall not be cut short as the result of the promulgation of land disposal prohibitions under part 268 of this chapter or the granting of an extension to the effective date of a prohibition pursuant to § 268.5 of this chapter, within this 48-month period. 25. Subpart CC is added and reserved and subpart DD is added to part 265 to read as follows:

Subpart DD-Containment Buildings

Sec. 265.1100 Applicability. 265.1101 Design and operating standards. 265.1102 Closure and post-closure care. 265.1103-265.1110 [Reserved]

Subpart DD-Containment Buildings

§ 265.1100 Applicability.

The requirements of this subpart apply to owners or operators who store or treat hazardous waste in units designed and operated under § 265.1101 of this subpart. These provisions will become effective on February 18, 1993, although the owner or operator may notify the Regional Administrator of his intent to be bound by this subpart at an earlier time. The owner or operator is not subject to the definition of land disposal in RCRA section 3004(k) provided that the unit:

(a) Is a completely enclosed, self-supporting structure that is designed and constructed of manmade materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the units, and to prevent failure due to pressure gradients, settlement, compression, or uplift, physical contact with the hazardous wastes to which they are exposed; climatic conditions; and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls;

(b) Has a primary barrier that is designed to be sufficiently durable to withstand the movement of personnel and handling equipment within the unit;

(c) If the unit is used to manage liquids, has:

(1) A primary barrier designed and constructed of materials to prevent migration of hazardous constituents into the barrier;

(2) A liquid collection system designed and constructed of materials to minimize the accumulation of liquid on the primary barrier; and

(3) A secondary containment system designed and constructed of materials to prevent migration of hazardous constituents into

the barrier, with a leak detection and liquid collection system capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest possible time, unless the unit has been granted a variance from the secondary containment system requirements under § 265.1101(b)(4);

(d) Has controls as needed to permit fugitive dust emissions; and

(e) Is designed and operated to ensure containment and prevent the tracking of materials from the unit by personnel or equipment.

§ 265.1101 Design and operating standards.

(a) All containment buildings must comply with the following design standards:

(1) The containment building must be completely enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation, wind, run-on), and to assure containment of managed wastes.

(2) The floor and containment walls of the unit, including the secondary containment system if required under paragraph (b) of this section, must be designed and constructed of materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit, and to prevent failure due to pressure gradients, settlement, compression, or uplift, physical contact with the hazardous wastes to which they are exposed; climatic conditions; and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls. The unit must be designed so that it has sufficient structural strength to prevent collapse or other failure. All surfaces to be in contact with hazardous wastes must be chemically compatible with those wastes. EPA will consider standards established by professional organizations generally recognized by the industry such as the American Concrete Institute (ACI) and the American Society of Testing Materials (ASTM) in judging the structural integrity requirements of this paragraph. If appropriate to the nature of the waste management operation to take place in the unit, an exception to the structural strength requirement may be made for light-weight doors and windows that meet these criteria:

(i) They provide an effective barrier against fugitive dust emissions under paragraph (c)(1)(iv); and

(ii) The unit is designed and operated in a fashion that assures that wastes will not actually come in contact with these openings.

(3) Incompatible hazardous wastes or treatment reagents must not be placed in the unit or its secondary containment system if they could cause the unit or secondary containment system to leak, corrode, or otherwise fail.

(4) A containment building must have a primary barrier designed to withstand the movement of personnel, waste, and handling equipment in the unit during the operating life of the unit and appropriate for the physical and chemical characteristics of the waste to be managed.

(b) For a containment building used to manage hazardous wastes containing free liquids or treated with free liquids (the presence of which is determined by the paint filter test, a visual examination, or other appropriate means), the owner or operator must include:

(1) A primary barrier designed and constructed of materials to prevent the migration of hazardous constituents into the barrier (e.g. a geomembrane covered by a concrete wear surface).

(2) A liquid collection and removal system to prevent the accumulation of liquid on the primary barrier of the containment building:

(i) The primary barrier must be sloped to drain liquids to the associated collection system; and

(ii) Liquids and waste must be collected and removed to minimize hydraulic head on the containment system at the earliest practicable time that protects human health and the environment.

(3) A secondary containment system including a secondary barrier designed and constructed to prevent migration of hazardous constituents into the barrier, and a leak detection system that is capable of detecting failure of the primary barrier and collecting accumulated hazardous wastes and liquids at the earliest practicable time.

(i) The requirements of the leak detection component of the secondary containment system are satisfied by installation of a system that is, at a minimum:

(A) Constructed with a bottom slope of 1 percent or more; and

(B) Constructed of a granular drainage material with a hydraulic conductivity of 1×10^{-2} cm/sec or more and a thickness of 12 inches (30.5 cm) or more, or constructed of synthetic or geonet drainage materials with a transmissivity of 3×10^{-5} m²/sec or more.

(ii) If treatment is to be conducted in the building, an area in which such treatment will be conducted must be designed to prevent the release of liquids, wet materials, or liquid aerosols to other portions of the building.

(iii) The secondary containment system must be constructed of materials that are chemically resistant to the waste and liquids managed in the containment building and of sufficient strength and thickness to prevent collapse under the pressure exerted by overlaying materials and by any equipment used in the containment building. (Containment buildings can serve as secondary containment systems for tanks placed within the building under certain conditions. A containment building can serve as an external liner system for a tank, provided it meets the requirements of § 265.193(d)(1). In addition, the containment building must meet the requirements of § 265.193 (b) and (c) to be considered an acceptable secondary containment system for a tank.)

(4) For existing units other than 90-day generator units, the Regional Administrator may delay the secondary containment requirement for up to two years, based on a demonstration by the owner or operator that the unit substantially meets the standards of this Subpart. In making this demonstration, the owner or operator must:

(i) Provide written notice to the Regional Administrator of their request by February 18, 1993. This notification must describe the unit and its operating practices with specific reference to the performance of existing containment systems, and specific plans for retrofitting the unit with secondary containment;

(ii) Respond to any comments from the Regional Administrator on these plans within 30 days; and

(iii) Fulfill the terms of the revised plans, if such plans are approved by the Regional Administrator.

(c) Owners or operators of all containment buildings must:

(1) Use controls and practices to ensure containment of the hazardous waste within the unit; and, at a minimum:

(i) Maintain the primary barrier to be free of significant cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be released from the primary barrier;

(ii) Maintain the level of the stored/treated hazardous waste within the containment walls of the unit so that the height of any containment wall is not exceeded;

(iii) Take measures to prevent the tracking of hazardous waste out of the unit by personnel or by equipment used in handling the waste. An area must be designated to decontaminate equipment and any rinsate must be collected and properly managed; and

(iv) Take measures to control fugitive dust emissions such that any openings (doors, windows, vents, cracks, etc.) exhibit no visible emissions. In addition, all associated particulate collection devices (e.g., fabric filter, electrostatic precipitator) must be operated and maintained with sound air pollution control practices. This state of no visible emissions must be maintained effectively at all times during normal operating conditions, including when vehicles and personnel are entering and exiting the unit.

(2) Obtain certification by a qualified registered professional engineer that the containment building design meets the requirements of paragraphs (a) through (c) of this section. For units placed into operation prior to February 18, 1993, this certification must be placed in the facility's operating record (on-site files for generators who are not formally required to have operating records) no later than 60 days after the date of initial operation of the unit. After February 18, 1993, PE certification will be required prior to operation of the unit.

(3) Throughout the active life of the containment building, if the owner or operator detects a condition that could lead to or has caused a release of hazardous waste, must repair the condition promptly, in accordance with the following procedures.

(i) Upon detection of a condition that has led to a release of hazardous waste (e.g., upon detection of leakage from the primary barrier) the owner or operator must:

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

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

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

(D) 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.

(ii) 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 the owner or operator of the determination and the underlying rationale in writing.

(iii) Upon completing all repairs and cleanup the owner or operator 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 (c)(3)(i)(D) of this section.

(4) Inspect and record in the facility's operating record, at least once every seven days, data gathered from monitoring equipment and leak detection equipment as well as the containment building and the area immediately surrounding the containment building to detect signs of releases of hazardous waste.

(d) For containment building that contains both areas with and without secondary containment, the owner or operator must:

(1) Design and operate each area in accordance with the requirements enumerated in paragraphs (a) through (c) of this section;

(2) Take measures to prevent the release of liquids or wet materials into areas without secondary containment; and

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

(e) Notwithstanding any other provision of this subpart, the Regional Administrator may waive requirements for secondary containment for a permitted containment building where the owner or operator demonstrates that the only free liquids in the unit are limited amounts of dust suppression liquids required to meet occupational health and safety requirements, and where containment of managed wastes and liquids can be assured without a secondary containment system.

§ 265.1102 Closure and post-closure care.

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

(b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in paragraph (a) of this section, the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he must close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills (§ 265.310). In addition, for the purposes of closure, post-closure, and financial responsibility, such a containment building is then considered to be a landfill, and the owner or operator must meet all of the requirements for landfills specified in subparts G and H of this part.

§§ 265.1103-265.1110 [Reserved]

PART 268-LAND DISPOSAL RESTRICTIONS

26. The authority citation for part 268 continues to read as follows:

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

27. In § 268.2 paragraph (g) is revised and paragraph (h) added to read as follows:

§ 268.2 Definitions applicable in this part.

* * * * *

(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; 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.

28. Section 268.5 is amended by adding "; or" in place of the semicolon at the end of paragraph (h)(2)(ii), by redesignating paragraph (h)(2)(v) as paragraph (h)(2)(vi), by revising paragraph (h)(2)(iv) and by adding new paragraph (h)(2)(v) to read as follows:

§ 268.5 Procedures for case-by-case extensions to an effective date.

* * * * *

(h) * * *

(2) * * *

(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

* * * * *

29. Section 268.7 is amended by revising paragraphs (a)(1)(iii), (a)(1)(iv), (a)(2) introductory text, (a)(3)(iv), (a)(3)(v), (a)(4) introductory text, (b)(4) introductory text, and (b)(5) introductory text, and by adding paragraphs (a)(1)(v), (a)(3)(vi), and (d) to read as follows:

§ 268.7 Waste analysis and recordkeeping.

(a) * * *

(1) * * *

(iii) The manifest number associated with the shipment of waste;

(iv) For hazardous debris, the contaminants subject to treatment as provided by § 268.45(b) and the following statement: "This hazardous debris is subject to the alternative treatment standards of 40 CFR 268.45"; and

(v) Waste analysis data, where available.

(2) If a generator determines that he is managing a restricted waste under this Part, and determines that the waste can be land disposed without further treatment, with each shipment of waste he must submit, to the treatment, storage, or land disposal facility, a notice and a certification stating that the waste meets the applicable treatment standards set forth in subpart D of this part and the applicable prohibition levels set forth in § 268.32 or RCRA section 3004(d). Generators of hazardous debris that is excluded from the definition of hazardous waste under § 261.3(e)(2) of this chapter (i.e., debris that the Director has determined does not contain hazardous waste), however, are not subject to these notification and certification requirements.

* * * * *

(3) * * *

(iv) Waste analysis data, where available;

(v) For hazardous debris, the contaminants subject to treatment as provided by § 268.45(b) and the following statement: "This hazardous debris is subject to the alternative treatment standards of 40 CFR 268.45"; and

(vi) The date the waste is subject to the prohibitions.

(4) If a generator is managing prohibited waste in tanks, containers, or containment buildings regulated under 40 CFR 262.34, and is treating such waste in such tanks, containers, or containment buildings to meet applicable treatment standards under subpart D of this part, the generator must develop and follow a written waste analysis plan which describes the procedures the generator will carry out to comply with the treatment standards. (Generators treating hazardous debris under the alternative treatment standards of Table 1, § 268.45, however, are not subject to these waste analysis requirements.) The plan must be kept on site in the generator's records, and the following requirements must be met:

* * * *

(b) * * *

(4) A notice must be sent with each waste shipment to the land disposal facility which includes the following information, except that debris excluded from the definition of hazardous waste under § 261.3(e) of this chapter (i.e., debris treated by an extraction or destruction technology provided by Table 1, § 268.45, and debris that the Director has determined does not contain hazardous waste) is subject to the notification and certification requirements of paragraph (d) of this section rather than these notification requirements:

* * * * *

(5) The treatment facility must submit a certification with each shipment of waste or treatment residue of a restricted waste to the land disposal facility stating that the waste or treatment residue has been treated in compliance with the applicable performance standards specified in subpart D of this part and the applicable prohibitions set forth in § 268.32 or RCRA section 3004(d). Debris excluded from the definition of hazardous waste under § 261.3(e) of this chapter (i.e., debris treated by an extraction or destruction technology provided by Table 1, § 268.45, and debris that the Director has determined does not contain hazardous waste), however, is subject to the notification and certification requirements of paragraph (d) of this section rather than the certification requirements of this paragraph (b)(5). * * * * *

(d) Generators or treaters who first claim that hazardous debris is excluded from the definition of hazardous waste under § 261.3(e) of this chapter (i.e., debris treated by an extraction or destruction technology provided by Table 1, § 268.45, and debris that the Director has determined does not contain hazardous waste) are subject to the following notification and certification requirements:

(1) A one-time notification must be submitted to the Director or authorized State including the following information:

(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(e)(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(e)(1) of this chapter, if a different type of debris is treated or if a different technology is used to treat the debris.

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

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

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

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

30. In § 268.9, paragraph (d) is revised to read as follows:

§ 268.9 Special rules regarding wastes that exhibit a characteristic.

* * * * *

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

(1) The notification must include the following information:

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

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

(iii) The treatment standards applicable to the waste at the point of generation.

(2) The certification must be signed by an authorized representative and must state the language found in § 268.7(b)(5).

31. Section 268.14 is added to subpart B of part 268 to read as follows:

§ 268.14 Surface impoundment exemptions.

(a) This section defines additional circumstances under which an otherwise prohibited waste may continue to be placed in a surface impoundment.

(b) Wastes which are newly identified or listed under section 3001 after November 8, 1984, and stored in a surface

impoundment that is newly subject to subtitle C of RCRA as a result of the additional identification or listing, may continue to be stored in the surface impoundment for 48 months after the promulgation of the additional listing or characteristic, not withstanding that the waste is otherwise prohibited from land disposal, provided that the surface impoundment is in compliance with the requirements of subpart F of part 265 of this chapter within 12 months after promulgation of the new listing or characteristic.

(c) Wastes which are newly identified or listed under section 3001 after November 8, 1984, and treated in a surface impoundment that is newly subject to subtitle C of RCRA as a result of the additional identification or listing, may continue to be treated in that surface impoundment, not withstanding that the waste is otherwise prohibited from land disposal, provided that surface impoundment is in compliance with the requirements of subpart F of part 265 of this chapter within 12 months after the promulgation of the new listing or characteristic. In addition, if the surface impoundment continues to treat hazardous waste after 48 months from promulgation of the additional listing or characteristic, it must then be in compliance with § 268.4.

32. Section 268.36 is added to subpart C of part 268 to read as follows:

§ 268.36 Waste specific prohibitions-newly listed wastes.

(a) Effective November 9, 1992, the wastes specified in 40 CFR 261.32 as EPA Hazardous Waste Numbers K107, K108, K109, K110, K111, K112, K117, K118, K123, K124, K125, K126, K131, K132, and K136; and the wastes specified in 40 CFR 261.33(f) as EPA Hazardous Waste numbers U328, U353, and U359 are prohibited from land disposal.

(b) Effective June 30, 1993, the wastes specified in 40 CFR 261.31 as EPA Hazardous Waste Numbers F037 and F038 that are not generated from surface impoundment cleanouts or closures are prohibited from land disposal.

(c) Effective June 30, 1994, the wastes specified in 40 CFR 261.31 as EPA Hazardous Waste Numbers F037 and F038 that are generated from surface impoundment cleanouts or closures are prohibited from land disposal.

(d) Effective June 30, 1994, radioactive wastes that are mixed with hazardous wastes specified in 40 CFR 261.31 as EPA Hazardous Waste Numbers F037 and F038; the wastes specified in 40 CFR 261.32 as EPA Hazardous Waste Numbers K107, K108, K109, K110, K111, K112, K117, K118, K123, K124, K125, K126 K131, K132, and

K136; or the wastes specified in 40 CFR 261.33(f) as EPA Hazardous Waste Numbers U328, U353, and U359 are prohibited from land disposal.

(e) Effective June 30, 1994, debris contaminated with hazardous wastes specified in 40 CFR 261.31 as EPA Hazardous Waste Numbers F037 and F038; the wastes specified in 40 CFR 261.32 as EPA Hazardous Waste Numbers K107, K108, K109, K110, K111, K112, K117, K118, K123, K124, K125, K126 K131, K132, and K136; or the wastes specified in 40 CFR 261.33(f) as EPA Hazardous Waste Numbers U328, U353, and U359; and which is not contaminated with any other waste already subject to a prohibition are prohibited from land disposal.

(f) Between June 30, 1992 and June 30, 1993, the wastes included in paragraph (b) of this section may be disposed of in a landfill, only if such unit is in compliance with the requirements specified in § 268.5(h)(2), and may be generated in and disposed of in a surface impoundment only if such unit is in compliance with either § 268.5(h)(2) or § 268.14.

(g) Between June 30, 1992 and June 30, 1994, the wastes included in paragraphs (d) and (e) of this section may be disposed of in a landfill only if such unit is in compliance with the requirements specified in § 268.5(h)(2), and may be generated in and disposed of in a surface impoundment only if such unit is in compliance with either § 268.5(h)(2) or § 268.14.

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

(1) The wastes meet the applicable 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 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 the wastes covered by the extension.

(i) To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in §§ 268.41 and 268.43, the initial generator must test a representative 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 levels in subpart D of this part, the waste is prohibited from land disposal, and all requirements of part 268 are applicable, except as otherwise specified.

33. In § 268.40, paragraph (b) is revised and paragraph (d) is added to read as follows:

§ 268.40 Applicability of treatment standards.

* * * *

(b) A restricted waste for which a treatment technology is specified under § 268.42(a) or hazardous debris for which a treatment technology is specified under § 268.45 may be land disposed after it is treated using that specified technology or an equivalent treatment method approved by the Administrator under the procedures set forth in § 268.42(b).

* * * * *

(d) If a treatment standard has been established in §§ 268.41 through 268.43 for a hazardous waste that is itself hazardous debris, the waste is subject to those standards rather than the standards for hazardous debris under § 268.45.

34. In § 268.41, paragraph (a) text preceding table is revised, and Table CCWE is amended by revising the entry for "F001-F005 spent solvents," by removing the entries for "K061 (Low Zinc Subcategory-less than 15% Total Zinc)" and "K061 (High Zinc Subcategory-greater than 15% Total Zinc)-Effective until August 7, 1991, by adding entries for "F037", "F038", and "K061", and by adding paragraph (c) to read as follows:

§ 268.41 Treatment standards expressed as concentrations in waste extract.

(a) Table CCWE identifies the restricted wastes and the concentrations of their associated constituents which may not be exceeded in the extract of a waste or waste treatment residual extracted using the test method in appendix I of this part for the allowable land disposal of such wastes. Compliance with these concentrations is required based upon grab samples.

268.41 Table CCWE.-Constituent Concentrations in Waste Extract

Wastewaters Nonwastewaters

Waste code	Commercial chemical name	See also	Regulated hazardous constituent	CAS No. for regulated hazardous constituen t	Concentrati on (mg/l) Notes	Concentra- tion (mg/l) Notes
*	*	*	*	*	*	*
F001-F005 spent solvents	NA	Table CCW in 268.43	Carbon disulfide	75-15-0	NA	4.8
			Cyclohexanon e	108-94-1	NA	0.75
			Methanol	67-56-1	NA	0.75
*	*	*	*	*	*	*
F037	NA	Table CCW in 268.43	Chromium (Total)	7440-47-32	NA	1.7
			Nickel	7440-02-0	NA	0.20
F038	NA	Table CCW in 268.43	Chromium (Total)	7440-47-32	NA	1.7
			Nickel	7440-02-0	NA	0.20
*	*	*	*	*	*	*
K061	NA	Table CCW in 268.43	Antimony	7440-36-0	NA	2.1
			Arsenic	7440-38-2	NA	0.055
			Barium	7440-39-3	NA	7.6
			Beryllium	7440-41-7	NA	0.014
			Cadmium	7440-43-9	NA	0.19
			Chromium (Total)	7440-47-32	NA	0.33
			Lead	7439-92-1	NA	0.37
			Mercury	7439-97-6	NA	0.009
			Nickel	7440-02-0	NA	5
			Selenium	7782-49-2	NA	0.16
			Silver	7440-22-4	NA	0.3
			Thallium		NA	0.078
			Zinc	7440-66-6	NA	5.3
*	*	*	*	*	*	*

* * * * *

(c) The treatment standards for the constituents in F001-F005 which are listed in Table CCWE only apply to wastes which contain one, two, or all three of these constituents. If the waste contains any of these three constituents along with any of the other 26 constituents found in F001-F005, then only the treatment standards in § 268.43 Table CCW are required. 35-36. In § 268.42, Table 2 of paragraph (a) is amended by adding entries for K107, K108, K109, K110, K112, K123, K124, K125, K126, U328, U353, and U359 in alphanumerical order and paragraphs (b) and (d) are revised to read as follows:

§ 268.42 Treatment standards expressed as specified technologies.

* * * * *

				Technology code		
Waste code	See also	Waste descriptions and/or treatment subcategory	CAS No. for regulated hazardous constituents	Wastewaters	Nonwastewater s	
*	*	*	*	*	*	
K107		Column bottoms from product separation from the production of 1,1- dimethylhydr azine (UDMH) from carboxylic acid hydrazides	NA	INCIN; or CHOXD fb, CARBN; or BIODG fb CARBN	INCIN.	
K108		Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethyl- hydrazine (UDMH) from carboxylic acid hydrazides	NA	INCIN; or CHOXD fb, CARBN; or BIODG fb CARBN	INCIN.	
K109		Spent filter cartridges from product purification from the production of 1,1-dimethyl- hydrazine (UDMH) from carboxylic acid hydrazides	NA	INCIN; or CHOXD fb, CARBN; BIODG or fb CARBN	INCIN.	

268.42 Table 2.-Technology-Based Standards by RCRA Waste Code

к110	Condensed column overheads from intermediate separation from the production of 1,1-dimethyl- hydrazine (UDMH) from carboxylic acid hydrazides	NA	INCIN; or CHOXD fb, CARBN; or BIODG fb CARBN	INCIN.
К112	Reaction by- product water from the drying column in the production of toluenediamin e via hydrogenation of dinitrotoluen e	NA	INCIN; or CHOXD fb, CARBN; or BIODG fb CARBN	INCIN.
* *	*	*	*	*
К123	Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebis- dithiocarbami c acid and its salts	NA	INCIN; or CHOXD fb (BIODG or CARBN)	INCIN.
K124	Reactor vent scrubber water from the production of ethylenebisd ithiocarbamic acid and its salts	NA	INCIN; or CHOXD fb (BIODG or CARBN)	INCIN.
к125	Filtration, evaporation, and centrifugatio n solids from the production of ethylenebisd ithiocarbamic acid and its salts	NA	INCIN; or CHOXD fb (BIODG or CARBN)	INCIN.

K126	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylene bisdithiocarb amic acid and its salts	NA	INCIN; or CHOXD fb (BIODG or CARBN)	INCIN.
* *	*	*	*	*
U328	o-toluidine	95-53-4	INCIN; or CHOXD fb, (BIODG or CARBN); or BIODG fb CARBN	INCIN; or Thermal Destruction.
U353	p-toluidine	106-49-0	INCIN; or CHOXD fb, (BIODG or CARBN); or BIODG fb CARBN	INCIN; or Thermal Destruction.
U359	2-ethoxy- ethanol	110-80-5	INCIN; or CHOXD fb, (BIODG or CARBN); or BIODG fb CARBN	INCIN; or FSUBS.
* *	*	*	*	*

(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.

* * * * *

(d) Radioactive hazardous mixed wastes with treatment standards specified in Table 3 of this section are not subject to any treatment standards specified in §§ 268.41 or 268.43, or Table 2 of this section. Radioactive hazardous mixed wastes not subject to treatment standards in Table 3 of this section remain subject to all applicable treatment standards specified in §§ 268.41, 268.43, and Table 2 of this section. Hazardous debris containing radioactive waste is not subject to the treatment standards specified in Table 3 of this section but is subject to the treatment standards specified in § 268.45.

37. In § 268.43(a) Table CCW is amended by revising the entries for F001-F005 spent solvents, K015, K016, K018, K019, K020, K023, K024, K028, K030, K043, K048, K049, K050, K051, K052, K087, K093, K094, U028, U069, U088, U102, U107, and U190, by removing the entry for U042, and by adding the entries for F037, F038, K117, K118, K131, K132, and K136 in alphanumerical order to read as follows:

§ 268.43 Treatment standards expressed as waste concentrations.

(a) ***

					Wastewater	S	Nonwastewat	ers
Waste code	Commercia l chemical name	See also	Regulated hazardous constituent	CAS number for regulated hazardous constituent	Concentration (mg/l)	Note s	Concentration (mg/l)	Note s
*	*	*	*	*	*	*	*	*
F001- F005 spent sol- vents	NA		Acetone	67-64-1	0.28		160	
			Benzene	71-43-2	0.070		3.7	(1)
			n-Butyl alcohol	71-36-3	5.6		2.6	
			Carbon tetrachlor- ide	56-23-5	0.057		5.6	
			Chloroben- zene	108-90-7	0.057		5.7	
			Cresol (m- and p- isomers)		0.77		3.2	
			o-cresol		0.11		5.6	
			o-Dichloro- benzene	95-50-1	0.088		6.2	

268.43.-Table CCW.-Constituent Concentrations in Wastes

			Ethyl acetate	141-7-6	0.34		33	
			Ethyl benzene	100-41-4	0.057		6.0	
			Ethyl ether	60-29-7	0.12		160	
			Isobutyl alcohol	78-83-1	5.6		170	
			Methylene chloride	75-9-2	0.089		33	
			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	
			Tetrachlor- oethylene	127-18-4	0.056		5.6	
			Toluene	108-88-3	0.08		28	
			1,1,1- Trichloro- ethane	71-55-6	0.054		5.6	
			1,1,2- Trichloro- ethane	79-00-5	0.030		7.6	(1)
			Trichloro- ethylene	79-01-6	0.054		5.6	
			1,1,2- Trichloro- 1,2,2- trifluoro- methane	76-13-1	0.057		28	
			Trichloro- mono- fluorome- thane	75-69-4	0.02		33	
			Xylenes (total)		0.32		28	
*	*	*	*	*	*	*	*	*
F037	NA	Table CCWE in 268.4 1	Acenaphthene	208-96-8	0.059	(2)	NA	
			Anthracene	120-12-7	0.059	(2)	28	(1)
			Benzene	71-43-2	0.14	(2)	14	(1)
			Benzo(a)- anthracene	50-32-8	0.059	(2)	20	(1)
			Benzo(a)- pyrene	117-81-7	0.061	(2)	12	(1)

	Bis(2- ethylhexyl) phthalate	75-15-0	0.28	(2)	7.3	(1)
	Chrysene	218-01-9	0.059	(2)	15	(1)
	Di-n-butyl phthalate	105-67-9	0.057	(2)	3.6	(1)
	Ethylbenzene	100-41-4	0.057	(2)	14	(1)
	Fluorene	86-73-7	0.059	(2)	NA	
	Naphthalene	91-20-3	0.059	(2)	42	(1)
	Phenanthrene	85-01-8	0.059	(2)	34	(1)
	Phenol	108-95-2	0.039	(2)	3.6	(1)
	Pyrene	129-00-0	0.067	(2)	36	(1)
	Toluene	108-88-3	0.08	(2)	14	(1)
	Xylene(s)		0.32	(2)	22	(1)
	Cyanides (Total)	57-12-5	0.028	(1)	1.8	(1)
	Chromium (Total)	7440-47-32	0.2		NA	
	Lead	7439-92-1	0.037		NA	
Table CCWE in 268.4 1	Benzene	71-43-2	0.14	(2)	14	(1)
	Benzo(a)- pyrene	50-32-8	0.061	(2)	12	(1)
	Bis(2- ethylhexyl) phthalate	117-81-7	0.28	(2)	7.3	(1)
	Chrysene	218-01-9	0.059	(2)	15	(1)
	Di-n-butyl phthalate	84-74-2	0.057	(2)	3.6	(1)
	Ethylbenzene	100-41-4	0.057	(2)	14	(1)
	Fluorene	86-73-7	0.059	(2)	NA	
	Naphthalene	91-20-3	0.059	(2)	42	(1)
	Phenanthrene	85-01-8	0.059	(2)	34	(1)
	Phenol	108-95-2	0.039	(2)	3.6	(1)
	Pyrene	129-00-0	0.067	(2)	36	(1)
	Toluene	108-88-3	0.080	(2)	14	(1)
	Xylene(s)		0.32	(2)	22	(1)
	Cyanides (Total)	57-12-5	0.028	(1)	1.8	(1)
	Chromium (Total)	7440-47-32	0.2		NA	
	Lead	7439-92-1	0.037		NA	

F038 NA

*	*	*	*	*	* *	*	*
K015	NA	Table CCWE in 268.4 1	Anthracene	120-12-7	0.059	3.4	(1)
			Benzal Chloride	98-87-3	0.28	6.2	(1)
			Sum of Benzo(b) fluoranthene and Benzo(k) fluoranthene	207-08-9	0.055	3.4	
			Phenanthrene	85-01-8	0.059	3.4	(1)
			Toluene	108-88-3	0.08	6.0	(1)
			Chromium (Total)	7440-47-32	0.32	NA	
			Nickel	7440-02-0	0.44	NA	
K016	NA		Hexachloro- benzene	118-74-1	0.055	28	(1)
			Hexachloro- butadiene	87-68-3	0.055	5.6	(1)
			Hexachloro- cyclopen- tadiene	77-47-4	0.057	5.6	(1)
			Hexachloro- ethane	67-72-1	0.055	28	(1)
			Tetrachlor- oethene	127-18-4	0.056	6.0	(1)
*	*	*	*	*	* *	*	*
K018	NA		Chloroethane	76-00-3	0.27	6.0	(1)
			Chlorome- thane	74-87-3	0.19	NA	
			1,1- Dichloro- ethane	75-34-3	0.059	6.0	(1)
			1,2- Dichloro- ethane	107-06-2	0.21	6.0	(1)
			Hexachloro- benzene	118-74-1	0.055	28	(1)
			Hexachloro- butadiene	87-68-3	0.055	5.6	(1)
			Pentachlor- oethane	76-01-7	NA	5.6	
			1,1,1- Trichloro- ethane	71-55-6	0.054	6.0	
			Hexachloro- ethane	67-72-1	0.055	28	(1)

К019	NA		Bis(2- chloroethyl) ether	111-44-4	0.033	5.6	(1)
			Chloroben- zene	108-90-7	0.057	6.0	(1)
			Chloroform	67-66-3	0.046	6.0	(1)
			p-Dichloro- benzene	106-46-7	0.09	NA	
			1,2- Dichloro- ethane	107-06-2	0.21	6.0	(1)
			Fluorene	86-73-7	0.059	NA	
			Hexachloro- ethane	67-72-1	0.055	28	(1)
			Naphthalene	91-20-3	0.059	5.6	(1)
			Phenanthrene	85-01-8	0.059	5.6	(1)
			1,2,4,5- Tetrachlor- obenzene	95-94-3	0.055	NA	
			Tetrachlor- oethene	127-18-4	0.056	6.0	(1)
			1,2,4- Trichloro- benzene	120-82-1	0.055	19	(1)
			1,1,1- Trichloro- ethane	71-55-6	0.054	6.0	(1)
к020	NA		1,2- Dichloro- ethane	106-93-4	0.21	6.0	(1)
			1,1,2,2- Tetrachlor- oethane	79-34-6	0.057	5.6	(1)
			Tetrachlor- oethene	127-18-4	0.056	6.0	(1)
*	*	*	*	*	* *	*	*
K023	NA		Phthalic anhydride (measured as Phthalic acid)	85-44-9	0.069	28	(1)
K024	NA		Phthalic anhydride (measured as Phthalic acid)	85-44-9	0.069	28	(1)
K028	NA	Table CCWE in 268.4 1	1,1- Dichloro- ethane trans-1,2-	75-34-3	0.059	6.0	(1)
			Dichloro- ethane		0.054	6.0	(1)

				07 (0)	0.055		(1)
			Hexachloro- butadiene	87-68-3	0.055	5.6	(1)
			Hexachloro- ethane	67-72-1	0.055	28	(1)
			Pentachlor- oethane	76-01-7	NA	5.6	(1)
			1,1,1,2- Tetrachlor- oethane	630-20-6	0.057	5.6	(1)
			1,1,2,2- Tetrachlor- oethane	79-34-6	0.057	5.6	(1)
			1,1,1,- Trichloro- ethane	71-55-6	0.054	6.0	(1)
			1,1,2- Trichloro- ethane	79-00-5	0.054	6.0	(1)
			Tetrachlor- oethylene	127-18-4	0.056	6.0	(1)
			Cadmium	7440-43-9	6.4	NA	
			Chromium (Total)	7440-47-32	0.35	NA	
			Lead	7439-92-1	0.037	NA	
			NT ' 1 1	E 440.00.0	0.45		
			Nickel	7440-02-0	0.47	NA	
*	*	*	NICKEI *	/440-02-0 *	* *	NA *	*
* K030	* NA	*					*
		*	* o-Dichloro-	*	* *	*	*
		*	* o-Dichloro- benzene p-Dichloro-	* 95-50-1	* * 0.088	* NA	* (¹)
		*	* o-Dichloro- benzene p-Dichloro- benzene Hexachloro-	* 95-50-1 106-46-7	* * 0.088 0.09	* NA NA	
		*	* o-Dichloro- benzene p-Dichloro- benzene Hexachloro- butadiene Hexachloro-	* 95-50-1 106-46-7 87-68-3	* * 0.088 0.09 0.055	* NA 5.6	(1)
		*	* o-Dichloro- benzene p-Dichloro- benzene Hexachloro- butadiene Hexachloro- ethane Hexachloro-	* 95-50-1 106-46-7 87-68-3 67-72-1	* * 0.088 0.09 0.055 0.055	* NA NA 5.6 28	(¹) (¹)
		*	* o-Dichloro- benzene p-Dichloro- benzene Hexachloro- butadiene Hexachloro- ethane Hexachloro- propene Pentachlor-	* 95-50-1 106-46-7 87-68-3 67-72-1 1888-71-7	* * 0.088 0.09 0.055 0.055 NA	* NA NA 5.6 28 19	(¹) (¹) (¹)
		*	* o-Dichloro- benzene p-Dichloro- benzene Hexachloro- butadiene Hexachloro- ethane Hexachloro- propene Pentachlor- obenzene	* 95-50-1 106-46-7 87-68-3 67-72-1 1888-71-7 608-93-5	* * 0.088 0.09 0.055 0.055 NA	* NA NA 5.6 28 19 28	(¹) (¹) (¹) (¹)
		*	<pre>* o-Dichloro- benzene p-Dichloro- benzene Hexachloro- butadiene Hexachloro- ethane Hexachloro- propene Pentachlor- obenzene I,2,4,5- Tetrachlor-</pre>	* 95-50-1 106-46-7 87-68-3 67-72-1 1888-71-7 608-93-5 76-01-7	* * 0.088 0.09 0.055 0.055 NA NA NA	* NA 5.6 28 19 28 5.6	(¹) (¹) (¹) (¹) (¹)
		*	* o-Dichloro- benzene p-Dichloro- benzene Hexachloro- butadiene Hexachloro- ethane Hexachloro- propene Pentachlor- obenzene Pentachlor- oethane 1,2,4,5- Tetrachlor-	* 95-50-1 106-46-7 87-68-3 67-72-1 1888-71-7 608-93-5 76-01-7 95-94-3	* * 0.088 0.09 0.055 0.055 NA NA NA	* NA NA 5.6 28 19 28 5.6 14	<pre>(1) (1) (1) (1) (1) (1) (1) (1)</pre>

K030	NA		2,4-	120-83-2	0.044		0.38	(¹)
			Dichloro- phenol					
			2,6- Dichloro- pheno	187-65-0	0.044		0.34	(1)
			2,4,5- Trichloro- phenol	95-95-4	0.18		8.2	(1)
			2,4,6- Trichloro- phenol	88-06-2	0.035		7.6	(1)
			Tetrachlor- ophenols (Total)		NA		0.68	(1)
			Pentachlor- ophenol	87-86-5	0.089		1.9	(1)
			Tetrachlor- oethene	79-01-6	0.056		1.7	(1)
			Hexachloro- dibenzo-p- dioxins		0.000063		0.001	(1)
			Hexachloro- dibenzo- furans		0.000063		0.001	(1)
			Pentachlor- odibenzo-p- dioxins		0.000063		0.001	(1)
			Pentachlor- odibenzo furans		0.000063		0.001	(1)
			Tetrachlor- odibenzo-p- dioxins		0.000063		0.001	(1)
			Tetrachlor- odibenzo furans		0.000063		0.001	(1)
*	*	*	*	*	*	*	*	*
K048	NA	Table CCWE in 268.4 1	Benzene	71-43-2	0.14	(2)	14	(1)
			Benzo(a)- pyrene	50-32-8	0.061	(2)	12	(1)
			Bis(2- ethylhexyl) phthalate	117-81-7	0.28	(2)	7.3	(1)
			Chrysene	218-01-9	0.059	(2)	15	(1)
			Di-n-butyl- phthalate	84-74-2	0.057	(2)	3.6	(1)
			Ethylbenzene	100-41-4	0.057	(2)	14	(1)
			Fluorene	86-73-7	0.059	(2)	NA	

			Naphthalene	91-20-3	0.059	(2)	42	(1)
			Phenanthrene	85-01-8	0.059	(2)	34	(1)
			Phenol	108-95-2	0.039	(2)	3.6	(1)
			Pyrene	129-00-0	0.067	(2)	36	(1)
			Toluene	108-88-3	0.080	(2)	14	(1)
			Xylene(s)		0.32	(2)	22	(1)
			Cyanides (Total)	57-12-5	0.028	(1)	1.8	(1)
			Chromium (Total)	7440-47-32	0.2		NA	
			Lead	7439-92-1	0.037		NA	
K049	NA	Table CCWE in 268.4 1	Anthracene	120-12-7	0.059	(2)	28	(1)
			Benzene	71-43-2	0.14	(2)	14	(1)
			Benzo(a)- pyrene	117-81-7	0.061	(2)	12	(1)
			Bis(2- ethylhexyl) phthalate	75-150-0	0.28	(2)	7.3	(1)
			Carbon disulfide	75-15-0	0.014	(2)	NA	
			Chrysene	2218-01-9	0.059	(2)	15	(1)
			2,4-Dimethyl phenol	105-67-9	0.036	(2)	NA	
			Ethylbenzene	100-41-4	0.057	(2)	14	(1)
			Naphthalene	91-20-3	0.059	(2)	42	(1)
			Phenanthrene	85-01-8	0.059	(2)	34	(1)
			Phenol	108-95-2	0.039	(2)	3.6	(1)
			Pyrene	129-00-0	0.067	(2)	36	(1)
			Toluene	108-88-3	0.08	(2)	14	(1)
			Xylene(s)		0.32	(2)	22	(1)
			Cyanides (Total)	56-12-5	0.028	(1)	1.8	(1)
			Chromium (Total)	7440-47-32	0.2		NA	
K050	NA	Table CCWE in 268.4 1	Lead	7439-92-1	0.037		NA	
			Benzo(a)- pyrene	50-32-8	0.061	(2)	12	(1)
			Phenol	108-95-2	0.039	(2)	3.6	(1)

			Cyanides	57-12-5	0.028	(1)	1.8	(¹)
			(Total)					. ,
			Chromium (Total)	7440-47-32	0.2		NA	
			Lead	7439-29-1	0.037		NA	
K051	NA	Table CCWE in 268.4 1	Acenaphthene	83-32-9	0.059	(2)	NA	
			Anthracene	120-12-7	0.059	(2)	28	(1)
			Benzene	71-43-2	0.14	(2)	14	(1)
			Benzo(a) anthracene	50-32-8	0.059	(2)	20	(1)
			Benzo(a)- pyrene	117-81-7	0.061	(2)	12	(1)
			Bis(2- ethylhexyl) phthalate	75-15-0	0.28	(2)	7.3	(1)
			Chrysene	2218-01-9	0.059	(2)	15	(1)
			Di-n-butyl phthalate	105-67-9	0.057	(2)	3.6	(1)
			Ethylbenzene	100-41-4	0.057	(2)	14	(1)
			Fluorene	86-73-7	0.059	(2)	NA	
			Naphthalene	91-20-3	0.059	(2)	42	(1)
			Phenanthrene	85-01-8	0.059	(2)	34	(1)
			Phenol	108-95-2	0.039	(2)	3.6	(1)
			Pyrene	129-00-0	0.067	(2)	36	(1)
			Toluene	108-88-3	0.08	(2)	14	(1)
			Xylene(s)		0.32	(2)	22	(1)
			Cyandides (Total)	57-12-5	0.028	(1)	1.8	(1)
			Chromium (Total)	7440-47-32	0.2		NA	
			Lead	7439-29-1	0.037		NA	
			Benzene	71-43-2	0.14	(2)	14	(1)
			Benzo(a)- pyrene	50-32-8	0.061	(2)	12	(1)
K052	NA	Table CCWE in 268.4 1	o-Cresol	95-48-7	0.11	(2)	6.2	(1)
			p-Cresol	106-44-5	0.77	(2)	6.2	(1)
			2,4- Dimethyl- phenol	105-67-9	0.036	(2)	NA	

			Ethylbenzene	100-41-4	0.057	(2)	14	(1)
			Naphthalene	91-20-3	0.059	(2)	42	(1)
			Phenanthrene	85-01-8	0.059	(2)	34	(1)
			Phenol	108-95-2	0.039	(2)	3.6	(1)
			Toluene	108-88-3	0.08	(2)	14	(1)
			Xylenes		0.32	(2)	22	(1)
			Cyanides (Total)	56-12-5	0.028	(1)	1.8	(1)
			Chromium (Total)	7440-47-32	0.2		NA	
			Lead	7439-92-1	0.037		NA	
*	*	*	*	*	*	*	*	*
K087	NA	Table CCWE in 268.4 1	Acenaph- thalene	208-96-8	0.059	(2)	3.4	
			Benzene	71-43-2	0.14	(2)	0.071	(1)
			Chrysene	218-01-9	0.059	(2)	3.4	(1)
			Fluoranthene	206-44-0	0.068	(2)	3.4	(1)
			Indeno (1,2,3-cd) pyrene	193-39-5	0.0055	(2)	3.4	(1)
			Naphthalene	91-20-3	0.059	(2)	3.4	(1)
			Phenanthrene	85-01-8	0.059	(2)	3.4	(1)
			Toluene	108-88-3	0.08	(2)	0.65	(1)
			Xylenes		0.32	(2)	0.07	(1)
			Lead	7439-92-1	0.037		NA	
K093	NA		Phthalic anhydride (measured as Phthalic acid)	85-44-9	0.069		28	(1)
K094	NA		Phthalic anhydride (measured as Phthalic acid)	85-44-9	0.069		28	(1)
*	*	*	*	*	*	*	*	*
K111	NA		2,4-Dinitro- toluene	121-14-2	0.32		140	(1)
			2,6-Dinitro- toluene	606-20-2	0.55		28	(1)
*	*	*	*	*	*	*	*	*
K117	NA		Ethylene dibromide	106-93-4	0.028		15	(1)

K136 N * * U028 E e h p * * U069 D b p * * U069 D b p * U069 D b p * U069 D b p * U069 D b p * U069 D b p * * U069 D b p * U069 D b p * U069 D b p * U069 D b p * * U0088 D p * U0088 D p * U0088 D p * * U0088 D p * * U009 D b p * * U0088 D p * * U009 D b p * * U009 D b p * * U0088 D p * * U009 D p * * U009 D p * * U009 D p * * U009 D p * * U009 D p * * U009 D p * * U009 D p * * U009 D p * * * U009 D p * * U009 D p * * U009 D p * * * U009 D p * * * U009 D p * * U000 D p * * * U000 D p * * * U000 D p * * * * * * * * * * * * *	pi-n- putyl ohthalate piethyl ohthalate pimethyl ohthalate pi-n- octyl ohthalate	* * *	Bis(2- ethylhexyl) phthalate * Di-n-butyl phthalate * Diethyl phthalate * Dimethyl phthalate * Din-noctyl phthalate * Phthalate *	117-81-7 * 84-74-2 * 84-66-2 * 131-11-3 * 117-84-0 * 85-44-9	<pre>* 0.28 * 0.057 * 0.2 * 0.047 * 0.017 * 0.017 * 0.069</pre>	* * * *	28 * 28 * 28 * 28 * 28 * 28	<pre>(1) * (1) * (1) * (1) * (1) * (1) * (1) * (1)</pre>
K136 N * * U028 B P * * U069 D P * * U069 D P * * U088 D P * U088 D P * U0088 D P * * U0089 D P * * U0089 D P * * U0088 D P * * U0088 D P * * U0089 D P * * U0089 D P * * U0089 D P * * U0088 D P * * U009 D P * * U0088 D P * * U009 D P * * U009 D P * * U009 D P * * U0088 D P P * * U009 D P P * * * U009 D P P * * * U009 D P P * * * U009 D P P * * * U009 D P P * * * * * U009 D P P * * * * * * * * * * * * *	thyl- exyl) ohthalate oi-n- outyl ohthalate oiethyl ohthalate oimethyl ohthalate	*	<pre>ethylhexyl) phthalate * Di-n-butyl phthalate * Diethyl phthalate * Dimethyl phthalate * Dimethyl phthalate * Di-n-octyl phthalate</pre>	* 84-74-2 * 84-66-2 * 131-11-3 * 117-84-0	* 0.057 * 0.2 * 0.047 * 0.017	*	* 28 * 28 * 28 * 28	* (1) * (1) * (1) * (1) * (1)
K136 N * * U028 B e h p * * U069 D b p * U069 D b p * U069 D b p * * U069 D b p * * U028 S P * * U028 S S S S S S S S S S S S S S	thyl- exyl) ohthalate oi-n- outyl ohthalate oiethyl ohthalate oimethyl ohthalate	*	<pre>ethylhexyl) phthalate * Di-n-butyl phthalate * Diethyl phthalate * Dimethyl phthalate * Dimethyl phthalate * Dimethyl phthalate</pre>	* 84-74-2 * 84-66-2 * 131-11-3 *	* 0.057 * 0.2 * 0.047	*	* 28 * 28 * 28 *	* (1) * (1) * (1) * (1) *
K136 N * * U028 B e h p * U069 D b b p * * U069 D b b p * * U088 D p * * U088 D p *	thyl- exyl) ohthalate oi-n- outyl ohthalate oiethyl ohthalate	*	<pre>ethylhexyl) phthalate * Di-n-butyl phthalate * Diethyl phthalate * Dimethyl phthalate</pre>	* 84-74-2 * 84-66-2 * 131-11-3	* 0.057 * 0.2 * 0.047	*	* 28 * 28 * 28	* (1) * (1) * (1) * (1)
K136 N * * U028 B e h p * * U069 D b p * U069 D b p * * U069 D b p * * U028 S * * U028 S * * U028 S S * * U028 S S * * U028 S S * * U028 S S * * U028 S S * * * U028 S S * * * U028 S S * * * U028 S S * * * U028 S S * * * * U028 S S * * * * U028 S S S S S S S S S S S S S S	thyl- exyl) bhthalate pi-n- butyl bhthalate piethyl bhthalate	*	<pre>ethylhexyl) phthalate * Di-n-butyl phthalate * Diethyl phthalate * Diethyl phthalate</pre>	* 84-74-2 * 84-66-2 *	* 0.057 * 0.2 *	*	* 28 * 28 *	* (1) * (1) *
K136 N * * U028 B e h p * * U069 D b b p * * U069 D b b p * *	thyl- hexyl) bhthalate di-n- hutyl bhthalate diethyl bhthalate	*	ethylhexyl) phthalate * Di-n-butyl phthalate * Diethyl phthalate	* 84-74-2 * 84-66-2	* 0.057 * 0.2	*	* 28 * 28	* (1) * (1)
K136 N * * U028 B e h p * * U069 D b p p * * U069 D	thyl- exyl) bhthalate pi-n- butyl bhthalate piethyl		ethylhexyl) phthalate * Di-n-butyl phthalate * Diethyl	* 84-74-2 *	* 0.057 *		* 28 *	* (1) *
K136 N * * U028 B e h p * * U069 D b p	thyl- hexyl) hthalate n-n- putyl hthalate		ethylhexyl) phthalate * Di-n-butyl phthalate	* 84-74-2	* 0.057		* 28	* (¹)
K136 N * * U028 B e h p * * U069 D	thyl- exyl) hthalate di-n- outyl	*	ethylhexyl) phthalate * Di-n-butyl	*	*	*	*	*
K136 N * * U028 B e h p	thyl- exyl) hthalate	*	ethylhexyl) phthalate			*		
K136 N * * U028 B e h	thyl- exyl)		ethylhexyl)	117-81-7	0.28		28	(1)
K136 N	ta()							
		*	*	*	*	*	*	*
			Chloroform	67-66-3	0.046		5.6	(1)
			Methyl bromide	74-83-9	0.11		15	(1)
K132 N	IA		Ethylene dibromide	106-93-4	0.028		15	(1)
	IA		Methyl bromide	74-83-9	0.11		15	(1)
K131 N	IA		Methyl bromide	74-83-9	0.11		15	(1)
			Chloroform	67-66-3	0.046		5.6	(1)
			Methyl bromide	74-83-9	0.11		15	(1)
K118 N			Ethylene dibromide	106-93-4	0.028		15	(1)
	IA		01120202020	67-66-3	0.046		5.6	(1)
	IA		Chloroform					

FOOTNOTE: ¹Treatment standards for this organic constituent were established based upon incineration in units operated in accordance with the technical requirements of 40 CFR 264 Subpart 0 or Part 265 Subpart 0, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may certify compliance with these treatment standards according to provisions in 40 CFR Section 268.7. FOOTNOTE: ²Based on analysis of composite samples.

*

Note: NA means Not Applicable.

*

38. In subpart D, § 268.45 with Table 1 is added to read as follows:

*

*

*

§ 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(e)(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 for which BDAT standards are established for the waste under §§ 268.41 and 268.43.

(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 standards for D003 under § 268.43.

(4) Ignitable nonwastewater residue. Ignitable nonwastewater residue containing equal to or greater than 10% total organic carbon is subject to the technology-based standards for D001: "Ignitable Liquids based on § 261.21(a)(1)" under § 268.42.

(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 Debris¹

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

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

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.

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

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

All Debris: Treatment to a clean debris surface³; Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Debris must be no more than 1.2 cm (1/2 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

Same as above

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. 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

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.

Same as above.

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.

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

B. Destruction Technologies:

1. Biological Destruction (Biodegradation): Removal of hazardous contaminants from debris surfaces and surface pores in an aqueous solution and biodegration of organic or nonmetallic inorganic compounds (i.e., inorganics that contain phosphorus, nitrogen, or sulfur) in units operated under either aerobic or anaerobic conditions. All Debris: Obtain an "Equivalent Technology" approval under §268. 42(b);⁸ treated debris must be separated from treatment residuals using simple physical or mechanical means,⁹ and, prior to further treatment, such residue must meet the wastespecific 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 (1/2 inch) in onedimension (i.e., thickness limit), 5 except that this thickness limit may be waived under the "Equivalent Technology" approval

For refining furnaces,

treated debris must be

residuals using simple

physical or mechanical

further treatment, such

residuals must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris.

All Debris: Obtain an

"Equivalent Technology"

treated debris must be

residuals using simple

physical or mechanical

further treatment, such

waste contaminating the

Technology" approval

debris.

residue must meet the waste-

specific treatment standards

for organic compounds in the

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

means,⁹ and, prior to

separated from treatment

approval under §268. 42(b);⁸

means,⁹ and, prior to

separated from treatment

Debris contaminated with a dioxin-listed waste:⁵ Obtain an "Equivalent Technology" approval under §268.42(b).⁸

All Debris: Metals other than mercury.

All Debris: Metal

2. Chemical Destruction

a. Chemical Oxidation: Chemical or electolytic oxidation utilizing the following oxidation reagents (or waste reagents) or combination of reagents-(1) hypochlorite (e.g., bleach); (2) chlorine; (3) chlorine dioxide; (4) ozone or UV (ultraviolet light) assisted ozone; (5) peroxides; (6) persulfates; (7) perchlorates; (8) permanganates; and/or (9) other oxidizing reagents of equivalent destruction efficiency.⁴ Chemical oxidation specifically includes what is referred to as alkaline chlorination.

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

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.

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 wastespecific 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 (1/2 inch) in one dimension (i.e., thickness limit),⁵ except that this thickness limit may be waived under the "Equivalent Technology" approval

Same as above

All Debris: Metal contaminants.

Same as above.

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 wastespecific treatment standards for organic compounds in the waste contaminating the debris. Brick, Concrete, Glass, Metal, Pavement, Rock, Metal: Metals other than mercury, except that there are no metal restrictions for vitrification. Debris contaminated with a dioxin-listed waste.⁶ Obtain an "Equivalent Technology" approval under §268.42(b),⁸ except that this requirement does not apply to vitrification.

C. Immobilization Technologies: 1. Macroencapsulation: Application of surface coating materials such as polymeric organics (e.g., resins and plastics) or use of a jacket of inert inorganic materials to substantially reduce surface exposure to potential leaching media.	Encapsulating material must completely encapsulate debris and be resistant to degradation by the debris and its contaminants and materials into which it may come into contact after placement (leachate, other waste, microbes).	None.
2. Microencapsulation: Stabilization of the debris with the following reagents (or waste reagents) such that the leachability of the hazardous contaminants is reduced: (1) Portland cement; or (2) lime/ pozzolans (e.g., fly ash and cement kiln dust). Reagents (e.g., iron salts, silicates, and clays) may be added to enhance the set/cure time and/or compressive strength, or to reduce the leachability of the hazardous constituents. ⁵	Leachability of the hazardous contaminants must be reduced.	None.
3. Sealing: Application of an appropriate material which adheres tightly to the debris surface to avoid exposure of the surface to potential leaching media. When necessary to effectively seal the surface, sealing entails pretreatment of the debris surface to remove foreign matter and to clean and roughen the surface. Sealing materials include epoxy, silicone, and urethane compounds, but paint may not be used as a sealant	Sealing must avoid exposure of the debris surface to potential leaching media and sealant must be resistent to degradation by the debris and its contaminants and materials into which it may come into contact after placement (leachate, other waste, microbes).	None.

FOOTNOTE: ¹Hazardous debris must be treated by either these standards or the wastespecific 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.

FOOTNOTE: ²Contaminant 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).

FOOTNOTE: 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. FOOTNOTE: ⁴Acids, 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. FOOTNOTE: ⁵If 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. FOOTNOTE: ⁶Dioxin-listed wastes are EPA Hazardous Waste numbers FO20, FO21, FO22, FO23, FO26, and FO27. FOOTNOTE: ⁷Thermal 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. FOOTNOTE: "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. FOOTNOTE: ⁹Any 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.

39. In subpart D, § 268.46 is added to read as follows:

§ 268.46 Alternative treatment standards based on HTMR.

Table 1 identifies alternative treatment standards for F006 and K062 nonwastewaters.

Waste code	See also	Regulated hazardous constituent	CAS No. for regulated hazardous	Nonwastewaters concentration (mg/1) TCLP
			constituent	
F006	Table CCWE in 268.41 and Table CCW in 268.43	Antiomony	7440-36-0	2.1
		Arsenic	7440-38-2	0.055
		Barium	7440-39-3	7.6
		Beryllium	7440-41-7	0.014
		Cadmium	7440-43-9	0.19
		Chromium (total)	7440-47-32	0.33
		Cyanide (mg/kg) (total)	57-12-5	1.8
		Lead	7439-92-1	0.37

Table 1.-Alternative Treatment Standards

		Mercury	7439-97-6	0.009
		Nickel	7440-02-0	5.0
		Selenium	7782-49-2	0.16
		Silver	7440-22-4	0.30
		Thallium		0.078
		Zinc	7440-66-6	5.3
К062	Table CCWE in 268.41 and Table CCW in 268.43	Antimony	7440-36-0	2.1
		Arsenic	7440-38-2	0.055
		Barium	7440-39-3	7.6
		Beryllium	7440-41-7	0.014
		Cadmium	7440-43-9	0.19
		Chromium (total)	7440-47-32	0.33
		Lean	7439-92-1	0.37
		Mercury	7439-97-6	0.009
		Nickel	7440-02-0	5.0
		Selenium	7782-49-2	0.16
		Silver	7440-22-4	0.30
		Thallium		0.078
		Zinc	7440-66-6	5.3

40. In § 268.50, paragraph (a)(1) and the introductory text of paragraph (a)(2) are revised to read as follows:

§ 268.50 Prohibitions on storage of restricted wastes.

(a) * * *

(1) A generator stores such wastes in tanks, containers, or containment buildings on-site solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal and the generator complies with the requirements in § 262.34 and parts 264 and 265 of this chapter.

(2) An owner/operator of a hazardous waste treatment, storage, or disposal facility stores such wastes in tanks, containers, or containment buildings solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal and: * * * * *

41. In Part 268, appendix II is revised to read as follows:

Appendix II-Treatment Standards (As Concentrations in the Treatment Residual Extract)

Note: The treatment standards for F001-F005 Spent Solvent Wastes appear in §§ 268.41, 268.42, 268.43.

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

42. The authority citation for part 270 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912, 6924, 6925, 6927, 6939, and 6974.

43. In § 270.13, paragraph (n) is added to read as follows:

§ 270.13 Contents of Part A of the permit application.

* * * * *

(n) For hazardous debris, a description of the debris category(ies) and contaminant category(ies) to be treated, stored, or disposed of at the facility.

44. In § 270.14, paragraph (b)(2) is revised to read as follows:

§ 270.14 Contents of Part B: General requirements.

* * * * *

(b) * * *

(2) Chemical and physical analyses of the hazardous waste and hazardous debris to be handled at the facility. At a minimum, these analyses shall contain all the information which must be known to treat, store, or dispose of the wastes properly in accordance with part 264 of this chapter.

* * * * *

45. In § 270.42, paragraph (e)(3)(ii)(B) is revised to read as follows:

§ 270.42 Permit modification at the request of the permittee.

* * * * *

(e) * * *

(ii) * * *

(B) To allow treatment or storage in tanks or containers, or in containment buildings in accordance with 40 CFR part 268;

* * * * *

46. In § 270.42, appendix I is amended by adding entry 6 to section I., and by adding new section M. to read as follows:

		Modifications		Cl	ass
*	*	*	*	*	
I. Enclos	ed Waste Piles. * *	*			
*	*	*	*	*	
6. Conver	sion of an enclosed	waste pile to a co	ntainment building u	unit.	2
*	*	*	*	*	
M. Contai	nment Buildings.				
1. Modifi	cation or addition	of containment buil	ding units:		
	. Resulting in great ontainment building		e in the facility's t capacity.		3
	Resulting in up to Ailding storage or t		e facility's contair	nment	2
	cation of a contain thout increasing th	5	or secondary contain nit.	nment	2
3. Replacement of a containment building with a containment building that meets the same design standards provided:					
a.	. The unit capacity	is not increased.			1
	. The replacement co n the permit.	ntainment building	meets the same condi	itions	1
4. Modifi	cation of a contain	ment building manag	ement practice.		2
5. Storag	ge or treatment of d	ifferent wastes in	containment building	js:	
a.	. That require addit	ional or different	management practices	5.	3
	. That do not requir ractices	e additional or dif	ferent management		2

Appendix I to §270.42-Classification of Permit Modification

47. In § 270.72, paragraph (b)(6) is revised to read as follows:

§ 270.72 Changes during interim status.

* * * * *

(b) * * *

(6) Changes to treat or store, in tanks, containers, or containment buildings, hazardous wastes subject to land disposal restrictions imposed by part 268 of this chapter or RCRA section 3004, provided that such changes are made solely for the purpose of complying with part 268 of this chapter or RCRA section 3004.

* * * * *

>>>> § 271 has not been included because it is not required as part of a State's Hazardous Waste Program. <<<<

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