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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 260, 261, 262, 264, 265, 270, 271, and 302

[EPA/OSW-FR-91-008/FRL-3856-7]

RIN 2050-AC43

Identification and Listing of Hazardous Waste; Wood Preserving

AGENCY: Environmental Protection Agency.

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency is today amending its regulations under the Resource Conservation and Recovery Act (RCRA) by listing as hazardous three categories of wastes from wood preserving operations that use chlorophenolic, creosote, and/or inorganic (arsenical and chromium) preservatives. Today's rule finalizes portions of a proposed rule published by EPA on December 30, 1988 (53 FR 53282).

The listings finalized today include wastewaters, process residuals, preservative drippage, and spent preservatives from wood preserving processes at facilities that use or have previously used chlorophenolic formulations, facilities that use creosote formulations, and facilities that use inorganic preservatives containing arsenic or chromium. With respect to wastes from surface protection processes that use chlorophenolic formulations (proposed waste F033), EPA is deferring a final listing until more information can be collected on which to support a decision. These wastes may, however, exhibit the Toxicity Characteristic and consequently, may already be regulated as hazardous waste under subtitle C.

Today's rule includes permitting and interim status standards for drip pads used to assist in the collection of treated wood drippage. These standards include requirements for drip pad design and operation, inspections, and closure. Under today's rule, generators may be eligible for a 90-day generator exemption from permitting if their pads meet all of the technical standards for drip pads.

The effect of listing F032, F034, and F035 will be to subject them to the hazardous waste regulations of 40 CFR parts 124, 262 through 266, 268, 270, and 271; the notification requirements of section 3010 of RCRA; and the notification requirements under CERCLA section 103.

DATES: Today's final rule will become effective on June 6, 1991. For compliance deadlines, see section VIII of this preamble. The information collection requirements contained in the following paragraphs have not been approved by the Office of Management and Budget (OMB) and are not effective until OMB has approved them: § 261.35(b)(1), (b)(3), (c); § 262.34(a)(2)(i), (a)(2)(ii); § 264.571(a), (b); § 264.572(i), (k), (m)(1)(i), (m)(1)(iv), (m)(3), (o); § 264.573(a); § 264.574(c)(1)(i), (c)(1)(ii); § 265.441(a); (b); § 265.443(g), (i), (k), (m)(1)(i), (m)(1)(iv), (m)(3), (n); § 265.444(a); § 265.445(c)(1)(i), (c)(1)(ii); § 270.22(a), (b), (c). A Federal Register Notice will be published in which the effective dates for these regulations will be established.

ADDRESSES: The official record for this rulemaking is identified as Docket Number F-90-WPWF-FFFFF and is located in the EPA RCRA Docket, room M2427, 401 M Street SW., Washington, DC 20460. The public must make an appointment in order to review docket materials by calling (202) 475-9327, for the RCRA portion of the docket, or (202) 382-3046 for the CERCLA portion of the docket. Both dockets are available for inspection from 9 a.m. to 4 p.m., Monday through Friday, excluding holidays. The public may copy up to 100 pages from the docket at no charge. Additional copies cost $0.15 per page.

FOR FURTHER INFORMATION CONTACT: The RCRA/CERCLA Hotline at (800) 424-9346 or, in the Washington, DC area, at (202) 382-3000. For technical information on the RCRA portion of the rule contact Mr. Ed Freedman or Mr. Edwin F. Abrams of the Office of Solid Waste (OS-333) at (202) 382-4770. For technical information on the CERCLA portion of the rule, contact Mr. Daniel Chellaraj, Response Standards and Criteria Branch, Emergency Response Division, Office of Emergency and Remedial Response (OS-210) at (202) 382-2344. Both offices are located at the U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460.

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

For the reasons set out in the preamble, 40 CFR parts 260, 261, 262, 264, 265, 270, 271, and 302 are amended as follows:

PART 260-HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL

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

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

2. Section 260.10 is amended by adding the definition of "Drip Pad", in alphabetical order, as follows:

§ 260. 10 Definitions.
* * * * *

Drip pad is an engineered structure consisting of a curbed, free-draining base, constructed of non-earthen materials and designed to convey preservative kick-back or drippage from treated wood, precipitation, and surface water run-on to an associated collection system at wood preserving plants.
* * * * *

PART 261-IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

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

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

4. Section 261.4 is amended by adding paragraph (a)(9) to read as follows:

§ 261.4 Exclusions.
* * * * *

(a) * * *

(9) Spent wood preserving solutions that have been used and are reclaimed and reused for their original intended purpose.
* * * * *

5. Section 261.31(a) is amended by adding the following hazardous waste listings in alphanumeric order to read as follows:

§ 261.31 Hazardous wastes from non-specific sources.

(a) * * *

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
* * * * *		
F032	Wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with § 261. 35 of this chapter and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol	(T)
F034	Wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol	(T)
F035	Wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol	(T)

6. Section 261.35 is added to read as follows:

§ 261.35 Deletion of Certain Hazardous Waste Codes Following Equipment Cleaning and Replacement.

(a) Wastes from wood preserving processes at plants that do not resume or initiate use of chlorophenolic preservatives will not meet the listing definition of F032 once the generator has met all of the requirements of paragraphs (b) and (c) of this section. These wastes may, however, continue to meet another hazardous waste listing description or may exhibit one or more of the hazardous waste characteristics.

(b) Generators must either clean or replace all process equipment that may have come into contact with chlorophenolic formulations or constituents thereof, including, but not limited to, treatment cylinders, sumps, tanks, piping systems, drip pads, fork lifts, and trams, in a manner which minimizes or eliminates the escape of hazardous waste or waste constituents, leachate, contaminated drippage, or hazardous waste decomposition products to the ground and surface waters and to the atmosphere. Generators must either:

(1) Prepare and sign a written equipment cleaning or replacement plan that describes the equipment to be cleaned or replaced, how the equipment will be cleaned or replaced, and the appropriate solvent chosen to use in cleaning and conduct cleaning and/or replacement in accordance with the plan by replacing the equipment and managing the discarded equipment as F032 waste; or

(2) Removing all visible residues from process equipment; and rinsing process equipment with an appropriate solvent until dioxins and dibenzofurans are not detected in the final solvent rinse at or below the lower method calibration limit (MCL) in Table 1 when tested in accordance with SW-846

Method 8290; and managing all residues from the cleaning process as F032 waste; or

(3) Document that previous equipment cleaning or replacement was performed in accordance with the requirements of this section and occurred after a change in preservative.

(c) The generator must maintain the following records documenting the cleaning and replacement as part of the facility's operating record:

(1) The name and address of the facility;

(2) Formulations previously used and the date on which their use ceased in each process at the plant;

(3) Formulations currently used in each process at the plant;

(4) The equipment cleaning or replacement plan;

(5) The name and address of any persons who conducted the cleaning and replacement;

(6) The dates on which cleaning and replacement were accomplished;

(7) The dates of sampling and testing;

(8) A description of the sample handling and preparation techniques, including techniques used for extraction, containerization, preservation, and chain-of-custody of the samples;

(9) A description of the tests performed, the date the tests were performed, and the results of the tests;

(10) The name and model numbers of the instrument(s) used in performing the tests;

(11) QA/QC documentation; and

(12) The following statement signed by the generator or his authorized representative:

I certify under penalty of law that all process equipment required to be cleaned or replaced under 40 CFR 261.35 was cleaned or replaced as represented in the equipment cleaning and replacement plan and accompanying documentation. I am aware that there are significant penalties for providing false information, including the possibility of fine or imprisonment.

7. Table 1 in appendix III to part 261 is amended to add the following compound in alphabetical order as follows:

Appendix III-Chemical Analysis Test Methods

Table 1.-Analysis Methods for Organic Chemicals Contained in SW-846

Compound	Method Nos.
* * * * *	
Benzo(k) fluoranthene	8100,8250, 8270, 8310
* * * * *	

* * * * *

8. Appendix VII to part 261 is amended to add the following waste streams in alphanumeric order as follows:

Appendix VII-Basis for Listing Hazardous Waste

EPA hazardous waste No.	Hazardous constituents for which listed
* * * * *	
F032	Benz(a)anthracene, benzo(a)pyrene, dibenz(a,h)-anthracene,indeno(1,2,3-cd)pyrene, pentachlorophenol, arsenic, chromium, tetra-, penta-, hexa-, heptachlorodibenzo-p-dioxins, tetra-, penta-, hexa-, heptachlorodibenzofurans.
F034	Benz(a)anthracene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, naphthalene, arsenic, chromium.
F035	Arsenic, chromium, lead.
* * * * *	

9. Appendix VIII to part 261 is amended to add the following hazardous constituents in alphabetical order as follows:

Appendix VIII-Hazardous Constituents

Common name	Chemical abstracts name	Chemical abstracts No.	Hazardous Waste no.
* * * * * * *			
Benzo(k)fluoranthene	Same	207-08-9	
* * * * * * *			
Heptachlorodibenzofurans.			
Heptachlorodibenzo-p-dioxins			
* * * * * * *			

PART 262-STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE

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

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

11. Section 262.34 is amended by redesignating paragraphs (a)(2) through (a)(4) as (a)(3) through (a)(5) and by adding a new paragraph (a)(2) to read as follows:

§ 262.34 Accumulation time.

(a) * * *

(2) The waste is placed on drip pads and the generator complies with subpart W of 40 CFR part 265 and maintains the following records at the facility:

(i) A description of procedures that will be followed to ensure that all wastes are removed from the drip pad and associated collection system at least once every 90 days; and

(ii) 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.

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 § 165.114.
* * * * *

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

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

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

13.-14. Section 264.190 is amended by revising the introductory text and by adding paragraph (c) to read as follows:

§ 264.190 Applicability.

The requirements of this subpart apply to owners and operators of facilities that use tank systems for storing or treating hazardous waste except as otherwise provided in paragraphs (a), (b), and (c) of this section or in § 264.1 of this part.
* * * * *

(c) Tanks, sumps, and other such collection devices or systems used in conjunction with drip pads, as defined in § 260.10 of this chapter and regulated under 40 CFR part 264 subpart W, must meet the requirements of this subpart.
* * * * *

15. Part 264 is amended by adding subpart W as follows:

Subpart W-Drip Pads

Subpart W-Drip Pads

§ 264.570 Applicability.

(a) The requirements of this subpart apply to owners and operators of facilities that use new or existing drip pads to convey treated wood drippage to an associated collection system. Existing drip pads are those constructed

before December 6, 1990 and those for which the owner or operator has a design and has entered into binding financial or other agreements for construction prior to December 6, 1990. All other drip pads are new drip pads.

(b) The owner or operator of any drip pad that is inside or under a structure that provides protection from precipitation so that neither run-off nor run-on is generated is not subject to regulation under § 264.572(e) or § 264.572(f), as appropriate.

§ 264.571 Assessment of existing drip pad integrity.

(a) For each existing drip pad as defined in § 264.570 of this subpart, the owner or operator must evaluate the drip pad and determine that it meets all of the requirements of this subpart, except the requirements for liners and leak detection systems of § 264.572(b). No later than the effective date of this rule, the owner or operator must obtain and keep on file at the facility a written assessment of the drip pad, reviewed and certified by an independent, qualified registered professional engineer that attests to the results of the evaluation. The assessment must be reviewed, updated and re-certified annually until all upgrades, repairs, or modifications necessary to achieve compliance with all of the standards of § 264.572 of this subpart are complete. The evaluation must document the extent to which the drip pad meets each of the design and operating standards of § 264.572 of this subpart, except the standards for liners and leak detection systems, specified in § 264.572(b) of this subpart, and must document the age of the drip pad to the extent possible, to document compliance with paragraph (b) of this section.

(b) The owner or operator must develop a written plan for upgrading, repairing, and modifying the drip pad to meet the requirements of § 264.572(b) of this subpart and submit the plan to the Regional Administrator no later than 2 years before the date that all repairs, upgrades, and modifications will be complete. This written plan must describe all changes to be made to the drip pad in sufficient detail to document compliance with all the requirements of § 264.572 of this subpart and must document the age of the drip pad to the extent possible. The plan must be reviewed and certified by an independent qualified, registered professional engineer. All upgrades, repairs, and modifications must be completed in accordance with the following:

(1) For existing drip pads of known and documentable age, all upgrades, repairs, and modifications must be completed within two years of the effective date of this rule, or when the drip pad has reached 15 years of age, whichever comes later.

(2) For existing drip pads for which the age cannot be documented, within 8 years of the effective date of this rule, but if the age of the facility is greater than 7 years, all upgrades, repairs and modifications must be completed by the time the facility reaches 15 years of age or by two years after the effective date of this rule, whichever comes later.

(3) If the owner or operator believes that the drip pad will continue to meet all of the requirements of § 264.572 of this subpart after the date upon which all upgrades, repairs and modifications must be completed as established under paragraphs (b) (1) and (2) of this section, the owner or operator may petition the Regional Administrator for an extension of the deadline as specified in paragraph (b) (1) or (2) of this section. The Regional Administrator will grant the petition for extension based on a finding that the drip pad meets all of the requirements of § 264.572, except those for liners and leak detection systems specified in § 264.572(b), and that it will continue to be protective of human health and the environment.

(c) Upon completion of all, repairs, and modifications, the owner or operator must submit to the Regional Administrator or State Director, the as-built drawings for the drip pad together with a certification by an independent, qualified registered professional engineer attesting that the drip pad conforms to the drawings.

(d) If the drip pad is found to be leaking or unfit for use, the owner or operator must comply with the provisions of § 264.572(m) of this subpart or close the drip pad in accordance with § 264.574 of this subpart.

§ 264.572 Design and operating requirements.

(a) Drip pads must:

(1) Be constructed of non-earthen materials, excluding wood and non-structurally supported asphalt;

(2) Be sloped to free-drain treated wood drippage, rain and other waters, or solutions of drippage and water or other wastes to the associated collection system;

(3) Have a curb or berm around the perimeter;

(4) Be impermeable, e.g., concrete pads must be sealed, coated, or covered with an impermeable material such that the entire surface where drippage occurs or may run across is capable of containing such drippage and mixtures of drippage and precipitation, materials, or other wastes while being routed to an associated collection system; and

(5) Be of sufficient structural strength and thickness to prevent failure due to physical contact, climatic conditions, the stress of installation, and the stress of daily operations, e.g., variable and moving loads such as vehicle traffic, movement of wood, etc.

Note: EPA will generally consider applicable standards established by professional organizations generally recognized by the industry such as the American Concrete Institute (ACI) or the American Society of Testing Materials (ASTM) in judging the structural integrity requirement of this paragraph.

(b) A drip pad must have:

(1) A synthetic liner installed below the drip pad that is designed, constructed, and installed to prevent leakage from the drip pad into the adjacent subsurface soil or groundwater or surface water at any time during the active life (including the closure period) of the drip pad. The liner must be constructed of materials that will prevent waste from being absorbed into the liner and to prevent releases into the adjacent subsurface soil or ground water or surface water during the active life of the facility. The liner must be:

(i) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or drip pad leakage to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation (including stresses from vehicular traffic on the drip pad);

(ii) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression or uplift; and

(iii) Installed to cover all surrounding earth that could come in contact with the waste or leakage; and

(2) A leakage detection system immediately above the liner that is designed, constructed, maintained and operated to detect leakage from the drip pad. The leakage detection system must be:

(i) Constructed of materials that are:

(A) Chemically resistant to the waste managed in the drip pad and the leakage that might be generated; and

(B) Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlaying materials and by any equipment used at the drip pad; and

(ii) Designed and operated to function without clogging through the scheduled closure of the drip pad.

(iii) Designed so that it will detect the failure of the drip pad or the presence of a release of hazardous waste or accumulated liquid at the earliest practicable time.

(c) Drip pads must be maintained such that they remain free of cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be released from the drip pad.

Note: See § 264.572(m) for remedial action required if deterioration or leakage is detected.

(d) The drip pad and associated collection system must be designed and operated to convey, drain, and collect liquid resulting from drippage or precipitation in order to prevent run-off.

(e) Unless protected by a structure, as described in § 264.570(b) of this subpart, the owner or operator must design, construct, operate and maintain a run-on control system capable of preventing flow onto the drip pad during peak discharge from at least a 24-hour, 25-year storm, unless the system has sufficient excess capacity to contain any run-on that might enter the system, or the drip pad is protected by a structure or cover, as described in § 264.570(b) of this subpart.

(f) Unless protected by a structure or cover, as described in § 264.570(b) of this subpart, the owner or operator must design, construct, operate and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(g) The drip pad must be evaluated to determine that it meets the requirements of paragraphs (a) through (f) of this section and the owner or operator must obtain a statement from an independent, qualified registered professional engineer certifying that the drip pad design meets the requirements of this section.

(h) Drippage and accumulated precipitation must be removed from the associated collection system as necessary to prevent overflow onto the drip pad.

(i) The drip pad surface must be cleaned thoroughly at least once every seven days such that accumulated residues of hazardous waste or other materials are removed, using an appropriate and effective cleaning technique, including but not limited to, rinsing, washing with detergents or other

appropriate solvents, or steam cleaning. The owner or operator must document the date and time of each cleaning and the cleaning procedure used in the facility's operating log.

(j) Drip pads must be operated and maintained in a manner to minimize tracking of hazardous waste or hazardous waste constituents off the drip pad as a result of activities by personnel or equipment.

(k) After being removed from the treatment vessel, treated wood from pressure and non-pressure processes must be held on the drip pad until drippage has ceased. The owner or operator must maintain records sufficient to document that all treated wood is held on the pad following treatment in accordance with this requirement.

(l) Collection and holding units associated with run-on and run-off control systems must be emptied or otherwise managed as soon as possible after storms to maintain design capacity of the system.

(m) Throughout the active life of the drip pad and as specified in the permit, if the owner or operator detects a condition that could lead to or has caused a release of hazardous waste, the condition must be repaired within a reasonably prompt period of time following discovery, in accordance with the following procedures:

(1) Upon detection of a condition that has led or could lead to a release of hazardous waste (e.g., upon detection of leakage in the leak detection system), the owner or operator must:

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

(ii) Immediately remove the portion of the drip pad affected by the condition from service;

(iii) Determine what steps must be taken to repair the drip pad and clean up any leakage from below the drip pad, and establish a schedule for accomplishing the repairs;

(iv) Within 24 hours after discovery of the condition, notify the Regional Administrator of the condition and, within 10 working days, provide written notice to the Regional Administrator with a description of the steps that will be taken to repair the drip pad and clean up any leakage, and the schedule for accomplishing this work.

(2) The Regional Administrator will review the information submitted, make a determination regarding whether the pad must be removed from service completely or partially until repairs and clean up are complete, and notify the owner or operator of the determination and the underlying rationale in writing.

(3) Upon completing all repairs and clean up, the owner or operator must notify the Regional Administrator in writing and provide a certification, signed by an independent, qualified registered professional engineer, that the repairs and clean up have been completed according to the written plan submitted in accordance with paragraph (m)(3) of this section.

(n) Should a permit be necessary, the Regional Administrator will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this section are satisfied.

(o) The owner or operator must maintain, as part of the facility operating log, documentation of past operating and waste handling practices.

This must include identification of preservative formulations used in the past, a description of drippage management practices, and a description of treated wood storage and handling practices.

§ 264.573 Inspections.

(a) During construction or installation, liners and cover systems (e.g., membranes, sheets, or coatings) must be inspected for uniformity, damage, and imperfections (e.g., holes, cracks, thin spots, or foreign materials). Immediately after construction or installation, liners must be inspected and certified as meeting the requirements of § 264.572 of this subpart by an independent qualified, registered professional engineer. The certification must be maintained at the facility as part of the facility operating record. After installation liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters.

(b) While a drip pad is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

(1) Deterioration, malfunctions or improper operation of run-on and run-off control systems;

(2) The presence of leakage in and proper functioning of leak detection system.

(3) Deterioration or cracking of the drip pad surface.

Note: See § 264.572(m) for remedial action required if deterioration or leakage is detected.

§ 264.574 Closure.

(a) At closure, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (pad, liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leakage, and manage them as hazardous waste.

(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 practically removed or decontaminated, he must close the facility and perform post-closure care in accordance with closure and post-closure care requirements that apply to landfills (§ 264.310). For permitted units, the requirement to have a permit continues throughout the post-closure period. In addition, for the purposes of closure, post-closure, and financial responsibility, such a drip pad 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.

(c)(1) The owner or operator of an existing drip pad, as defined in § 264.570 of this subpart, that does not comply with the liner requirements of § 264.572(b)(1) must:

(i) Include in the closure plan for the drip pad under § 264.112 both a plan for complying with paragraph (a) of this section and a contingent plan for complying with paragraph (b) of this section in case not all contaminated subsoils can be practicably removed at closure; and

(ii) Prepare a contingent post-closure plan under § 264.118 of this part for complying with paragraph (b) of this section in case not all contaminated subsoils can be practicably removed at closure.

(2) The cost estimates calculated under §§ 264.112 and 264.144 of this part for closure and post-closure care of a drip pad subject to this Paragraph must include the cost of complying with the contingent closure plan and the contingent post-closure plan, but are not required to include the cost of expected closure under paragraph (a) of this section.

§ 264.575 Design and installation of new drip pads.

Owners and operators of drip pads must ensure that the pads are designed, installed and operated in accordance with all of the applicable requirements of §§ 264.572, 264.573 and 264.574 of this subpart.

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

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

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

17.-18. Section 265.190 is amended by revising the introductory text and by adding paragraph (c) to read as follows:

§ 265.190 Applicability.

The requirements of this subpart apply to owners and operators of facilities that use tank systems for storing or treating hazardous waste except as otherwise provided in paragraphs (a), (b), and (c) of this section or in § 265.1 of this part.
* * * * *

(c) Tanks, sumps, and other collection devices used in conjunction with drip pads, as defined in § 260.10 of this chapter and regulated under 40 CFR part 265 subpart W, must meet the requirements of this subpart.
* * * * *

19. Part 265 is amended by adding subpart W as follows:

Subpart W-Drip Pads

Subpart W-Drip Pads

§ 265.440 Applicability.

(a) The requirements of this subpart apply to owners and operators of facilities that use new or existing drip pads to convey treated wood drippage to an associated collection system. Existing drip pads are those constructed before December 6, 1990, and those for which the owner or operator has generated a design and has entered into binding financial or other agreements for construction prior to December 6, 1990. All other drip pads are new drip pads.

(b) The owner or operator of any drip pad that is inside or under a structure that provides protection from precipitation so that neither run-off nor run-on is generated is not subject to regulation under § 265.443(e) or § 265.443(f), as appropriate.

§ 265.441 Assessment of existing drip pad integrity.

(a) For each existing drip pad as defined in § 265.440 of this subpart, the owner or operator must evaluate the drip pad and determine that it meets all of the requirements of this subpart, except the requirements for liners and leak detection systems of § 265.443(b). No later than the effective date of this rule, the owner or operator must obtain and keep on file at the facility a written assessment of the drip pad, reviewed and certified by an independent, qualified registered professional engineer that attests to the results of the evaluation. The assessment must be reviewed, updated and re-certified annually until all upgrades, repairs, or modifications necessary to achieve compliance with all of the standards of § 265.443 of this subpart are complete. The evaluation must justify and document the extent to which the drip pad meets each of the design and operating standards of § 265.443 of this subpart, except the standards for liners and leak detection systems, specified in § 265.443(b) of this subpart, and must document the age of the drip pad to the extent possible, to document compliance with paragraph (b) of this section.

(b) The owner or operator must develop a written plan for upgrading, repairing, and modifying the drip pad to meet the requirements of § 265.443(b) of this subpart and submit the plan to the Regional Administrator no later than 2 years before the date that all repairs, upgrades, and modifications will be complete. This written plan must describe all changes to be made to the drip pad in sufficient detail to document compliance with all the requirements of § 265.443 of this subpart and must document the age of the drip pad to the extent possible. The plan must be reviewed and certified by an independent qualified, registered professional engineer. All upgrades, repairs, and modifications must be completed in accordance with the following:

(1) For existing drip pads of known and documentable age, all upgrades, repairs, and modifications must be completed within two years of the effective date of this rule, or when the drip pad has reached 15 years of age, whichever comes later.

(2) For existing drip pads for which the age cannot be documented, within 8 years of the effective date of this rule, but if the age of the facility is greater than 7 years, all upgrades, repairs and modifications must be completed by the time the facility reaches 15 years of age or by two years after the effective date of this rule, whichever comes later.

(3) If the owner or operator believes that the drip pad will continue to meet all of the requirements of § 265.443 of this subpart after the date upon which all upgrades, repairs and modifications must be completed as established under paragraphs (b) (1) and (2) of this section, the owner or operator may petition the Regional Administrator for an extension of the deadline as specified in paragraph (b) (1) or (2) of this section. The Regional Administrator will grant the petition for extension based on a finding that the drip pad meets all of the requirements of § 265.443, except those for liners and leak detection systems specified in § 265.443(b), and that it will continue to be protective of human health and the environment.

(c) Upon completion of all, repairs, and modifications, the owner or operator must submit to the Regional Administrator or State Director, the as-built drawings for the drip pad together with a certification by an

independent, qualified registered professional engineer attesting that the drip pad conforms to the drawings.

(d) If the drip pad is found to be leaking or unfit for use, the owner or operator must comply with the provisions of § 265.443(m) of this subpart or close the drip pad in accordance with § 265.445 of this subpart.

§ 265.442 Design and installation of new drip pads.

Owners and operators of new drip pads must ensure that the pads are designed, installed and operated in accordance with all of the applicable requirements of §§ 265.443, 265.444 and 265.445 of this subpart.

§ 265.443 Design and operating requirements.

(a) Drip pads must:

(1) Be constructed of non-earthen materials, excluding wood and non-structurally supported asphalt;

(2) Be sloped to free-drain treated wood drippage, rain and other waters, or solutions of drippage and water or other wastes to the associated collection system;

(3) Have a curb or berm around the perimeter;

(4) Be impermeable, e.g., concrete pads must be sealed, coated, or covered with an impermeable material such that the entire surface where drippage occurs or may run across is capable of containing such drippage and mixtures of drippage and precipitation, materials and other wastes, while being routed to an associated collection system; and

(5) Be of sufficient structural strength and thickness to prevent failure due to physical contact, climatic conditions, the stress of installation, and the stress of daily operations, e.g., variable and moving loads such as vehicle traffic, movement of wood, etc.

Note: EPA will generally consider applicable standards established by professional organizations generally recognized by industry such as the American Concrete Institute (ACI) and the American Society of Testing Materials (ASTM) in judging the structural integrity requirement of this paragraph.

(b) A new drip pad or an existing drip pad, after the deadline established in § 265.441(b) of this subpart, must have:

(1) A synthetic liner installed below the drip pad that is designed, constructed, and installed to prevent leakage from the drip pad into the adjacent subsurface soil or groundwater or surface water at any time during the active life (including the closure period) of the drip pad. The liner must be constructed of materials that will prevent waste from being absorbed into the liner and prevent releases into the adjacent subsurface soil or ground water or surface water during the active life of the facility. The liner must be:

(i) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or drip pad leakage to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation (including stresses from vehicular traffic on the drip pad);

(ii) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression or uplift; and

(iii) Installed to cover all surrounding earth that could come in contact with the waste or leakage; and

(2) A leakage detection system immediately above the liner that is designed, constructed, maintained and operated to detect leakage from the drip pad. The leakage detection system must be:

(i) Constructed of materials that are:

(A) Chemically resistant to the waste managed in the drip pad and the leakage that might be generated; and

(B) Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlaying materials and by any equipment used at the drip pad; and

(ii) Designed so that it will detect the failure of the drip pad or the presence of a release of hazardous waste or accumulated liquid at the earliest practicable time.

(c) Drip pads must be maintained such that they remain free of cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be released from the drip pad.

Note: See § 265.443(m) for remedial action required if deterioration or leakage is detected.

(d) The drip pad and associated collection system must be designed and operated to convey, drain, and collect liquid resulting from drippage or precipitation in order to prevent run-off.

(e) Unless protected by a structure, as described in § 265.440(b) of this subpart, the owner or operator must design, construct, operate and maintain a run-on control system capable of preventing flow onto the drip pad during peak discharge from at least a 24-hour, 25-year storm unless the system has sufficient excess capacity to contain any run-on that might enter the system, or the drip pad is protected by a structure or cover, as described in § 265.440(b) of this subpart.

(f) Unless protected by a structure or cover, as described in § 265.440(b) of this subpart, the owner or operator must design, construct, operate and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(g) The drip pad must be evaluated to determine that it meets the requirements of paragraphs (a) through (f) of this section and the owner or operator must obtain a statement from an independent, qualified registered professional engineer certifying that the drip pad design meets the requirements of this section.

(h) Drippage and accumulated precipitation must be removed from the associated collection system as necessary to prevent overflow onto the drip pad.

(i) The drip pad surface must be cleaned thoroughly at least once every seven days such that accumulated residues of hazardous waste or other materials are removed, using an appropriate and effective cleaning technique,

including but not limited to, rinsing, washing with detergents or other appropriate solvents, or steam cleaning. The owner or operator must document the date and time of each cleaning and the cleaning procedure used in the facility's operating log.

(j) Drip pads must be operated and maintained in a manner to minimize tracking of hazardous waste or hazardous waste constituents off the drip pad as a result of activities by personnel or equipment.

(k) After being removed from the treatment vessel, treated wood from pressure and non-pressure processes must be held on the drip pad until drippage has ceased. The owner or operator must maintain records sufficient to document that all treated wood is held on the pad following treatment in accordance with this requirement.

(l) Collection and holding units associated with run-on and run-off control systems must be emptied or otherwise managed as soon as possible after storms to maintain design capacity of the system.

(m) Throughout the active life of the drip pad, if the owner or operator detects a condition that could lead to or has caused a release of hazardous waste, the condition must be repaired within a reasonably prompt period of time following discovery, in accordance with the following procedures:

(1) Upon detection of a condition that has led or could lead to a release of hazardous waste (e.g., upon detection of leakage by the leak detection system), the owner or operator must:

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

(ii) Immediately remove the portion of the drip pad affected by the condition from service;

(iii) Determine what steps must be taken to repair the drip pad, remove any leakage from below the drip pad, and establish a schedule for accomplishing the clean up and repairs;

(iv) Within 24 hours after discovery of the condition, notify the Regional Administrator of the condition and, within 10 working days, provide a written notice to the Regional Administrator with a description of the steps that will be taken to repair the drip pad, and clean up any leakage, and the schedule for accomplishing this work.

(2) The Regional Administrator will review the information submitted, make a determination regarding whether the pad must be removed from service completely or partially until repairs and clean up are complete, and notify the owner or operator of the determination and the underlying rationale in writing.

(3) Upon completing all repairs and clean up, the owner or operator must notify the Regional Administrator in writing and provide a certification, signed by an independent qualified, registered professional engineer, that the repairs and clean up have been completed according to the written plan submitted in accordance with paragraph (m)(3) of this section.

(n) The owner or operator must maintain, as part of the facility operating log, documentation of past operating and waste handling practices. This must include identification of preservative formulations used in the past, a description of drippage management practices, and a description of treated wood storage and handling practices.

§ 265.444 Inspections.

(a) During construction or installation, liners and cover systems (e.g., membranes, sheets, or coatings) must be inspected for uniformity, damage, and imperfections (e.g., holes, cracks, thin spots, or foreign materials). Immediately after construction or installation, liners must be inspected and certified as meeting the requirements of § 265.443 of this Subpart by an independent qualified, registered professional engineer. The certification must be maintained at the facility as part of the facility operating record. After installation liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters.

(b) While a drip pad is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

(1) Deterioration, malfunctions or improper operation of run-on and run-off control systems;

(2) The presence of leakage in and proper functioning of leakage detection system.

(3) Deterioration or cracking of the drip pad surface.

Note: See § 265.443(m) for remedial action required if deterioration or leakage is detected.

§ 265.445 Closure.

(a) At closure, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (pad, liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leakage, and manage them as hazardous waste.

(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 practically removed or decontaminated, he must close the facility and perform post/closure care in accordance with closure and post-closure care requirements that apply to landfills (§ 265.310). For permitted units, the requirement to have a permit continues throughout the post-closure period.

(c)(1) The owner or operator of an existing drip pad, as defined in § 265.440 of this subpart, that does not comply with the liner requirements of § 265.443(b)(1) must:

(i) Include in the closure plan for the drip pad under § 265.112 both a plan for complying with paragraph (a) of this section and a contingent plan for complying with paragraph (b) of this section in case not all contaminated subsoils can be practicably removed at closure; and

(ii) Prepare a contingent post-closure plan under § 265.118 of this part for complying with paragraph (b) of this section in case not all contaminated subsoils can be practicably removed at closure.

(2) The cost estimates calculated under §§ 265.112 and 265.144 of this part for closure and post-closure care of a drip pad subject to this paragraph must include the cost of complying with the contingent closure plan and the contingent post-closure plan, but are not required to include the cost of expected closure under paragraph (a) of this section.

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

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

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

21.-22. Subpart B of part 270 is amended by adding § 270.22 as follows:

§ 270.22 Special part B information requirements for drip pads.

Except as otherwise provided by § 264.1 of this chapter, owners and operators of hazardous waste treatment, storage, or disposal facilities that collect, store, or treat hazardous waste on drip pads must provide the following additional information:

(a) A list of hazardous wastes placed or to be placed on each drip pad.

(b) If an exemption is sought to subpart F of part 264 of this chapter, as provided by § 264.90 of this chapter, detailed plans and an engineering report describing how the requirements of § 264.90(b)(2) of this chapter will be met.

(c) Detailed plans and an engineering report describing how the drip pad is or will be designed, constructed, operated and maintained to meet the requirements of § 264.572 of this chapter, including the as-built drawings and specifications. This submission must address the following items as specified in § 264.571 of this chapter:

(1) The design characteristics of the drip pad;

(2) The liner system;

(3) The leakage detection system, including the leak detection system and how it is designed to detect the failure of the drip pad or the presence of any releases of hazardous waste or accumulated liquid at the earliest practicable time;

(4) Practices designed to maintain drip pads;

(5) The associated collection system;

(6) Control of run-on to the drip pad;

(7) Control of run-off from the drip pad;

(8) The interval at which drippage and other materials will be removed from the associated collection system and a statement demonstrating that the interval will be sufficient to prevent overflow onto the drip pad;

(9) Procedures for cleaning the drip pad at least once every seven days to ensure the removal of any accumulated residues of waste or other materials, including but not limited to rinsing, washing with detergents or other appropriate solvents, or steam cleaning and provisions for documenting the date, time, and cleaning procedure used each time the pad is cleaned.

(10) Operating practices and procedures that will be followed to ensure that tracking of hazardous waste or waste constituents off the drip pad due to activities by personnel or equipment is minimized;

(11) Procedures for ensuring that, after removal from the treatment vessel, treated wood from pressure and non-pressure processes is held on the drip pad until drippage has ceased, including recordkeeping practices;

(12) Provisions for ensuring that collection and holding units associated with the run-on and run-off control systems are emptied or otherwise managed as soon as possible after storms to maintain design capacity of the system;

(13) If treatment is carried out on the drip pad, details of the process equipment used, and the nature and quality of the residuals.

(14) A description of how each drip pad, including appurtenances for control of run-on and run-off, will be inspected in order to meet the requirements of § 264.572 of this chapter. This information should be included in the inspection plan submitted under § 270.14(b)(5) of this part.

(15) A certification signed by an independent qualified, registered professional engineer, stating that the drip pad design meets the requirements of paragraphs (a) through (f) of § 264.571 of this chapter.

(16) A description of how hazardous waste residues and contaminated materials will be removed from the drip pad at closure, as required under § 264.573(a) of this chapter. For any waste not to be removed from the drip pad upon closure, the owner or operator must submit detailed plans and an engineering report describing how § 264.310 (a) and (b) of this chapter will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan submitted under § 270.14(b)(13).

PART 271-REQUIREMENTS FOR AUTHORIZATION OF STATE HAZARDOUS WASTE PROGRAMS

23. The authority citation for part 271 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), and 6926.

24. Section 271.1(j) is amended by adding the following entry to Table 1 in chronological order by date of publication and a new footnote 2 to read as follows:

§ 271.1 Purpose and scope.

* * * * *

(j) * * *

Table 1-Regulations Implementing the Hazardous and Solid Waste Amendments of 1984

Promulgation date	Title of regulation	Federal Register reference	Effective date
* * * * * * *			
December 6, 1990	The listing of wastes from wood preserving processes.[2]	[Insert FR publication citation]	June 6, 1991.
* * * * * * *			

[2]These regulations implement HSWA only to the extent that they apply to the listing of Hazardous Waste No. F032. Listings of Hazardous Waste Nos. F034 and F035, test methods for benzo(k)fluoranthene, and technical standards for drip pads do not implement HSWA.

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PART 302-DESIGNATION, REPORTABLE QUANTITIES, AND NOTIFICATION

25. The authority citation for part 302 continues to read as follows:

Authority: 42 U.S.C. 9602; 33 U.S.C. 1321 and 1361.

26. Section 302.4(a) is amended by adding the waste streams F032, F034, and F035 to Table 302.4 in alphanumeric order. The appropriate footnotes in Table 302.4 are republished without change.

§ 302.4 Designation of hazardous substances.

(a) * * *

Table 302.4-List of Hazardous Substances and Reportable Quantities

				Statutory			Final RQ	
	Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
*	* * * * *							
F032	Wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except wastes from processes that have had the F032 waste code deleted in accordance with § 261.35 and do not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.			1*	4	F032	X	1(0.454)
F034	Wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not			1*	4	F034	X	1(0.454)

	include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.						
F035	Wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.	1*	4	F035	X	1(0.454)	
*	* * * * * *						

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† indicates the statutory source as defined by 4 below.

1* indicates that the 1-pound RQ is a CERCLA statutory RQ.

4 indicates that the statutory source for designation of this hazardous substance under CERCLA is RCRA section 3001.

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