

- a. Assess and conduct the following:
 - (1) Assess the source of liquids and amounts of liquids by source;
 - (2) Conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and
 - (3) Assess the seriousness of any leaks in terms of potential for escaping into the environment; or
- b. Document why such assessments are not needed.

History: Effective July 1, 1997.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-128. Air emission standards. The owner or operator shall manage all hazardous waste placed in a surface impoundment in accordance with the requirements of sections 33-24-05-420 through 33-24-05-474.

History: Effective July 1, 1997; amended effective December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-129. [Reserved]

33-24-05-130. Applicability of waste pile requirements.

- 1. Sections 33-24-05-130 through 33-24-05-143 apply to owners or operators of facilities that store or treat hazardous waste in piles, except as section 33-24-05-01 provides otherwise.
- 2. Sections 33-24-05-130 through 33-24-05-143 do not apply to owners or operators of waste piles that are closed with wastes left in place. Such waste piles are subject to regulation under sections 33-24-05-176 through 33-24-05-200.
- 3. The owner or operator of any waste pile that is inside or under a structure that provides protection from precipitation so that neither runoff nor leachate is generated is not subject to regulation under section 33-24-05-131 or under sections 33-24-05-47 through 33-24-05-58, provided that:
 - a. Liquids or materials containing free liquids are not placed in the pile;

- b. The pile is protected from surface water run-on by the structure or in some other manner;
- c. The pile is designed and operated to control dispersal of the waste by wind, where necessary, by means other than wetting; and
- d. The pile will not generate leachate through decomposition or other reactions.

History: Effective January 1, 1984.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-131. Design and operating requirements.

- 1. A waste pile (except for an existing portion of a waste pile which qualifies for an exemption in accordance with subsection 2) must have:
 - a. A liner that is designed, constructed, and installed to prevent any migration of wastes out of the pile into the adjacent subsurface soil or ground water or surface water at any time during the active life (including the closure period) of the waste pile. The liner may be constructed of materials that may allow waste to migrate into the liner itself (but not into the adjacent subsurface soil or ground water or surface water) during the active life of the facility. The liner must be:
 - (1) 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 leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;
 - (2) 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
 - (3) Installed to cover all surrounding earth likely to be in contact with the waste or leachate; and
 - b. A leachate collection and removal system immediately above the liner that is designed, constructed, maintained, and operated to collect and remove leachate from the pile. The department will specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed one foot

[.3048 meters]. The leachate collection and removal system must be:

- (1) Constructed of materials that are:
 - (a) Chemically resistant to the waste managed in the pile and the leachate expected to be generated; and
 - (b) Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlaying wastes, waste cover materials, and by any equipment used at the pile; and
 - (2) Designed and operated to function without clogging through the scheduled closure of the waste pile.
2. The department, on a case-by-case basis, may exempt an existing portion of a hazardous waste pile from subsection 1 if the owner or operator demonstrate that the owner's or operator's existing design or operating practices, together with the location of the facility, will prevent migration of any hazardous constituents into the ground water or surface water during the active life of the facility (including the closure period).
 3. The owner or operator of each new waste pile unit on which construction commences after January 29, 1992, each lateral expansion of a waste pile unit on which construction commences after July 29, 1992, and each replacement of an existing waste pile unit that is to commence reuse after July 29, 1992, must install two or more liners and a leachate collection and removal system above and between such liners. "Construction commences" is as defined in section 33-24-01-04 under "existing facility".
 - a. Liners.
 - (1) The liner system must include:
 - (a) A top liner designed and constructed of materials (for example, a geomembrane) to prevent the migration of hazardous constituents into such liner during the active life and postclosure care period; and
 - (b) A composite bottom liner, consisting of at least two components. The upper component must be designed and constructed of materials (for example, a geomembrane) to prevent the migration of hazardous constituents into this component during the active life and postclosure care period. The lower component must be designed and constructed of materials to

minimize the migration of hazardous constituents if a breach in the upper component were to occur. The lower component must be constructed of at least three feet [91.44 centimeters] of compacted soil material with a hydraulic conductivity of no more than 1×10^{-7} centimeters per second.

- (2) The liners must comply with paragraphs 1, 2, and 3 of subdivision a of subsection 1.
- b. The leachate collection and removal system immediately above the top liner must be designed, constructed, operated, and maintained to collect and remove leachate from the waste pile during the active life and postclosure care period. The department will specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed one foot [.3048 meters]. The leachate collection and removal system must comply with paragraphs 3 and 4 of subdivision c of subsection 3.
 - c. The leachate collection and removal system between the liners, and immediately above the bottom composite liner in the case of multiple leachate collection and removal systems, is also a leak detection system. This leak detection system must be capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest practicable time through all areas of the top liner likely to be exposed to waste or leachate during the active life and postclosure care period. The requirements for a leak detection system in this paragraph are satisfied by installation of a system that is, at a minimum:
 - (1) Constructed with a bottom slope of one percent or more;
 - (2) Constructed of granular drainage materials with a hydraulic conductivity of 1×10^{-2} centimeters per second or more and a thickness of twelve inches [30.5 centimeters] or more; or constructed of synthetic or geonet drainage materials with a transmissivity of 3×10^{-5} square meters per second or more;
 - (3) Constructed of materials that are chemically resistant to the waste managed in the waste pile and the leachate expected to be generated, and of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials, and equipment used at the waste pile;
 - (4) Designed and operated to minimize clogging during the active life and postclosure care period; and

- (5) Constructed with sumps and liquid removal methods (for example, pumps) of sufficient size to collect and remove liquids from the sump and prevent liquids from backing up into the drainage layer. Each unit must have its own sump or sumps. The design of each sump and removal system must provide a method for measuring and recording the volume of liquids present in the sump and of liquids removed.
- d. The owner or operator shall collect and remove pumpable liquids in the leak detection system sumps to minimize the head on the bottom liner.
- e. The owner or operator of a leak detection system that is not located completely above the seasonal high water table must demonstrate that the operation of the leak detection system will not be adversely affected by the presence of ground water.
- 4. The department may approve alternative design or operating practices to those specified in subsection 3 if the owner or operator demonstrates to the department that such design and operating practices, together with location characteristics:
 - a. Will prevent the migration of any hazardous constituent into the ground water or surface water at least as effectively as the liners and leachate collection and removal systems specified in subsection 3; and
 - b. Will allow detection of leaks of hazardous constituents through the top liner at least as effectively.
- 5. Subsection 3 does not apply to monofills that are granted a waiver by the department in accordance with subsection 5 of section 33-24-05-119.
- 6. The owner or operator of any replacement waste pile unit is exempt from subsection 3 if:
 - a. The existing unit was constructed in compliance with the design standards of section 3004(o)(1)(A)(i) and (o)(5) of the Resource Conservation and Recovery Act; and
 - b. There is no reason to believe that the liner is not functioning as designed.
- 7. The owner or operator will be exempted from the requirements of subsection 1, if the department finds, based on a demonstration by the owner or operator, that alternate design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents (see section 33-24-05-50) into the ground

water or surface water at any future time. In deciding whether to grant an exemption, the department will consider:

- a. The nature and quantity of the waste;
 - b. The proposed alternate design and operation;
 - c. The hydrogeologic setting of the facility, including attenuative capacity and thickness of the liners and soils present between the pile and ground water or surface water; and
 - d. All other factors which would influence the quality and mobility of the leachate produced and the potential for it to migrate to ground water or surface water.
8. The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portions of the pile during peak discharge from at least a twenty-five-year storm.
 9. The owner or operator must design, construct, operate, and maintain a runoff management system to collect and control at least the water volume resulting from a twenty-four-hour, twenty-five-year storm.
 10. Collection and holding facilities (for example, tanks or basins) associated with run-on and runoff control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.
 11. If the pile contains any particulate matter which may be subject to wind dispersal, the owner or operator shall cover or otherwise manage the pile to control wind dispersal.
 12. The department will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this section are satisfied.

History: Effective January 1, 1984; amended effective December 1, 1988; January 1, 1994; July 1, 1997.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-132. Monitoring and inspection.

1. During construction or installation, liners (except in the case of existing portions of piles exempt from subsection 1 of section 33-24-05-131) and cover systems (for example, membranes, sheets, or coatings) must be inspected for uniformity, damage, and imperfections, for

example, holes, cracks, thin spots, or foreign materials. Immediately after construction or installation:

- a. Synthetic liners and covers must be inspected by an independent, qualified professional to ensure tight seams and joints and the absence of tears, punctures, or blisters; and
 - b. Soil-based and admixed liners and covers must be inspected by an independent, qualified professional for imperfections including lenses, cracks, channels, root holes, or other structural nonuniformities that may cause an increase in the permeability of the liner or cover.
2. While a waste pile is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:
 - a. Deterioration, malfunctions, or improper operation of run-on and runoff control systems;
 - b. The presence of liquids in leak detection systems where installed;
 - c. Proper functioning of wind dispersal control systems where present; and
 - d. The presence of leachate in and proper functioning of leachate collection and removal systems where present.
3. An owner or operator required to have a leak detection system under subsection 3 of section 33-24-05-131 must record the amount of liquids removed from each leak detection system sump at least once each week during the active life and closure period.
4. If, during the periodic removal of wastes from the pile and inspection of the underlying liner in accordance with subdivision b of subsection 1 of section 33-24-05-131, any deterioration, crack, or other condition is identified that is causing or could cause a leak, the owner or operator shall:
 - a. Notify the department of the condition in writing within seven days after detecting the condition; and
 - b. Repair or replace the liner (base) and obtain a certification from a qualified engineer that to the best of his knowledge and opinion the liner (base) has been repaired and leakage will not occur.

History: Effective January 1, 1984; amended effective December 1, 1988; January 1, 1994; July 1, 1997.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-133. Special requirements for ignitable or reactive waste. Ignitable or reactive waste may not be placed in a waste pile unless the waste or waste pile satisfies all applicable requirements of sections 33-24-05-250 through 33-24-05-299.

1. The waste is treated, rendered, or mixed before or immediately after placement in the pile so that:
 - a. The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under section 33-24-02-11 or 33-24-02-13; and
 - b. Subsection 2 of section 33-24-05-08 is complied with; or
2. The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

History: Effective January 1, 1984; amended effective December 1, 1991.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-134. Special requirements for incompatible wastes.

1. Incompatible wastes, or incompatible wastes and materials, may not be placed in the same pile unless subsection 2 of section 33-24-05-08 is complied with.
2. A pile of hazardous waste that is incompatible with any waste or other material stored nearby in containers, other piles, open tanks, or surface impoundments must be separated from the other material, or protected from them by means of a dike, berm, wall, or other device.
3. Hazardous waste must not be piled on the same base where incompatible wastes or materials were previously piled, unless the base has been decontaminated sufficiently to ensure compliance with subsection 2 of section 33-24-05-08.

History: Effective January 1, 1984; amended effective December 1, 1988.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-135. Closure and postclosure care.

1. At closure, the owner or operator must remove or decontaminate all waste residue, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless subsection 4 of section 33-24-02-03 applies.

2. If, after removing or decontaminating all residues and making all reasonable efforts to affect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in subsection 1, the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, the owner or operator shall close the facility and perform postclosure care in accordance with the closure and postclosure care requirements that apply to landfills (section 33-24-05-180).
3. In addition:
 - a. The owner or operator of a waste pile that does not comply with the liner requirements of subsection 2 of section 33-24-05-131 and is not exempt from them in accordance with subsection 3 of section 33-24-05-130 or subsection 5 of section 33-24-05-131, shall:
 - (1) Include in the closure plan for the pile under section 33-24-05-61 both a plan for complying with subsection 1 and a contingent plan for complying with subsection 2 in case not all contaminated subsoil can be practicably removed at closure; and
 - (2) Prepare a contingent postclosure plan under section 33-24-05-67 for complying with subsection 2 in case not all contaminated subsoil can be practicably removed at closure.
 - b. The cost estimates calculated under section 33-24-05-76 for closure and postclosure care of a pile subject to this subsection must include the cost of complying with the contingent closure plan and the contingent postclosure plan in addition to the cost of expected closure under subsection 1.

History: Effective January 1, 1984; amended effective December 1, 1988.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-136. Special requirements for hazardous wastes F020, F021, F022, F023, F026, and F027.

1. Hazardous wastes F020, F021, F022, F023, F026, and F027 must not be placed in waste piles that are not enclosed (as defined in subsection 3 of section 33-24-05-130) unless the owner or operator operates the waste pile in accordance with a management plan for these wastes that is approved by the department pursuant to the standards set out in this section and in accord with all other applicable requirements of this chapter. The factors to be considered are:

- a. The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;
 - b. The attenuative properties of underlying and surrounding soils or other materials;
 - c. The mobilizing properties of other materials codisposed with these wastes; and
 - d. The effectiveness of additional treatment, design, or monitoring techniques.
2. The department may determine that additional design, operating, and monitoring requirements are necessary for piles managing hazardous wastes F020, F021, F022, F023, F026, and F027 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

History: Effective October 1, 1986; amended effective December 1, 1988.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-137. Action leakage rate.

1. The department shall approve an action leakage rate for surface impoundment units subject to subsection 3 or 4 of section 33-24-05-131. The action leakage rate is the maximum design flow rate that the leak detection system (LDS) can remove without the fluid head on the bottom liner exceeding one foot [.3048 meters]. The action leakage rate must include an adequate safety margin to allow for uncertainties in the design (for example, slope, hydraulic conductivity, thickness of drainage material), construction, operation, and location of the leak detection system, waste and leachate characteristics, likelihood and amounts of other sources of liquids in the leak detection system, and proposed response actions (for example, the action leakage rate must consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressures, etc.).
2. To determine if the action leakage rate has been exceeded, the owner or operator must convert the weekly flow rate from the monitoring data obtained under subsection 3 of section 33-24-05-132 to an average daily flow rate (gallons per acre per day) for each sump. Unless the department approves a different calculation, the average daily flow rate

for each sump must be calculated weekly during the active life and closure period.

History: Effective January 1, 1994; amended effective July 1, 1997.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-138. Response actions.

1. The owner or operator of waste pile units subject to subsection 3 or 4 of section 33-24-05-131 must have an approved response action plan before receipt of waste. The response action plan must set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan must describe the actions specified in subsection 2.
2. If the flow rate into the leak detection system exceeds the action leakage rate for any sump, the owner or operator must:
 - a. Notify the department in writing of the exceedance within seven days of the determination;
 - b. Submit a preliminary written assessment to the department within fourteen days of the determination, as to the amount of liquids, likely sources of liquids, possible location, size, and cause of any leaks, and short-term actions taken and planned;
 - c. Determine to the extent practicable the location, size, and cause of any leak;
 - d. Determine whether waste receipt should cease or be curtailed, whether any waste should be removed from the unit for inspection, repairs, or controls, and whether or not the unit should be closed;
 - e. Determine any other short-term and long-term actions to be taken to mitigate or stop any leaks; and
 - f. Within thirty days after the notification that the action leakage rate has been exceeded, submit to the department the results of the analyses specified in subdivisions c, d, and e of subsection 2, the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the owner or operator must submit to the department a report summarizing the results of any remedial actions taken and actions planned.
3. To make the leak or remediation determinations, or both, in subdivisions c, d, and e of subsection 2, the owner or operator must:

- a. Assess and conduct the following:
 - (1) Assess the source of liquids and amounts of liquids by source;
 - (2) Conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and
 - (3) Assess the seriousness of any leaks in terms of potential for escaping into the environment; or
- b. Document why such assessments are not needed.

History: Effective January 1, 1994.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

~~33-24-05-139. [Reserved]~~

~~33-24-05-140. [Reserved]~~

~~33-24-05-141. [Reserved]~~

~~33-24-05-142. [Reserved]~~

~~33-24-05-143. [Reserved]~~

33-24-05-144. Applicability of incinerator requirements.

- 1. Sections 33-24-05-144 through 33-24-05-159 apply to owners or operators of hazardous waste incinerators, except as section 33-24-05-01 provides otherwise.
- 2. Integration of the maximum achievable control technology standards.
 - a. Except as provided by subdivisions b, c, and d, the standards of sections 33-24-05-144 through 33-24-05-159 no longer apply when an owner or operator demonstrates compliance with the maximum achievable control technology requirements of 40 CFR part 63, subpart EEE by conducting a comprehensive performance test and submitting to the department a notification of compliance under 40 CFR sections 63.1207(j) and 63.1210(b) documenting compliance with the requirements of 40 CFR part 63, subpart EEE. Nevertheless, even after this demonstration of compliance with the maximum achievable control technology standards, permit conditions that were based on the standards of sections 33-24-05-01 through 33-24-05-190, 33-24-05-300

through 33-24-05-524, and 33-24-05-800 through 33-24-05-819 will continue to be in effect until they are removed from the permit or the permit is terminated or revoked, unless the permit expressly provides otherwise.

- b. The maximum achievable control technology standards do not replace the closure requirements of section 33-24-05-151 or the applicable requirements of sections 33-24-05-01 through 33-24-05-88 and sections 33-24-05-420 through 33-24-05-474.
 - c. The particulate matter standard of subsection 3 of section 33-24-05-147 remains in effect for incinerators that elect to comply with the alternative to the particulate matter standard in 40 CFR section 63.1206(b)(14).
 - d. The following requirements remain in effect for startup, shutdown, and malfunction events if a permittee elects to comply with paragraph 1 of subdivision a of subsection 1 of section 33-24-06-100 to minimize emissions of toxic compounds from these events:
 - (1) Subsection 1 of section 33-24-05-100 requiring that an incinerator operate in accordance with operating requirements specified in the permit; and
 - (2) Subsection 3 of section 33-24-06-100 requiring compliance with emission standards and operating requirements during startup and shutdown if hazardous waste is in the combustion chamber, except for particular hazardous wastes.
3. After consideration of the waste analysis included with the permit application, and unless the department finds that the waste will pose a threat to human health or the environment when burned in an incinerator, the department may, on a case-by-case basis, exempt the applicant from some or all of the requirements of sections 33-24-05-144 through 33-24-05-159, except sections 33-24-05-145 and 33-24-05-151 if:
- a. The waste to be burned is hazardous (either listed in or fails the characteristic tests in chapter 33-24-02) solely because it is:
 - (1) Ignitable, or corrosive, or both; or
 - (2) Reactive for characteristic other than those in subdivisions d and e of subsection 1 of section 33-24-02-13, and will not be burned when other hazardous wastes are present in the combustion zone; and

- b. The waste contains insignificant concentrations of the hazardous constituents listed in appendix V of chapter 33-24-02.
4. The owner or operator of an incinerator may conduct trial burns subject only to the requirements of subsection 2 of section 33-24-06-19.
5. If the waste to be burned is one which is described by subdivision a, b, c, or d of subsection 2 and contains insignificant concentrations of the hazardous constituents listed in appendix V of chapter 33-24-02, then the department may, in establishing permit conditions, exempt the applicant from all requirements of sections 33-24-05-144 through 33-24-05-159, except sections 33-24-05-145 (waste analysis) and 33-24-05-151 (closure), after consideration of the waste analysis included in the permit application, unless the department finds that the waste will pose a threat to human health and the environment when burned in an incinerator.

History: Effective January 1, 1984; amended effective October 1, 1986; December 1, 1988; July 1, 1997; December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-145. Waste analysis.

1. As a portion of the trial burn plan or with the permit application, the owner or operator shall have included an analysis of the waste feed sufficient to provide all information required by subdivision b of subsection 2 of section 33-24-06-19 or subdivision w of subsection 2 of section 33-24-06-17. Owners and operators of new hazardous waste incinerators shall provide the information required by subdivision c of subsection 2 of section 33-24-06-19 or subdivision w of subsection 2 of section 33-24-06-17 to the greatest extent possible.
2. Throughout normal operation the owner or operator shall conduct sufficient waste analysis to verify that waste feed to the incinerator is within the physical and chemical composition limit specified in the permit (under subsection 2 of section 33-24-05-149).

History: Effective January 1, 1984.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-146. Designation of principal organic hazardous constituents.

1. Principal organic hazardous constituents in the waste feed must be treated to the extent required by the performance standard specified in section 33-24-05-147.

2. Designation of principal organic hazardous constituents.

- a. For each waste feed to be burned, one or more principal organic hazardous constituents will be specified in the facility's permit from among those constituents listed in chapter 33-24-02, appendix V. This specification will be based on the degree of difficulty of incineration of the organic constituents in the waste and on their concentration or mass in the waste feed, considering the results of waste analysis and trial burns or alternative data submitted with the facility's permit application. Organic constituents which represent the greatest degree of difficulty of incineration will be those most likely to be designated as principal organic hazardous constituents. Constituents are more likely to be designated as principal organic hazardous constituents if they are present in large quantities or concentrations in the waste.
- b. Trial principal organic hazardous constituents will be designated for performance of trial burns in accordance with the procedure for obtaining trial burn permits in subsection 2 of section 33-24-06-19.

History: Effective January 1, 1984; amended effective December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-147. Performance standards. An incinerator burning hazardous waste must be designed, constructed, and maintained so that when operated in accordance with operating requirements specified under section 33-24-05-149 it will meet the following performance standards:

1. a. Except as provided in subdivision b, an incinerator burning hazardous waste must achieve a destruction and removal efficiency of ninety-nine and ninety-nine one hundredths percent for each principal organic hazardous constituent designated (under section 33-24-05-146) in its permit for each waste feed. The destruction and removal efficiency is determined for each principal organic hazardous constituent from the following equation:

$$DRE = \frac{(W_{in} - W_{out})}{W_{in}} \times 100\%$$

where:

W_{in} = mass feed rate of one principal organic constituent in the waste stream feeding the incinerator, and

W_{out} = mass emission rate of the same principal organic hazardous constituent present in exhaust emissions prior to release to the atmosphere.

- b. An incinerator burning wastes F020, F021, F022, F023, F026, or F027 must achieve a destruction and removal efficiency of ninety-nine and nine thousand nine hundred and ninety-nine ten thousandths percent for each principal organic hazardous constituent designated (under section 33-24-05-146) in its permit. This performance must be demonstrated on principal organic hazardous constituents that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-p-dioxins and dibenzofurans. Destruction and removal efficiency is determined for each principal organic hazardous constituent from the equation in subdivision a. In addition, the owner or operator of the incinerator must notify the department of his or her intent to incinerate hazardous wastes F020, F021, F022, F023, F026, and F027.
2. An incinerator burning hazardous waste and producing stack emissions of more than one and eight-tenths kilograms per hour [4 pounds per hour] of hydrogen chloride must control hydrogen chloride emissions such that the rate of emission is no greater than the larger of either one and eight-tenths kilograms per hour or one percent of the hydrogen chloride in the stack gas prior to entering any pollution control equipment.
3. An incinerator burning hazardous waste must not emit particulate matter in excess of one hundred eighty milligrams per dry standard cubic meter [0.08 grains per dry standard cubic foot] when corrected for the amount of oxygen in the stacks according to the formula:

$$P_c = P_M \times \frac{14}{21-Y}$$

where:

P_c = the corrected concentration of particulate matter,

P_M = the measured concentration of particulate matter, and

Y = the measured concentration of oxygen in the stack gas using the Orsat method for oxygen analysis of dry flue gas presented in 40 CFR, part 60, appendix A (method 3) of the federal air pollution control regulations. This correction procedure is to be used by all hazardous waste incinerators except those operating under conditions of oxygen enrichment. For these facilities, the department will select an appropriate correction procedure to be specified in the facility permit.

4. For purposes of permit enforcement, compliance with the operating requirements specified in the permit under section 33-24-05-149 will be regarded as compliance with this section. However, evidence that compliance with those permit conditions is insufficient to ensure

compliance with the performance requirements of this section may be "information" justifying modification, revocation, or reissuance of a permit under section 33-24-06-12.

History: Effective January 1, 1984; amended effective October 1, 1986; December 1, 1988; December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-148. Hazardous waste incinerator permits.

1. The owner or operator of a hazardous waste incinerator may burn only waste specified in the permit and only under operating conditions specified for those wastes under section 33-24-05-149, except:
 - a. In approved trial burns under subsection 2 of section 33-24-06-19; or
 - b. Under exemptions created by section 33-24-05-144.
2. Other hazardous wastes may be burned only after operating conditions have been specified in a new permit or a permit modification as applicable. Operating requirements for new wastes may be based on either trial burn results or alternative data included with the permit application under subdivision w of subsection 2 of section 33-24-06-17.
3. The permit for a new hazardous waste incinerator must establish appropriate conditions for each of the applicable requirements of sections 33-24-05-144 through 33-24-05-159, including, but not limited to, allowable waste feeds in operating conditions necessary to meet the requirements of section 33-24-05-149, sufficient to comply with the following standards:
 - a. For the period beginning with initial introduction of hazardous waste to the incinerator and ending with initiation of the trial burn, and only for the minimum time required to establish operating conditions required in subdivision b of this subsection, not to exceed a duration of seven hundred twenty hours operating time for treatment of hazardous waste, the operating requirements must be those most likely to ensure compliance with the performance standards of section 33-24-05-147, based on the department's engineering judgment. The department may extend the duration of this period once for up to seven hundred twenty additional hours when good cause for the extension is demonstrated by the applicant.
 - b. For the duration of the trial burn the operating requirements must be sufficient to demonstrate compliance with the performance

standards of section 33-24-05-147 and must be in accordance with the approved trial burn plan.

- c. For the period immediately following completion of the trial burn and only for the minimum period sufficient to allow sample analysis, data computation, and submission of the trial burn results by the applicant, and review of the trial burn results and modification of the facility permit by the department, the operating requirements must be those most likely to ensure compliance with performance standards of section 33-24-05-147 based on the department's engineering judgment.
- d. For the remaining duration of the permit, the operating requirements must be those demonstrated in a trial burn or by alternative data specified in paragraph 3 of subdivision w of subsection 2 of section 33-24-06-17 as sufficient to ensure compliance with the performance standards of section 33-24-05-147.

History: Effective January 1, 1984; amended effective December 1, 1988.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-149. Operating requirements.

- 1. An incinerator must be operated in accordance with operating requirements specified in the permit. These will be specified on a case-by-case basis as those demonstrated (in a trial burn or in alternative data as specified in subsection 2 of section 33-24-05-148 and included with a facility's permit application) to be sufficient to comply with the performance standards of section 33-24-05-147.
- 2. Each set of operating requirements will specify the composition of the waste feed (including acceptable variations in the physical or chemical properties of the waste feed which will not affect compliance with the performance requirement of section 33-24-05-147) to which the operating requirements apply. For each such waste feed, the permit will specify acceptable operating limits including the following conditions:
 - a. Carbon monoxide level in the stack exhaust gas;
 - b. Waste feed rate;
 - c. Combustion temperature;
 - d. An appropriate indicator of combustion gas velocity;
 - e. Allowable variation in incinerator system design or operating procedures; and

- f. Such operating requirements as are necessary to ensure that the performance standards of section 33-24-05-147 are met.
- 3. During startup and shutdown of an incinerator, hazardous waste (except waste exempted in accordance with section 33-24-05-144) may not be fed into the incinerator unless the incinerator is operating within the conditions of operation, (temperature, air feed rate, etc.) specified in the permit.
- 4. Fugitive emissions from the combustion zone must be controlled by:
 - a. Keeping the combustion zone totally sealed against fugitive emissions;
 - b. Maintaining a combustion zone pressure lower than atmospheric pressure; or
 - c. An alternate means of control demonstrated (with the permit application) to provide fugitive emissions control equivalent to maintenance of combustion zone pressure lower than atmospheric pressure.
- 5. An incinerator must be operated with a functioning system to automatically cut off waste feed to the incinerator when operating conditions deviate from limits established under subsection 1.
- 6. An incinerator must cease operation when changes in waste feed, incinerator design, or operating conditions exceed limits designated in its permit.

History: Effective January 1, 1984; amended effective December 1, 1988.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-150. Monitoring and inspections.

- 1. The owner or operator shall conduct, at a minimum, the following monitoring while incinerating hazardous waste:
 - a. Combustion temperature, waste feed rate, and the indicator of combustion gas velocity specified in the permit must be monitored on a continuous basis;
 - b. Carbon monoxide must be monitored on a continuous basis at a point in the incinerator downstream of the combustion zone and prior to release to the atmosphere; and
 - c. Upon request by the department, sampling and analysis of the waste and exhaust emissions must be conducted to verify that

the operating requirements established in the permit achieve the performance standards of section 33-24-05-147.

2. The incinerator and associated equipment (pumps, valves, conveyors, pipes, etc.) must be completely inspected at least daily for leaks, spills, fugitive emissions, and signs of tampering.
3. The emergency waste feed cutoff system and associated alarms must be tested at least weekly to verify operability, unless the applicant demonstrates to the department that weekly inspections will unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, operational testing must be conducted monthly.
4. This monitoring and inspection data must be recorded and the records must be placed in the operating log required by section 33-24-05-40.

History: Effective January 1, 1984; amended effective December 1, 1988.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-151. Closure. At closure the owner or operator shall remove all hazardous waste and hazardous waste residues (including, but not limited to, ash, scrubber waters, and scrubber sludges) from the incinerator site.

History: Effective January 1, 1984.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

~~**33-24-05-152. [Reserved]**~~

~~**33-24-05-153. [Reserved]**~~

~~**33-24-05-154. [Reserved]**~~

~~**33-24-05-155. [Reserved]**~~

~~**33-24-05-156. [Reserved]**~~

~~**33-24-05-157. [Reserved]**~~

~~**33-24-05-158. [Reserved]**~~

~~**33-24-05-159. [Reserved]**~~

33-24-05-160. Applicability of land treatment requirements. Sections 33-24-05-160 through 33-24-05-175 apply to owners and operators of facilities that

treat or dispose of hazardous waste in land treatment units, except as section 33-24-05-01 provides otherwise.

History: Effective January 1, 1984.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-161. Treatment program.

1. An owner or operator subject to sections 33-24-05-160 through 33-24-05-175 shall establish a land treatment program that is designed to ensure that hazardous constituents placed in or on the treatment zone are degraded, transformed, or immobilized within the treatment zone. The department will specify in the facility permit the elements of the treatment program, including:
 - a. The wastes that are capable of being treated at the unit based on a demonstration under section 33-24-05-162;
 - b. Design measures and operating practices necessary to maximize the success of degradation, transformation, and the immobilization processes in the treatment zone in accordance with subsection 1 of section 33-24-05-163; and
 - c. Unsaturated zone monitoring provisions meeting the requirements of section 33-24-05-165.
2. The department will specify in the facility permit the hazardous constituents that must be degraded, transformed, or immobilized under this chapter. Hazardous constituents are constituents identified in appendix V of chapter 33-24-02 that are reasonably expected to be in or derived from waste placed in or on the treatment zone.
3. The department will specify the vertical and horizontal dimensions of the treatment zone in the facility permit. The treatment zone is the portion of the unsaturated zone below and including the land surface in which the owner or operator intends to maintain the conditions necessary for effective degradation, transformation, or immobilization of hazardous constituents. The maximum depth of the treatment zone must be:
 - a. No more than one and five-tenths meters [5 feet] from the initial soil surface; and
 - b. More than one meter [3 feet] above the seasonal high water table.

History: Effective January 1, 1984; amended effective December 1, 1988.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-162. Treatment demonstration.

1. For each waste that will be applied to the treatment zone, the owner or operator shall demonstrate prior to application of the waste that hazardous constituents in the waste can be completely degraded, transformed, or immobilized in the treatment zone.
2. In making this demonstration, the owner or operator may use field tests, laboratory analyses, available data, or, in the case of existing units, operating data. If the owner or operator intends to conduct field tests or laboratory analyses in order to make the demonstration required under subsection 1 of this section the owner or operator shall obtain a treatment or disposal permit under subsection 3 of section 33-24-06-19. The department will specify in this permit the testing, analytical, design, and operating requirements (including the duration of the tests and analyses, and, in the case of field tests, the horizontal and vertical dimensions of the treatment zone, monitoring procedures, closure and cleanup activities) necessary to meet the requirements in subsection 3.
3. Any field test or laboratory analysis conducted in order to make a demonstration under subsection 1 must:
 - a. Accurately simulate the characteristics and operating conditions for the proposed land treatment unit including:
 - (1) The characteristics of the waste (including the presence of constituents in appendix V of chapter 33-24-02);
 - (2) The climate of the area;
 - (3) The topography of the surrounding area;
 - (4) The characteristics of the soil in the treatment zone (including depth); and
 - (5) The operating practices to be used at the unit;
 - b. Be likely to show that hazardous constituents in the waste to be tested will be completely degraded, transformed, or immobilized in the treatment zone of the proposed land treatment unit; and
 - c. Be conducted in a manner that protects human health and the environment considering:
 - (1) The characteristics of the waste to be tested;
 - (2) The operating and monitoring measures to be taken during the course of the test;

- (3) The duration of the tests;
- (4) The volume of waste used in the test; and
- (5) In the case of field tests, the potential for the migration of hazardous constituents to ground water or surface water.

History: Effective January 1, 1984; amended effective December 1, 1988.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-163. Design and operating requirements. The department will specify in the facility permit how the owner or operator will design, construct, operate, and maintain the land treatment unit in compliance with this section.

1. The owner or operator shall design, construct, and maintain the unit to maximize the degradation, transformation, and immobilization of hazardous constituents in the treatment zone. The owner or operator shall design, construct, operate, and maintain the unit in accord with all design and operating conditions that were used in the treatment demonstration under section 33-24-05-162. At a minimum, the department will specify the following in the facility permit:
 - a. The rate and method of waste application to the treatment zone;
 - b. Measures to control soil pH;
 - c. Measures to enhance microbial or chemical reaction, for example, fertilization, tilling; and
 - d. Measures to control the moisture content of the treatment zone.
2. The owner or operator shall design, construct, operate, and maintain the treatment zone to minimize runoff from hazardous constituents during the active life of the land treatment unit.
3. The owner or operator shall design, construct, operate, and maintain a run-on control system capable of preventing flow onto the treatment zone during peak discharge from at least a twenty-five-year storm.
4. The owner or operator shall design, construct, operate, and maintain a runoff management system to collect and control at least the water volume resulting from a twenty-four-hour, twenty-five-year storm.
5. Collection and holding facilities, for example, tanks or basins, associated with the run-on and runoff control systems must be emptied or otherwise managed expeditiously after storms to maintain the design capacity of the system.

6. If the treatment zone contains particulate matter which may be subject to wind dispersal, the owner or operator shall manage the unit to control wind dispersal.
7. The owner or operator shall inspect the unit weekly and after storms to detect evidence of:
 - a. Deterioration, malfunctions, or improper operation of run-on or runoff control systems; and
 - b. Improper functioning of wind dispersal control measures.

History: Effective January 1, 1984; amended effective December 1, 1988; July 1, 1997.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-164. Food chain crops. The department may allow the growth of food chain crops in or on the treatment zone only if the owner or operator satisfies the conditions of this section. The department will specify in the facility permit the specific food chain crops which may be grown.

1. The owner or operator shall demonstrate that there is no substantial risk to human health caused by the growth of such crops in or on the treatment zone by demonstrating, prior to the planting of such crops, that hazardous constituents other than cadmium:
 - a. Will not be transferred to the food or feed portions of the crop by plant uptake or direct contact and will not otherwise be ingested by food chain animals, for example, by grazing; or
 - b. Will not occur in greater concentrations in or on the food or feed portions of crops grown on the treatment zone than in or on identical portions of the same crops grown on untreated soils under similar conditions in the same region.
2. The owner or operator shall make the demonstration required by subsection 1 prior to the planting of crops at the facility for all constituents identified in appendix V of chapter 33-24-02 that are reasonably expected to be in or derived from waste placed in or on the treatment zone.
3. In making a demonstration under subsection 1, the owner or operator may use field tests, greenhouse studies, available data, or in the case of existing units, operating data, and shall:
 - a. Base the demonstration on conditions similar to those present in the treatment zone, including soil characteristics (for example,

pH, cation exchange capacity), specific wastes, application rates, application methods, and crops to be grown;

- b. Describe the procedures used in conducting any tests, including the sample collection criteria, sample size, analytical methods, and statistical procedures.
4. If the owner or operator intends to conduct field tests or greenhouse studies in order to make the demonstration required under subsection 1, the owner or operator shall obtain a permit for conducting such activities.
5. The owner or operator shall comply with the conditions of either subdivision a or b if cadmium is contained in wastes applied to the treatment zone:
 - a. The following condition must be met:
 - (1) The pH of the waste and soil mixture must be 6.5 or greater at the time of each waste application, except for wastes containing cadmium in concentrations of two milligrams per kilogram (dry weight) or less;
 - (2) The annual application of cadmium from waste must not exceed five-tenths kilogram per hectare on land used for production of tobacco, leafy vegetables, or root crops grown for human consumption. For other food chain crops the annual cadmium rate may not exceed:
 - (a) Two kilograms per hectare through June 30, 1984;
 - (b) One and twenty-five-hundredths kilograms per hectare during the period from July 1, 1984, through December 31, 1986; or
 - (c) Five-tenths kilogram per hectare on and after January 1, 1987; and
 - (3) The cumulative application rate of cadmium from waste must not exceed five kilograms per hectare if the waste and soil mixture has a pH of less than 6.5; and
 - (4) If the waste and soil mixture has a pH of 6.5 or greater and is maintained at a pH of 6.5 or greater during crop growth, the cumulative application of cadmium from waste must not exceed: Five kilograms per hectare if soil cation exchange capacity is less than five milliequivalents per one hundred grams; ten kilograms per hectare if soil cation exchange capacity is five to fifteen milliequivalents per one hundred grams; and twenty kilograms per hectare if soil cation

exchange capacity is greater than fifteen milliequivalents per one hundred grams.

b. The following conditions must be met:

- (1) Animal feed must be the only food chain crop produced;
- (2) The pH of the waste and soil mixture must be 6.5 or greater at the time of waste application or at the time the crop is planted, whichever occurs later, and this pH level must be maintained whenever food chain crops are grown;
- (3) There must be an operating plan which demonstrates how the animal feed will be distributed to preclude ingestion by humans. The operating plan must describe the measures to be taken to safeguard against the possible health hazards from cadmium entering the food chain which may result from alternative land uses; and
- (4) Future property owners must be notified by stipulation in the land record or property deed which states that the property has received waste at high cadmium application rates and that food chain crops must not be grown, except in compliance with subdivision b.

History: Effective January 1, 1984; amended effective December 1, 1988; July 1, 1997.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-165. Unsaturated zone monitoring. An owner or operator subject to the land treatment requirements shall establish an unsaturated zone monitoring program to discharge the following responsibilities:

1. The owner or operator shall monitor the soil and soil-pore liquid to determine whether hazardous constituents migrate out of the treatment zone.
 - a. The hazardous constituents to be monitored are those specified under subsection 2 of section 33-24-05-161.
 - b. The department may require monitoring for principal hazardous constituents in lieu of the constituents specified under subsection 2 of section 33-24-05-161. Principal hazardous constituents are hazardous constituents contained in the waste to be applied at the unit that are the most difficult to treat, considering the combined effects of degradation, transformation, and immobilization. The department will establish principal hazardous constituents if it finds, based on waste analyses, treatment demonstrations, or other data

that effective degradation, transformation, or immobilization of the principal hazardous constituents will assure treatment of at least equivalent levels for the other hazardous constituents in the wastes.

2. The owner or operator must install an unsaturated zone monitoring system that includes soil monitoring using soil cores, and soil-pore liquid monitoring using devices such as lysimeters. The unsaturated zone monitoring system must consist of a sufficient number of sampling points at appropriate locations and depths to yield samples that:
 - a. Represent the quality of background soil-pore liquid quality and the chemical makeup of soil that has not been affected by leakage from the treatment zone; and
 - b. Indicate the quality of soil-pore liquid in the chemical makeup of the soil below the treatment zone.
3. The owner or operator shall establish a background value for each hazardous constituent to be monitored under subsection 1. The permit will specify the background values for each constituent or specify the procedures to be used to calculate the background values.
 - a. Background soil values may be based on a one-time sampling at a background plot having characteristics similar to that of the treatment zone.
 - b. Background soil-pore liquid values must be based on at least quarterly sampling for one year at a background plot having characteristics similar to those of the treatment zone.
 - c. The owner or operator shall express all background values in a form necessary for the determination of statistically significant increases under subsection 6.
 - d. In taking samples used in the determination of all background values, the owner or operator shall use an unsaturated zone monitoring system that complies with subdivision a of subsection 2.
4. The owner or operator shall conduct soil monitoring and soil-pore liquid monitoring immediately below the treatment zone. The department will specify the frequency and timing of soil and soil-pore liquid monitoring in the facility permit after considering the frequency, timing, and rate of waste application and the soil permeability. The owner or operator shall express the results of the soil and soil-pore liquid monitoring in a form necessary for the determination of statistically significant increases under subsection 6.

5. The owner or operator shall use consistent sampling and analysis procedures that are designed to ensure sampling results that provide a reliable indication of soil-pore liquid quality in the chemical makeup in the soil below the treatment zone. At a minimum, the owner or operator shall implement procedures and techniques for:
 - a. Sample collection;
 - b. Sample preservation and shipment;
 - c. Analytical procedures; and
 - d. Chain of custody control.
6. The owner or operator shall determine whether there is a statistically significant change over background values for any hazardous constituent to be monitored under subsection 1 below the treatment zone each time the owner or operator conducts soil monitoring and soil-pore liquid monitoring under subsection 4.
 - a. In determining whether a statistically significant increase has occurred, the owner or operator shall compare the value of each constituent as determined under subsection 4 to the background value for that constituent according to the statistical procedures specified in the facility permit under this subsection.
 - b. The owner or operator shall determine whether there has been a statistically significant increase below the treatment zone within a reasonable time period after completion of sampling. The department will specify that time period in the facility permit after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of the soil and soil-pore liquid samples.
 - c. The owner or operator shall determine whether there is a statistically significant increase below the treatment zone using a statistical procedure that provides reasonable confidence that migration from the treatment zone will be identified. The department will specify a statistical procedure in the facility permit that it finds:
 - (1) Is appropriate for the distribution of data used to establish background values; and
 - (2) Provides a reasonable balance between the probability of falsely identifying migration from the treatment zone and the probability of failing to identify real migration from the treatment zone.

7. If the owner or operator determines pursuant to subsection 6 that there is a statistically significant increase of hazardous constituents below the treatment zone, the owner or operator shall:
 - a. Notify the department of this finding in writing within seven days. The notification must indicate what constituents have shown statistically significant increases.
 - b. Within ninety days submit to the department an application for a permit modification to modify the operating practices at the facility in order to maximize the success of degradation, transformation, or immobilization processes in the treatment zone.
8. If the owner or operator determines pursuant to subsection 6 that there is a statistically significant increase of hazardous constituents below the treatment zone, the owner or operator may demonstrate that a source other than regulated units caused the increase or that the increase resulted from an error in sampling, analysis, or evaluation. While the owner or operator may make this demonstration in addition to, or in lieu of, submitting a permit modification application under subdivision b of subsection 7, the owner or operator is still required to submit a permit modification within the time specified in subdivision b of subsection 7 should the demonstration be unsuccessful. In making this demonstration the owner or operator shall:
 - a. Notify the department in writing within seven days of determining a statistically significant increase below the treatment zone that the owner or operator intends to make a determination under this subsection;
 - b. Within ninety days submit a report to the department demonstrating that a source other than the regulated units caused the increase or that the increase resulted in error in sampling analysis or evaluation;
 - c. Within ninety days submit to the department an application for permit modification to make any appropriate changes to the unsaturated zone monitoring program at the facility; and
 - d. Continue to monitor in accordance with the unsaturated zone monitoring program established under this section.

History: Effective January 1, 1984; amended effective December 1, 1988; December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-166. Recordkeeping. The owner or operator shall include hazardous waste application dates and rates in the operating record required under section 33-24-05-40.

History: Effective January 1, 1984.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-167. Closure and postclosure care.

1. During the closure period the owner or operator shall:
 - a. Continue all operations (including pH control) necessary to maximize degradation, transformation, or immobilization of hazardous constituents within the treatment zone as required under subsection 1 of section 33-24-05-163, except to the extent such measures are inconsistent with subdivision h of this subsection;
 - b. Continue all operations in the treatment zone to minimize runoff of hazardous constituents as required under subsection 2 of section 33-24-05-163;
 - c. Maintain the run-on control system required under subsection 3 of section 33-24-05-163;
 - d. Maintain the runoff management system required under subsection 4 of section 33-24-05-163;
 - e. Control wind dispersal of hazardous waste if required under subsection 6 of section 33-24-05-163;
 - f. Continue to comply with any prohibitions or conditions concerning growth of food chain crops under section 33-24-05-164;
 - g. Continue unsaturated zone monitoring in compliance with section 33-24-05-165, except that soil-pore liquid monitoring may be terminated one year after the last application of waste to the treatment zone if, during that year, the soil-pore liquid monitoring shows that no hazardous constituents are leaching from the treatment zone in the soil-pore water; and
 - h. Establish a vegetative cover on the portion of the facility being closed at such time that the cover will not substantially impede degradation, transformation, or immobilization of hazardous constituents in the treatment zone. The vegetative cover must be capable of maintaining growth without extensive maintenance.

2. For the purpose of complying with section 33-24-05-64, when closure is completed the owner or operator may submit to the department certification by an independent qualified soil scientist, in lieu of an independent registered professional engineer, that the facility has been closed in accordance with the specifications in the approved closure plan.
3. During the postclosure care period the owner or operator shall:
 - a. Continue all operations (including pH control) necessary to enhance degradation and transformation and sustain immobilization of hazardous constituents in the treatment zone to the extent that such measures are consistent with other postclosure care activities;
 - b. Maintain a vegetative cover over closed portions of the facility;
 - c. Maintain the run-on control system required under subsection 3 of section 33-24-05-163;
 - d. Maintain the runoff management system required under subsection 4 of section 33-24-05-163;
 - e. Control wind dispersal of hazardous waste if required under subsection 6 of section 33-24-05-163;
 - f. Continue to comply with any prohibitions or conditions concerning growth of food chain crops under section 33-24-05-164; and
 - g. Continue unsaturated zone monitoring in compliance with section 33-24-05-165 except that soil-pore liquid monitoring may be terminated one year after the last application of waste to the treatment zone if, during that year, the soil-pore liquid monitoring shows that no hazardous constituents are leaching from the treatment zone in the soil-pore water.
4. The owner or operator is not subject to regulation under subsection 3 or subdivision h of subsection 1 if the department finds that the level of hazardous constituents in the treatment zone soil does not exceed the background value of those constituents by an amount that is statistically significant when using the test specified in subdivision c of this subsection. The owner or operator may submit such a demonstration to the department at any time during the closure or postclosure care periods. For purposes of this subsection:
 - a. The owner or operator shall establish background soil values and determine whether there is a statistically significant increase over

those values for all hazardous constituents specified in the facility permit under subsection 2 of section 33-24-05-161:

- (1) Background soil values may be based on a one-time sampling of the background plot having characteristics similar to those of the treatment zone; and
 - (2) The owner or operator shall express background values and values for hazardous constituents in the treatment zone in a form necessary for the determination of statistically significant increases under subdivision c;
- b. In taking samples used in the determination of background and treatment zone values, the owner or operator shall take samples at a sufficient number of sampling points and at appropriate locations and depths to yield samples that represent the chemical makeup of soil that has not been affected by leakage from the treatment zone and the soil within the treatment zone, respectively; and
- c. In determining whether a statistically significant increase has occurred, the owner or operator shall compare the value of each constituent in the treatment zone to the background value of that constituent using a statistical procedure that provides reasonable confidence that constituent presence in the treatment zone will be identified. The owner or operator shall use a statistical procedure that:
 - (1) Is appropriate for the distribution of the data used to establish background values; and
 - (2) Provides a reasonable balance between the probability of falsely identifying hazardous constituent presence in the treatment zone and the probability of failing to identify a real presence in the treatment zone.
5. During closure or postclosure care, or both, the owner or operator is not subject to regulation under sections 33-24-05-47 through 33-24-05-58 if the department finds that the owner or operator satisfies subsection 4 of this section and if unsaturated zone monitoring under section 33-24-05-165 indicates that hazardous constituents have not migrated beyond the treatment zone during the active life of the land treatment unit.

History: Effective January 1, 1984; amended effective December 1, 1988.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-168. Special requirements for ignitable or reactive waste.
The owner or operator may not apply ignitable or reactive waste to the treatment

zone unless the waste and the treatment zone meet all applicable requirements of sections 33-24-05-250 through 33-24-05-299.

1. The waste is immediately incorporated into the soil so that:
 - a. The resulting waste mixture or dissolution of material no longer meets the definition of ignitable or reactive waste under section 33-24-02-11 or 33-24-02-13; and
 - b. Subsection 2 of section 33-24-05-08 is complied with; or
2. The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

History: Effective January 1, 1984; amended effective December 1, 1991.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-169. Special requirements for incompatible wastes. The owner or operator may not place incompatible wastes or incompatible wastes and materials in or on the same treatment zone unless subsection 2 of section 33-24-05-08 is complied with.

History: Effective January 1, 1984.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-170. Special requirements for hazardous wastes F020, F021, F022, F023, F026, and F027.

1. Hazardous wastes F020, F021, F022, F023, F026, and F027 must not be placed in a land treatment unit unless the owner or operator operates the facility in accordance with a management plan for these wastes that is approved by the department pursuant to the standards set out in this section, and in accord with all other applicable requirements of this chapter. The factors to be considered are:
 - a. The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;
 - b. The attenuative properties of underlying and surrounding soils or other materials;
 - c. The mobilizing properties of other materials codisposed with these wastes; and
 - d. The effectiveness of additional treatment, design, or monitoring techniques.

2. The department may determine that additional design, operating, and monitoring requirements are necessary for land treatment facilities managing hazardous wastes F020, F021, F022, F023, F026, and F027 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

History: Effective October 1, 1986; amended effective December 1, 1988.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

~~33-24-05-171. [Reserved]~~

~~33-24-05-172. [Reserved]~~

~~33-24-05-173. [Reserved]~~

~~33-24-05-174. [Reserved]~~

~~33-24-05-175. [Reserved]~~

33-24-05-176. Applicability of landfill requirements. Sections 33-24-05-176 through 33-24-05-200 apply to owners and operators of facilities that dispose of hazardous waste in landfills, except as section 33-24-05-01 provides otherwise.

History: Effective January 1, 1984.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-177. Design and operating requirements.

1. Any landfill that is not covered by subsection 3 must have a liner system for all portions of the landfill (except for existing portions of such landfill). The liner system must have:
 - a. A liner that is designed, constructed, and installed to prevent any migration of wastes out of the landfill to the adjacent subsurface soil or ground water or surface water at any time during the active life (including the closure period) of the landfill. The liner must be constructed of materials that prevent wastes from passing into the liner during the active life of the facility. The liner must be:
 - (1) 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 leachate to which they are exposed, climatic

conditions, the stress of installation, and the stress of daily operation;

- (2) 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
 - (3) Installed to cover all surrounding earth likely to be in contact with the waste or leachate; and
- b. A leachate collection and removal system immediately above the liner that is designed, constructed, maintained, and operated to collect and remove leachate from the landfill. The department will specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed one foot [.3048 meter]. The leachate collection and removal system must be:

- (1) Constructed of materials that are:
 - (a) Chemically resistant to the waste managed in the landfill and the leachate expected to be generated; and
 - (b) Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials, and by any equipment used at the landfill; and
 - (2) Designed and operated to function without clogging through the scheduled closure of the landfill.
2. The owner or operator will be exempted from the requirements of subsection 1 if the department finds, based on a demonstration by the owner or operator, that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents (see section 33-24-05-50) into the ground water or surface water at any future time. In deciding whether to grant an exemption, the department will consider:
- a. The nature and quantity of the waste;
 - b. The proposed alternate design and operation;
 - c. The hydrogeologic setting of the facility, including the attenuative capacity and thickness of the liners and soils present between the landfill and ground water and surface water; and

- d. All other factors which would influence the quality and mobility of the leachate produced and the potential for it to migrate to ground water or surface water.
3. The owner or operator of each new landfill unit on which construction commences after January 19, 1992, each lateral expansion of a landfill unit on which construction commences after July 29, 1992, and each replacement of an existing landfill unit that is to commence reuse after July 29, 1992, must install two or more liners and a leachate collection and removal system above and between such liners. "Construction commences" is as defined in section 33-24-01-04 under "existing facility".
- a. Liner.
 - (1) The liner system must include:
 - (a) A top liner designed and constructed of materials (for example, a geomembrane) to prevent the migration of hazardous constituents into such liner during the active life and postclosure care period; and
 - (b) A composite bottom liner, consisting of at least two components. The upper component must be designed and constructed of materials (for example, a geomembrane) to prevent the migration of hazardous constituents into this component during the active life and postclosure care period. The lower component must be designed and constructed of materials to minimize the migration of hazardous constituents if a breach in the upper component were to occur. The lower component must be constructed of at least three feet [91.44 centimeters] of compacted soil material with a hydraulic conductivity of no more than 1×10^{-7} centimeters per second.
 - (2) The liners must comply with paragraphs 1, 2, and 3 of subdivision a of subsection 1.
 - b. The leachate collection and removal system immediately above the top liner must be designed, constructed, operated, and maintained to collect and remove leachate from the landfill during the active life and postclosure care period. The department will specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed thirty centimeters [1 foot]. The leachate collection and removal system must comply with paragraphs 3 and 4 of subdivision c.

- c. The leachate collection and removal system between the liners, and immediately above the bottom composite liners in the case of multiple leachate collection and removal systems, is also a leak detection system. This leak detection system must be capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest practicable time through all areas of the top liner likely to be exposed to waste or leachate during the active life and postclosure care period. The requirements for a leak detection system in this subdivision are satisfied by installation of a system that is, at a minimum:
 - (1) Constructed with a bottom slope of one percent or more;
 - (2) Constructed of granular drainage materials with a hydraulic conductivity of 1×10^{-2} centimeters per second or more and a thickness of twelve inches [30.5 centimeters] or more; or constructed of synthetic or geonet drainage materials with a transmissivity of 3×10^{-5} square meters per second or more;
 - (3) Constructed of materials that are chemically resistant to the waste managed in the landfill and the leachate expected to be generated, and of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials, and equipment used at the landfill;
 - (4) Designed and operated to minimize clogging during the active life and postclosure care period; and
 - (5) Constructed with sumps and liquid removal methods (for example, pumps) of sufficient size to collect and remove liquids from the sump and prevent liquids from backing up into the drainage layer. Each unit must have its own sump or sumps. The design of each sump and removal system must provide a method for measuring and recording the volume of liquids present in the sump and of liquids removed.
 - d. The owner or operator shall collect and remove pumpable liquids in the leak detection system sumps to minimize the head on the bottom liner.
 - e. The owner or operator of a leak detection system that is not located completely above the seasonal high water table must demonstrate that the operation of the leak detection system will not be adversely affected by the presence of ground water.
4. The department may approve alternative design or operating practices to those specified in subsection 3 if the owner or operator demonstrates to the department that such design and operating practices, together with location characteristics:

- a. Will prevent the migration of any hazardous constituent into the ground water or surface water at least as effectively as the liners and leachate collection and removal systems specified in subsection 3; and
 - b. Will allow detection of leaks of hazardous constituents through the top liner at least as effectively.
- 5. The double-liner requirements set forth in subsection 3 may be waived by the department for any monofill, if:
 - a. The monofill contains only hazardous waste from foundry furnace emission controls or metal casting molding sand and such wastes do not contain constituents which would render the wastes hazardous for reasons other than the toxicity characteristics in section 33-24-02-14 with hazardous waste numbers D004 through D017; and
 - b. Monofill liner.
 - (1) Evidence of leaking.
 - (a) The monofill has at least one liner for which there is no evidence that such liner is leaking;
 - (b) The monofill is located more than one-quarter mile from an underground source of drinking water (as that term is defined in 40 CFR part 144.3); and
 - (c) The monofill is in compliance with generally acceptable ground water monitoring requirements for facilities with permits; or
 - (2) The owner or operator demonstrates that the monofill is located, designed, and operated so as to assure that there will be no migration of any hazardous constituent into ground water or surface water at any future time.
- 6. The owner or operator of any replacement landfill unit is exempt from subsection 3 if:
 - a. The existing unit was constructed in compliance with the design standards of section 3004(o)(1)(A)(i) and (o)(5) of the Resource Conservation and Recovery Act; and
 - b. There is no reason to believe that the liner is not functioning as designed.

7. The owner or operator shall design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the landfill during peak discharge from at least a twenty-five-year storm.
8. The owner or operator shall design, construct, operate, and maintain a runoff management system to collect and control at least the water volume resulting from a twenty-four-hour, twenty-five-year storm.
9. Collection and holding facilities (for example, tanks or basins) associated with run-on and runoff control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of this system.
10. If the landfill contains any particulate matter which may be subject to wind dispersal, the owner or operator shall cover or otherwise manage the landfill to control wind dispersal.
11. The department will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this section are satisfied.

History: Effective January 1, 1984; amended effective October 1, 1986; December 1, 1988; December 1, 1991; January 1, 1994; July 1, 1997; December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-178. Monitoring and inspection.

1. During construction or installation, the liners (except in the case of existing portions of landfills exempt from subsection 1 of section 33-24-05-177) and cover systems (for example, membranes, sheets or coatings) must be inspected for uniformity, damage, and imperfections (for example, holes, cracks, thin spots, or foreign materials) immediately after construction or installation:
 - a. Synthetic liners and covers must be inspected by a qualified professional (for example, a registered professional engineer) to ensure tight seams and joints and the absence of tears, punctures, or blisters; and
 - b. Soil based and admixed liners and covers must be inspected by a qualified professional (for example, a registered professional engineer) for imperfections, including lenses, cracks, channels, root holes, or other structural nonuniformities that may cause an increase in the permeability of the liner or cover.

2. While a landfill is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:
 - a. Deterioration, malfunctions, or improper operation of run-on and runoff control systems;
 - b. Proper functioning of wind dispersal control systems, where present; and
 - c. The presence of leachate in and proper functioning of leachate collection and removal systems, where present.
3. Leak detection system.
 - a. An owner or operator required to have a leak detection system under subsection 3 or 4 of section 33-24-05-177 must record the amount of liquids removed from each leak detection system sump at least once each week during the active life and closure period.
 - b. After the final cover is installed, the amount of liquids removed from each leak detection system sump must be recorded at least monthly. If the liquid level in the sump stays below the pump operating level for two consecutive months, the amount of liquids in the sumps must be recorded at least quarterly. If the liquid level in the sump stays below the pump operating level for two consecutive quarters, the amount of liquids in the sumps must be recorded at least semiannually. If at any time during the postclosure care period the pump operating level is exceeded at units on quarterly or semiannual recording schedules, the owner or operator must return to monthly recording of amounts of liquids removed from each sump until the liquid level again stays below the pump operating level for two consecutive months.
 - c. "Pump operating level" is a liquid level proposed by the owner or operator and approved by the department based on pump activation level, sump dimensions, and level that avoids backup into the drainage layer and minimizes head in the sump.

History: Effective January 1, 1984; amended effective October 1, 1986; December 1, 1988; January 1, 1994; July 1, 1997; December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-179. Surveying and recordkeeping. The owner or operator of a landfill shall maintain the following items in the operating records required under section 33-24-05-40:

1. On a map, the exact location and dimensions, including depth, of each cell with respect to permanently surveyed bench marks; and

2. The contents of each cell and the approximate location of each hazardous waste type within each cell.

History: Effective January 1, 1984; amended effective December 1, 1988.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-180. Closure and postclosure care.

1. At final closure of the landfill or upon closure of any cell, the owner or operator shall cover the landfill or cell with a final cover designed and constructed to:
 - a. Provide long-term minimization of migration of liquids through the closed landfill;
 - b. Function with minimum maintenance;
 - c. Promote drainage and minimize erosion or abrasion of the cover;
 - d. Accommodate settling and subsidence so that the cover's integrity is maintained; and
 - e. Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.
2. After final closure, the owner or operator shall comply with all postclosure requirements contained in sections 33-24-05-65 through 33-24-05-68, including maintenance and monitoring throughout the postclosure care period (specified in the permit under section 33-24-05-65). The owner or operator shall:
 - a. Maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events;
 - b. Continue to operate the leachate collection and removal system until leachate is no longer detected;
 - c. Maintain and monitor the leak detection system in accordance with paragraph 4 of subdivision c of subsection 3 of section 33-24-05-177, subdivision d of subsection 3 of section 33-24-05-177, and subsection 3 of section 33-24-05-178, and comply with all other applicable leak detection system requirements of sections 33-24-05-176 through 33-24-05-190;

- d. Maintain and monitor the ground water monitoring system and comply with all other applicable requirements of sections 33-24-05-47 through 33-24-05-58;
- e. Prevent run-on and runoff from eroding or otherwise damaging the final cover; and
- f. Protect and maintain surveyed bench marks used in complying with section 33-24-05-179.

History: Effective January 1, 1984; amended effective October 1, 1986; December 1, 1988; January 1, 1994; December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-181. Special requirements for ignitable or reactive waste.

- 1. Except as provided in subsection 2 and in section 33-24-05-185, ignitable or reactive waste may not be placed in a landfill, unless the waste and landfill meet all applicable requirements of sections 33-24-05-250 through 33-24-05-299, and:
 - a. The resulting waste mixture or dissolution of material no longer meets the definition of ignitable or reactive waste under section 33-24-02-11 or 33-24-02-13; and
 - b. Subsection 2 of section 33-24-05-08 is complied with.
- 2. Except for prohibited wastes which remain subject to treatment standards in sections 33-24-05-280 through 33-24-05-289, ignitable wastes in containers may be landfilled without meeting the requirements of subsection 1, provided that the wastes are disposed of in such a way that they are protected from any material or conditions which may cause them to ignite. At a minimum, ignitable wastes must be disposed of in nonleaking containers which are carefully handled and placed so as to avoid heat, sparks, rupture, or any other condition that might cause ignition of the wastes; must be covered daily with soil or other noncombustible material to minimize the potential for ignition of the wastes; and may not be disposed of in cells that contain or will contain other wastes which may generate heat sufficient to cause ignition of the waste.

History: Effective January 1, 1984; amended effective December 1, 1991.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-182. Special requirements for incompatible wastes.

Incompatible wastes, or incompatible wastes and materials (see appendix III for

examples of incompatible wastes and materials), may not be placed in the same landfill cell, unless subsection 2 of section 33-24-05-08 is complied with.

History: Effective January 1, 1984; amended effective December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-183. Special requirements for bulk and containerized waste.

1. Bulk or noncontainerized liquid waste or waste containing free liquids may be placed in a landfill prior to May 8, 1985, only if:
 - a. The landfill has a liner and leachate collection and removal system that meets the requirements of subsection 1 of section 33-24-05-177; or
 - b. Before disposal, the liquid waste or waste containing free liquids is treated or stabilized, chemically or physically (for example, by mixing with a sorbent solid), so that free liquids are no longer present.
2. Effective May 8, 1985, the placement of bulk or noncontainerized liquid hazardous waste or hazardous waste containing free liquids (whether or not sorbents have been added) in any landfill is prohibited.
3. To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: method 9095 (paint filter liquids test) as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" environmental protection agency publication SW-846, as incorporated by reference in section 33-24-01-05.
4. Containers holding free liquids must not be placed in a landfill unless:
 - a. All freestanding liquid:
 - (1) Has been removed by decanting, or other methods;
 - (2) Has been mixed with sorbent or solidified so that freestanding liquid is no longer observed; or
 - (3) Has been otherwise eliminated;
 - b. The container is very small, such as an ampule;
 - c. The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or

- d. The container is a lab pack as defined in section 33-24-05-185 and is disposed of in accordance with section 33-24-05-185.
- 5. Sorbents used to treat free liquids to be disposed of in landfills must be nonbiodegradable. Nonbiodegradable sorbents are materials listed or described in subdivision a; materials that pass one of the tests in subdivision b; or materials that are determined by the department to be nonbiodegradable through the chapter 33-24-01 petition process.
 - a. Nonbiodegradable sorbents.
 - (1) Inorganic minerals, other inorganic materials, and elemental carbon (for example, aluminosilicates, clays, smectites, Fuller's earth, bentonite, calcium bentonite, montmorillonite, calcined montmorillonite, kaolinite, micas (illite), vermiculites, zeolites; calcium carbonate (organic free limestone); oxides/hydroxides, alumina, lime, silica (sand), diatomaceous earth; perlite (volcanic glass); expanded volcanic rock; volcanic ash; cement kiln dust; fly ash; rice hull ash; activated charcoal/activated carbon);
 - (2) High molecular weight synthetic polymers (for example, polyethylene, high density polyethylene (HDPE), polypropylene, polystyrene, polyurethane, polyacrylate, polynorborene, polyisobutylene, ground synthetic rubber, cross-linked allylstyrene and tertiary butyl copolymers). This does not include polymers derived from biological material or polymers specifically designed to be degradable; or
 - (3) Mixtures of these nonbiodegradable materials.
 - b. Test for nonbiodegradable sorbents.
 - (1) The sorbent material is determined to be nonbiodegradable under ASTM method G21-70 (1984a)-Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi;
 - (2) The sorbent material is determined to be nonbiodegradable under ASTM method G22-76 (1984b)-Standard Practice for Determining Resistance of Plastics to Bacteria; or
 - (3) The sorbent material is determined to be nonbiodegradable under Organization for Economic Cooperation and Development test 301B: [CO₂ Evolution (Modified Sturm Test)].
- 6. Effective November 8, 1985, the placement of any liquid which is not a hazardous waste in a landfill is prohibited unless the owner or operator

of such landfill demonstrates to the department, or the department determines, that:

- a. The only reasonably available alternative to the placement in such landfill is placement in a landfill or unlined surface impoundment, whether or not permitted or operating under interim status, which contains, or may reasonably be anticipated to contain, hazardous waste; and
- b. Placement in such owner or operator's landfill will not present a risk of contamination of any underground source of drinking water (as that term is defined in 40 CFR part 144.3).

History: Effective January 1, 1984; amended effective October 1, 1986; December 1, 1988; January 1, 1994; July 1, 1997; December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-184. Special requirements for containers. Unless they are very small, such as an ampule, containers must be either:

1. At least ninety percent full when placed in the landfill; or
2. Crushed, shredded, or similarly reduced in volume to the maximum practical extent before burial in the landfill.

History: Effective January 1, 1984.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-185. Disposal of small containers of hazardous waste in overpacked drums (lab packs). Small containers of hazardous waste in overpacked drums (lab packs) may be placed in a landfill if the following requirements are met:

1. Hazardous waste must be packaged in nonleaking inside containers. The inside containers must be of a design and constructed of a material that will not react dangerously with, be decomposed by, or be ignited by the contained waste. Inside containers must be tightly and securely sealed. The inside containers must be of the size and type specified in the department of transportation hazardous materials regulations [49 CFR, parts 173, 178, and 179], if those regulations specify particular inside container for the waste.
2. The inside containers must be overpacked in an open head department of transportation specification metal shipping container [49 CFR, parts 178 and 179] of no more than four hundred sixteen-liter [110-gallon] capacity and surrounded by, at a minimum, a sufficient quantity of sorbent material, determined to be nonbiodegradable in

accordance with subsection 5 of section 33-24-05-183, to completely sorb all of the liquid contents of the inside containers. The metal outer container must be full after it has been packed with inside containers and sorbent material.

3. The sorbent material used must not be capable of reacting dangerously with, being decomposed by, or being ignited by the contents of the inside containers, in accordance with subsection 2 of section 33-24-05-08.
4. Incompatible wastes, as defined in section 33-24-01-04, may not be placed in this same outside container.
5. Reactive wastes, other than cyanide-bearing or sulfide-bearing waste, as defined in subdivision e of subsection 1 of section 33-24-02-13, must be treated or rendered nonreactive prior to packaging in accordance with subsections 1 through 4. Cyanide-bearing and sulfide-bearing reactive waste may be packed in accordance with subsections 1 through 4 without first being treated or rendered nonreactive.
6. Such disposal is in compliance with the requirements of sections 33-24-05-250 through 33-24-05-299. Persons who incinerate lab packs according to the requirements in subdivision a of subsection 3 of section 33-24-05-282 may use fiber drums in place of metal outer containers. Such fiber drums must meet the department of transportation specifications in 49 CFR 173.12 and be overpacked according to the requirements in subsection 2.

History: Effective January 1, 1984; amended effective December 1, 1988; December 1, 1991; January 1, 1994; December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-186. Special requirements for hazardous wastes F020, F021, F022, F023, F026, and F027.

1. Hazardous wastes F020, F021, F022, F023, F026, and F027 may not be placed in a landfill unless the owner or operator operates the landfill in accordance with a management plan for these wastes that is approved by the department pursuant to the standards set out in this section and in accord with all other applicable requirements of this chapter. The factors to be considered are:
 - a. The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through the soil or to volatilize or escape into the atmosphere;
 - b. The attenuative properties of underlying and surrounding soils or other materials;

- c. The mobilizing properties of other materials codisposed with these wastes; and
 - d. The effectiveness of additional treatment, design, or monitoring requirements.
2. The department may determine that additional design, operating, and monitoring requirements are necessary for landfills managing hazardous wastes F020, F021, F022, F023, F026, and F027 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

History: Effective October 1, 1986; amended effective December 1, 1988.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-187. Action leakage rate.

1. The department shall approve an action leakage rate for surface impoundment units subject to subsection 3 or 4 of section 33-24-05-177. The action leakage rate is the maximum design flow rate that the leak detection system (LDS) can remove without the fluid head on the bottom liner exceeding one foot [.3048 meters]. The action leakage rate must include an adequate safety margin to allow for uncertainties in the design (for example, slope, hydraulic conductivity, thickness of drainage material), construction, operation, and location of the leak detection system, waste and leachate characteristics, likelihood and amounts of other sources of liquids in the leak detection system, and proposed response actions (for example, the action leakage rate must consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressures, etc.).
2. To determine if the action leakage rate has been exceeded, the owner or operator must convert the weekly or monthly flow rate from the monitoring data obtained under subsection 3 of section 33-24-05-178, to an average daily flow rate (gallons per acre per day) for each sump. Unless the department approves a different calculation, the average daily flow rate for each sump must be calculated weekly during the active life and closure period, and monthly during the postclosure care period when monthly monitoring is required under subsection 3 of section 33-24-05-178.

History: Effective January 1, 1994.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-188. Response actions.

1. The owner or operator of landfill units subject to subsection 3 or 4 of section 33-24-05-177 must have an approved response action plan before receipt of waste. The response action plan must set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan must describe the actions specified in subsection 2.
2. If the flow rate into the leak detection system exceeds the action leakage rate for any sump, the owner or operator must:
 - a. Notify the department in writing of the exceedance within seven days of the determination;
 - b. Submit a preliminary written assessment to the department within fourteen days of the determination, as to the amount of liquids, likely sources of liquids, possible location, size, and cause of any leaks, and short-term actions taken and planned;
 - c. Determine to the extent practicable the location, size, and cause of any leak;
 - d. Determine whether waste receipt should cease or be curtailed, whether any waste should be removed from the unit for inspection, repairs, or controls, and whether or not the unit should be closed;
 - e. Determine any other short-term and long-term actions to be taken to mitigate or stop any leaks; and
 - f. Within thirty days after the notification that the action leakage rate has been exceeded, submit to the department the results of the analyses specified in subdivisions c, d, and e of subsection 2, the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the owner or operator must submit to the department a report summarizing the results of any remedial actions taken and actions planned.
3. To make the leak or remediation determinations, or both, in subdivisions c, d, and e of subsection 2, the owner or operator must:
 - a. Assess and conduct the following:
 - (1) Assess the source of liquids and amounts of liquids by source;

- (2) Conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquids; and
- (3) Assess the seriousness of any leaks in terms of potential for escaping into the environment; or

b. Document why such assessments are not needed.

History: Effective January 1, 1994.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

~~33-24-05-189. [Reserved]~~

~~33-24-05-190. [Reserved]~~

~~33-24-05-191. [Reserved]~~

~~33-24-05-192. [Reserved]~~

~~33-24-05-193. [Reserved]~~

~~33-24-05-194. [Reserved]~~

~~33-24-05-195. [Reserved]~~

~~33-24-05-196. [Reserved]~~

~~33-24-05-197. [Reserved]~~

~~33-24-05-198. [Reserved]~~

~~33-24-05-199. [Reserved]~~

~~33-24-05-200. [Reserved]~~

33-24-05-201. Applicability to recyclable materials used in a manner constituting disposal.

1. Sections 33-24-05-201 through 33-24-05-204 apply to recyclable materials that are applied to or placed on the land:
 - a. Without mixing with any other substances; or
 - b. After mixing or combination with any other substances, these materials will be referred to throughout sections 33-24-05-201

through 33-24-05-204 as "materials used in a manner that constitutes disposal".

2. Products produced for the general public's use that are used in a manner that constitutes disposal and that contain recyclable materials are not presently subject to regulation if the recyclable materials have undergone a chemical reaction in the course of producing the products so as to become inseparable by physical means and if such products meet the applicable treatment standards in sections 33-24-05-280 through 33-24-05-289 (or applicable prohibition levels in section 33-24-05-272 or Resource Conservation and Recovery Act section 3004(d), where no treatment standards have been established) for each recyclable material (for example, hazardous waste) that they contain.
3. Antiskid or deicing uses of slags, which are generated from high temperature metals recovery (HTMR) processing of hazardous waste K061, K062, and F006, in a manner constituting disposal are not covered by the exemption in subsection 2 and remain subject to regulation.
4. Fertilizers that contain recyclable materials are not subject to regulation provided that:
 - a. They are zinc fertilizers excluded from the definition of solid waste according to subdivision u of subsection 1 of section 33-24-02-04; or
 - b. They meet the applicable treatment standards in sections 33-24-05-280 through 33-24-05-289 for each hazardous waste that they contain.

History: Effective October 1, 1986; amended effective December 1, 1988; December 1, 1991; July 1, 1997; December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-202. Standards applicable to generators and transporters of materials used in a manner that constitutes disposal. Generators and transporters of materials that are used in a manner that constitutes disposal are subject to the applicable requirements of chapters 33-24-03 through 33-24-04 and the notification requirements.

History: Effective October 1, 1986.

General Authority: NDCC 23-20.2-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-203. Standards applicable to storers of materials that are to be used in a manner that constitutes disposal who are not the ultimate users.

Owners or operators of facilities that store recyclable materials that are to be used in a manner that constitutes disposal, but who are not the ultimate users of the material, are regulated under all applicable provisions of chapters 33-24-05 through 33-24-07 and the notification requirements.

History: Effective October 1, 1986.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-204. Standards applicable to users of materials that are used in a manner that constitutes disposal.

1. Owners or operators of facilities that use recyclable materials in a manner that constitutes disposal are regulated under all applicable provisions of chapters 33-24-05 through 33-24-07 and the notification requirements. (These requirements do not apply to products which contain these recyclable materials under the provisions of subsection 2 of section 33-24-05-201.)
2. The use of waste oil or used oil or other material, which is contaminated with dioxin or any other hazardous waste (other than a waste identified solely on the basis of ignitability), for dust suppression or road treatment is prohibited.

History: Effective October 1, 1986.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

~~33-24-05-205. [Reserved]~~

~~33-24-05-206. [Reserved]~~

~~33-24-05-207. [Reserved]~~

~~33-24-05-208. [Reserved]~~

~~33-24-05-209. [Reserved]~~

~~33-24-05-210. Applicability to hazardous waste burned for energy recovery. Repealed effective January 1, 1994.~~

~~33-24-05-211. Prohibitions. Repealed effective January 1, 1994.~~

~~33-24-05-212. Standards applicable to generators of hazardous waste fuel. Repealed effective January 1, 1994.~~

~~33-24-05-213. Standards applicable to transporters of hazardous waste fuel. Repealed effective January 1, 1994.~~

~~33-24-05-214. Standards applicable to marketers of hazardous waste fuel. Repealed effective January 1, 1994.~~

~~33-24-05-215. Standards applicable to burners of hazardous waste fuel. Repealed effective January 1, 1994.~~

~~33-24-05-216. [Reserved]~~

~~33-24-05-217. [Reserved]~~

~~33-24-05-218. [Reserved]~~

~~33-24-05-219. [Reserved]~~

~~33-24-05-220. Applicability to used oil burned for energy recovery. Repealed effective January 1, 1994.~~

~~33-24-05-221. Prohibitions. Repealed effective January 1, 1994.~~

~~33-24-05-222. Standards applicable to generators of used oil burned for energy recovery. Repealed effective January 1, 1994.~~

~~33-24-05-223. Standards applicable to marketers of used oil burned for energy recovery. Repealed effective January 1, 1994.~~

~~33-24-05-224. Standards applicable to burners of used oil burned for energy recovery. Repealed effective January 1, 1994.~~

~~33-24-05-225. [Reserved]~~

~~33-24-05-226. [Reserved]~~

~~33-24-05-227. [Reserved]~~

~~33-24-05-228. [Reserved]~~

~~33-24-05-229. [Reserved]~~

33-24-05-230. Applicability and requirements for recyclable materials utilized for precious metal recovery.

1. Sections 33-24-05-230 through 33-24-05-234 apply to recyclable materials that are reclaimed to recover economically significant amounts of gold, silver, platinum, palladium, iridium, osmium, rhodium, ruthenium, or any combination of these.
2. Persons who generate, transport, or store recyclable materials that are regulated under sections 33-24-05-230 through 33-24-05-234 are subject to the following requirements:

- a. Notification requirements; and
 - b. Chapter 33-24-03 (for generators), sections 33-24-04-04 and 33-24-04-05 (for transporters), and sections 33-24-05-38 and 33-24-05-39 (for persons who store).
3. Persons who store recycled materials that are regulated under this chapter must keep the following records to document that they are not accumulating these materials speculatively (as defined in subsection 3 of section 33-24-02-01):
 - a. Records showing the volume of these materials stored at the beginning of the calendar year;
 - b. The amount of these materials generated or received during the calendar year; and
 - c. The amount of materials remaining at the end of the calendar year.
4. Recyclable materials that are regulated under this chapter that are accumulated speculatively (as defined in subsection 3 of section 33-24-02-01) are subject to all applicable provisions of chapters 33-24-03 through 33-24-07.

History: Effective October 1, 1986; amended effective December 1, 1988.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

~~33-24-05-231. [Reserved]~~

~~33-24-05-232. [Reserved]~~

~~33-24-05-233. [Reserved]~~

~~33-24-05-234. [Reserved]~~

33-24-05-235. Applicability and requirements of spent lead acid batteries being reclaimed.

1. For a facility that generates, collects, transports, stores, or regenerates lead-acid batteries for reclamation purposes, the facility may be exempt from certain hazardous waste management requirements. Use the following table to determine which requirements apply. Alternatively, a generator may choose to manage spent lead-acid batteries under the universal waste rules in sections 33-24-05-700 through 33-24-05-799.

<p>If the batteries:</p> <p>(1) Will be reclaimed through regeneration (such as by electrolyte replacement).</p>	<p>And if you:</p>	<p>Then you:</p> <p>Are exempt from chapters 33-24-03 (except for section 33-24-03-02), 33-24-04, 33-24-06, and 33-24-07 and sections 33-24-05-01 through 33-24-05-599 and 33-24-05-800 through 33-24-05-826 and the notification requirements of section 3010 of the Resource Conservation and Recovery Act.</p>	<p>And you:</p> <p>Are subject to chapter 33-24-02 and section 33-24-03-02.</p>
<p>(2) Will be reclaimed other than through regeneration.</p>	<p>Generate, collect, or transport, or any combination of the above, these batteries.</p>	<p>Are exempt from chapters 33-24-03 (except for section 33-24-03-02), 33-24-04, 33-24-06, and 33-24-07 and sections 33-24-05-01 through 33-24-05-249, 33-24-05-300 through 33-24-05-599, and 33-24-05-800 through 33-24-05-826 and the notification requirements of section 3010 of the Resource Conservation and Recovery Act.</p>	<p>Are subject to chapter 33-24-02 and section 33-24-03-02, and the applicable provisions of sections 33-24-05-250 through 33-24-05-299.</p>

(3) Will be reclaimed other than through regeneration.	Store these batteries but are not the reclaimer.	Are exempt from chapters 33-24-03 (except for section 33-24-03-02), 33-24-04, 33-24-06, and 33-24-07 and sections 33-24-05-01 through 33-24-05-249, 33-24-05-300 through 33-24-05-599, and 33-24-05-800 through 33-24-05-826 and the notification requirements of section 3010 of the Resource Conservation and Recovery Act.	Are subject to chapter 33-24-02 and section 33-24-03-02, and the applicable provisions of sections 33-24-05-250 through 33-24-05-299.
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(4) Will be reclaimed other than through regeneration.	Store these batteries before you reclaim them.	Must comply with subsection 2 of section 33-24-05-235.	Are subject to chapter 33-24-02 and section 33-24-03-02, and the applicable provisions of sections 33-24-05-250 through 33-24-05-299.
(5) Will be reclaimed other than through regeneration.	Do not store these batteries before you reclaim them.	Are exempt from chapters 33-24-03 (except for section 33-24-03-02), 33-24-04, 33-24-06, and 33-24-07 and sections 33-24-05-01 through 33-24-05-249, 33-24-05-300 through 33-24-05-599, and 33-24-05-800 through 33-24-05-826 and the notification requirements of section 3010 of the Resource Conservation and Recovery Act.	Are subject to chapter 33-24-02 and section 33-24-03-02, and the applicable provisions of sections 33-24-05-250 through 33-24-05-299.

2. For a facility that stores spent lead-acid batteries before reclamation but not through regeneration, the facility is subject to the following requirements:
 - a. Notification under section 3010 of the Resource Conservation and Recovery Act.
 - b. Sections 33-24-05-01 through 33-24-05-143, except sections 33-24-05-04, 33-24-05-38, and 33-24-05-39.

- c. All applicable regulations in chapters 33-24-06 and 33-24-07.

History: Effective October 1, 1986; amended effective December 1, 1988; July 1, 1997; December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

~~33-24-05-236. [Reserved]~~

~~33-24-05-237. [Reserved]~~

~~33-24-05-238. [Reserved]~~

~~33-24-05-239. [Reserved]~~

~~33-24-05-240. [Reserved]~~

~~33-24-05-241. [Reserved]~~

~~33-24-05-242. [Reserved]~~

~~33-24-05-243. [Reserved]~~

~~33-24-05-244. [Reserved]~~

~~33-24-05-245. [Reserved]~~

~~33-24-05-246. [Reserved]~~

~~33-24-05-247. [Reserved]~~

~~33-24-05-248. [Reserved]~~

~~33-24-05-249. [Reserved]~~

33-24-05-250. Purpose, scope, and applicability to land disposal restrictions.

1. Sections 33-24-05-250 through 33-24-05-299 identify hazardous wastes that are restricted from land disposal and defines those limited circumstances under which an otherwise prohibited waste may continue to be land disposed.
2. Except as specifically provided otherwise in sections 33-24-05-250 through 33-24-05-299 or chapter 33-24-02, the requirements of sections 33-24-05-250 through 33-24-05-299 apply to persons who generate or transport hazardous waste and owners and operators of hazardous waste treatment, storage, and disposal facilities.

3. Restricted wastes may continue to be land disposed as follows:
 - a. Where persons have been granted an extension from the effective date of a prohibition under sections 33-24-05-270 through 33-24-05-279 or pursuant to section 33-24-05-254, with respect to those wastes covered by the extension;
 - b. Where persons have been granted an exemption from a prohibition pursuant to a petition under section 33-24-05-255, with respect to those wastes and units covered by the petition;
 - c. Wastes that are hazardous only because they exhibit a hazardous characteristic, and which are otherwise prohibited under sections 33-24-05-250 through 33-24-05-299, or 40 CFR part 148, are not prohibited if the wastes:
 - (1) Are disposed into a nonhazardous or hazardous injection well as defined in 40 CFR 144.6(a); and
 - (2) Do not exhibit any prohibited characteristic of hazardous waste identified in sections 33-24-02-10 through 33-24-02-14 at the point of injection; or
 - d. Wastes that are hazardous only because they exhibit a hazardous characteristic, and which are otherwise prohibited under sections 33-24-05-250 through 33-24-05-299, are not prohibited if the wastes meet any of the following criteria, unless the wastes are subject to a specified method of treatment other than DEACT in section 33-24-05-280, or are D003 reactive cyanide:
 - (1) The wastes are managed in a treatment system which subsequently discharges to waters of the United States pursuant to a permit issued under section 402 of the Clean Water Act;
 - (2) The wastes are treated for purposes of the pretreatment requirements of section 307 of the Clean Water Act; or
 - (3) The wastes are managed in a zero discharge system engaged in Clean Water Act-equivalent treatment as defined in subsection 1 of section 33-24-05-277; and
 - (4) The wastes no longer exhibit a prohibited characteristic at the point of land disposal (for example, placement in a surface impoundment).
4. The requirements of this section do not affect the availability of a waiver under section 121(d)(4) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

5. The following hazardous wastes are not subject to any provision of sections 33-24-05-250 through 33-24-05-299:
 - a. Waste generated by small quantity generators of less than one hundred kilograms of nonacute hazardous waste or less than one kilogram of acute hazardous waste per month, as defined in section 33-24-02-05.
 - b. Waste pesticides that a farmer disposes of pursuant to section 33-24-03-40.
 - c. Wastes identified or listed as hazardous after November 8, 1984, for which the department has not promulgated land disposal prohibitions or treatment standards.
 - d. De minimis losses of characteristic wastes to wastewaters are not considered to be prohibited wastes and are defined as losses from normal material handling operations (for example, spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves or other devices used to transfer materials); minor leaks of process equipment, storage tanks, or containers; leaks from well-maintained pump packings and seals; sample purgings; and relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; rinsate from empty containers or from containers that are rendered empty by that rinsing; and laboratory wastes not exceeding one percent of the total flow of wastewater into the facility's headworks on an annual basis, or with a combined annualized average concentration not exceeding one part per million in the headworks of the facility's wastewater treatment or pretreatment facility.
6. Universal waste handlers and universal waste transporters, as defined in section 33-24-01-04, are exempt from sections 33-24-05-256 and 33-24-05-290 for the wastes listed below. These handlers are subject to regulation under sections 33-24-05-701 through 33-24-05-799.
 - a. Batteries as described in section 33-24-05-702;
 - b. Pesticides as described in section 33-24-05-703;
 - c. Mercury containing devices as described in section 33-24-05-704; and

- d. Lamps as described in section 33-24-05-705.

History: Effective December 1, 1988; amended effective December 1, 1991; January 1, 1994; July 1, 1997; December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-251. Definitions applicable to sections 33-24-05-250 through 33-24-05-299. When used in sections 33-24-05-250 through 33-24-05-299, the following terms have the meanings given below:

1. "Debris" means solid material exceeding a sixty millimeter 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 sections 33-24-05-280 through 33-24-05-289, namely lead-acid batteries, cadmium batteries, and radioactive lead solids; process residuals such as smelter slag and residues from the treatment of waste, wastewater, sludges, or air emission residues; and intact containers of hazardous waste that are not ruptured and that retain at least seventy-five percent of their original volume. A mixture of debris that has not been treated to the standards provided by section 33-24-05-285 and other material is subject to regulation as debris if the mixture is comprised primarily of debris, by volume, based on visual inspection.
2. "Halogenated organic compounds or HOCs" mean those compounds having a carbon-halogen bond.
3. "Hazardous constituent or constituents" means those constituents listed in appendix V to chapter 33-24-02.
4. "Hazardous debris" means debris that contains a hazardous waste listed in sections 33-24-02-15 through 33-24-02-19, or that exhibits a characteristic of hazardous waste identified in sections 33-24-02-10 through 33-24-02-14. Any deliberate mixing of prohibited hazardous waste with debris that changes its treatment classification (for example, from waste to hazardous debris) is not allowed under the dilution prohibition in section 33-24-05-252.
5. "Inorganic metal-bearing waste" is a waste for which the environmental protection agency has established treatment standards for metal hazardous constituents, and which does not otherwise contain significant organic or cyanide content as described in subdivision a of subsection 3 of section 33-24-05-252, and is specifically listed in appendix XXIX of chapter 33-24-05.
6. "Land disposal" means placement in or on the land, except in a corrective action management unit or staging pile, and includes, but

is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, underground mine or cave, or placement in a concrete vault, or bunker intended for disposal purposes.

7. "Nonwastewaters" are wastes that do not meet the criteria for wastewaters in subsection 11.
8. "Polychlorinated biphenyls or PCBs" are halogenated organic compounds defined in accordance with 40 CFR 761.3.
9. "Soil" means unconsolidated earth material composing the superficial geologic strata (material overlying bedrock), consisting of clay, silt, sand, or gravel size particles as classified by the United States Natural Resources Conservation Service, or a mixture of such materials with liquids, sludges, or solids which is inseparable by simple mechanical removal processes and is made up primarily of soil by volume based on visual inspection. Any deliberate mixing of prohibited hazardous waste with soil that changes its treatment classification (for example, from waste to contaminated soil) is not allowed under the dilution prohibition in section 33-24-05-252.
10. "Underlying hazardous constituent" means any constituent listed in section 33-24-05-288, table universal treatment standards, except fluoride, selenium, sulfides, vanadium, and zinc, which can reasonably be expected to be present at the point of generation of the hazardous waste, at a concentration above the constituent-specific universal treatment standards treatment standard.
11. "Wastewaters" are wastes that contain less than one percent by weight total organic carbon (TOC) and less than one percent by weight total suspended solids.

History: Effective December 1, 1988; amended effective December 1, 1991; January 1, 1994; July 1, 1997; December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-252. Dilution prohibited as a substitute for treatment.

1. Except as provided in subsection 2, no generator, transporter, handler, or owner or operator of a treatment, storage, or disposal facility shall in any way dilute a restricted waste or the residual from treatment of a restricted waste as a substitute for adequate treatment to achieve compliance with sections 33-24-05-280 through 33-24-05-289, to circumvent the effective date of a prohibition in sections 33-24-05-270 through 33-24-05-279, to otherwise avoid a prohibition in sections 33-24-05-270 through 33-24-05-279, or to circumvent a land disposal

prohibition imposed by Resource Conservation and Recovery Act section 3004.

2. Dilution of wastes that are hazardous only because they exhibit a characteristic in treatment systems which include land-based units which treat wastes subsequently discharged to a water of the United States pursuant to a permit issued under section 402 of the Clean Water Act, or which treat wastes in a Clean Water Act-equivalent treatment system, or which treat wastes for the purposes of pretreatment requirements under section 307 of the Clean Water Act is not impermissible dilution for purposes of this section unless a method other than DEACT has been specified in section 33-24-05-280 as the treatment standard, or unless the waste is a D003 reactive cyanide wastewater or nonwastewater.
3. Combustion of the hazardous waste codes listed in appendix XXIX is prohibited, unless the waste, at the point of generation, or after any bona fide treatment such as cyanide destruction prior to combustion, can be demonstrated to comply with one or more of the following criteria, unless otherwise specifically prohibited from combustion:
 - a. The waste contains hazardous organic constituents or cyanide at levels exceeding the constituent-specific treatment standard specified in section 33-24-05-288;
 - b. The waste consists of organic, debris-like materials (for example, wood, paper, plastic, or cloth) contaminated with an inorganic metal-bearing hazardous waste;
 - c. The waste, at point of generation, has reasonable heating value such as greater than or equal to five thousand British thermal units per pound;
 - d. The waste is cogenerated with wastes for which combustion is a required method of treatment;
 - e. The waste is subject to requirements necessitating reduction of organics, including biological agents; or
 - f. The waste contains greater than one percent total organic carbon (TOC).
4. It is a form of impermissible dilution, and therefore prohibited, to add iron filings or other metallic forms of iron to lead-containing hazardous wastes in order to achieve any land disposal restriction treatment standard for lead. Lead-containing wastes include D008 wastes (wastes exhibiting a characteristic due to the presence of lead), all characteristic wastes containing lead as an underlying hazardous constituent, listed wastes containing lead as a regulated

constituent, and hazardous media containing any of the aforementioned lead-containing wastes.

History: Effective December 1, 1988; amended effective December 1, 1991; January 1, 1994; July 1, 1997; December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-253. Treatment surface impoundment exemption.

1. Wastes which are otherwise prohibited from land disposal under this part may be treated in a surface impoundment or series of impoundments provided that:
 - a. Treatment of such wastes occurs in the impoundments.
 - b. The following conditions are met:
 - (1) Sampling and testing. For wastes with treatment standards in sections 33-24-05-280 through 33-24-05-289 and prohibition levels in sections 33-24-05-270 through 33-24-05-279, or both, or Resource Conservation and Recovery Act section 3004(d), the residues from treatment are analyzed, as specified in section 33-24-05-256 or 33-24-05-272, to determine if the wastes meet the applicable treatment standards or where no treatment standards have been established for the waste, the applicable prohibition levels. The sampling method, specified in the waste analysis plan under section 33-24-05-04, must be designed such that representative samples of the sludge and the supernatant are tested separately rather than mixed to form homogeneous samples.
 - (2) Removal. The following treatment residues (including any liquid waste) must be removed at least annually; residues which do not meet the treatment standards promulgated under sections 33-24-05-280 through 33-24-05-289; residues which do not meet the prohibition levels established under sections 33-24-05-270 through 33-24-05-279 or imposed by statute (where no treatment standards have been established); residues which are from the treatment of wastes prohibited from land disposal under sections 33-24-05-270 through 33-24-05-279 (where no treatment standards have been established and no prohibition levels apply); or residues from managing listed wastes which are not delisted under section 33-24-01-08. If the volume of liquid flowing through the impoundment or series of impoundments annually is greater than the volume of the impoundment or

impoundments, this flowthrough constitutes removal of the supernatant for the purpose of this requirement.

- (3) Subsequent management. Treatment residues may not be placed in any other surface impoundment for subsequent management.
 - (4) Recordkeeping. Sampling and testing and recordkeeping provisions of section 33-24-05-04 apply.
- c. The impoundment meets the design requirements of subsection 3 of section 33-24-05-119, regardless that the unit may not be new, expanded, or a replacement, and be in compliance with applicable ground water monitoring requirements of sections 33-24-05-47 through 33-24-05-58 unless:
- (1) Exempted pursuant to subsection 4 or 5 of section 33-24-05-119;
 - (2) Upon application by the owner or operator, the department, after notice and an opportunity to comment, has granted a waiver of the requirements on the basis that the surface impoundment:
 - (a) Has at least one liner, for which there is no evidence that such liner is leaking;
 - (b) Is located more than one-quarter mile [402.3 meters] from an underground source of drinking water; and
 - (c) Is in compliance with generally applicable ground water monitoring requirements for facilities with permits; or
 - (3) Upon application by the owner or operator, the department, after notice and an opportunity to comment, has granted a modification to the requirements on the basis of a demonstration that the surface impoundment is located, designed, and operated so as to assure that there will be no migration of any hazardous constituent into ground water or surface water at any future time.
- d. The owner or operator submits to the department a written certification that the requirements of subdivision c of subsection 1 have been met. The following certification is required:

I certify under penalty of law that the requirements of subdivision c of subsection 1 of section 33-24-05-253 have been met for all surface impoundments being used to treat restricted wastes. I believe that the submitted information is true, accurate, and

complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

2. Evaporation of hazardous constituents as the principal means of treatment is not considered to be treatment for purposes of an exemption under this section.
- ~~3. Combustion of the hazardous waste codes listed in appendix XXIX is prohibited, unless the waste, at the point of generation, or after any bona fide treatment such as cyanide destruction prior to combustion, can be demonstrated to comply with one or more of the following criteria, unless otherwise specifically prohibited from combustion:~~
 - a. The waste contains hazardous organic constituents or cyanide at levels exceeding the constituent-specific treatment standard specified in section 33-24-05-288;
 - b. The waste consists of organic, debris-like materials (for example, wood, paper, plastic, or cloth) contaminated with an inorganic metal-bearing hazardous waste;
 - c. The waste, at point of generation, has reasonable heating value such as greater than or equal to five thousand British thermal units per pound;
 - d. The waste is cogenerated with wastes for which combustion is a required method of treatment;
 - e. The waste is subject to requirements necessitating reduction of organics, including biological agents; or
 - ~~f. The waste contains greater than one percent total organic carbon (TOC).~~

History: Effective December 1, 1988; amended effective December 1, 1991; January 1, 1994; July 1, 1997; December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

~~**33-24-05-254. Procedures for case-by-case extensions to an effective date.**~~

- ~~1. Any person who generates, treats, stores, or disposes of a hazardous waste may submit an application to the administrator for an extension to the effective date of any applicable restriction established under sections 33-24-05-270 through 33-24-05-279. The applicant shall demonstrate the following:~~

- a. ~~The applicant has made a good-faith effort to locate and contract with treatment, recovery, or disposal facilities nationwide to manage the applicant's waste in accordance with the effective date of the applicable restrictions established under sections 33-24-05-270 through 33-24-05-279;~~
 - b. The applicant has entered into a binding contractual commitment to construct or otherwise provide alternative treatment, recovery, (for example, recycling), or disposal capacity that meets the treatment standards specified in sections 33-24-05-280 through 33-24-05-289 or, where treatment standards have not been specified, such treatment, recovery, or disposal capacity is protective of human health and the environment;
 - c. Due to circumstances beyond the applicant's control, such alternative capacity cannot reasonably be made available by the applicable effective date. This demonstration may include a showing that the technical and practical difficulties associated with providing the alternative capacity will result in the capacity not being available by the applicable effective date;
 - d. The capacity being constructed or otherwise provided by the applicant will be sufficient to manage the entire quantity of waste that is the subject of the application;
 - e. The applicant provides a detailed schedule for obtaining required operating and construction permits or an outline of how and when alternative capacity will be available;
 - f. The applicant has arranged for adequate capacity to manage the applicant's waste during an extension and has documented in the application the location of all sites at which the waste will be managed; and
 - g. Any waste managed in a surface impoundment or landfill during the extension period will meet the requirements of subdivision b of subsection 8.
2. An authorized representative signing an application described under subsection 1 shall make the following certification: I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

- ~~3. After receiving an application for an extension, the administrator may request any additional information which the administrator deems as necessary to evaluate the application.~~
4. An extension will apply only to the waste generated at the individual facility covered by the application and will not apply to restricted waste from any other facility.
5. On the basis of the information referred to in subsection 1, after notice and opportunity for comment, and after consultation with appropriate state agencies in all affected states, the administrator may grant an extension of up to one year from the effective date. The administrator may renew this extension for up to one additional year upon the request of the applicant if the demonstration required in subsection 1 can still be made. In no event will an extension extend beyond twenty-four months from the applicable effective date specified in sections 33-24-05-270 through 33-24-05-279. The length of any extension authorized will be determined by the administrator based on the time required to construct or obtain the type of capacity needed by the applicant as described in the completion schedule discussed in subdivision e of subsection 1. The administrator will give public notice of the intent to approve or deny a petition and provide an opportunity for public comment. The final decision on a petition will be published in the federal register.
6. Any person granted an extension under this section shall immediately notify the administrator as soon as that person has knowledge of any change in the conditions certified to in the application.
7. Any person granted an extension under this section shall submit written progress reports at intervals designated by the administrator. Such reports must describe the overall progress made toward constructing or otherwise providing alternative treatment, recovery, or disposal capacity; must identify any event which may cause or has caused a delay in the development of the capacity; and must summarize the steps taken to mitigate the delay. The administrator can revoke an extension at any time if the applicant does not demonstrate a good-faith effort to meet the schedule for completion, if the environmental protection agency denies or revokes any required permit, if conditions certified in the application change, or for any violation of this chapter.
8. When the administrator establishes an extension to an effective date under this section, during the period for which such extension is in effect:
 - a. The storage restrictions under subsection 1 of section 33-24-05-290 do not apply; and
 - b. Such hazardous waste may be disposed in a landfill or surface impoundment only if such unit is in compliance with the technical

~~requirements of the following provisions regardless of whether such unit is existing, new, or a replacement or lateral expansion.~~

- ~~(1) The landfill, if in interim status, is in compliance with the applicable requirements of subsection 5 of section 33-24-06-16;~~
- ~~(2) The landfill, if permitted, is in compliance with the requirements of sections 33-24-05-47 through 33-24-05-58 and subsections 3, 4, and 5 of section 33-24-05-177;~~
- ~~(3) The surface impoundment, if in interim status, is in compliance with the requirements of sections 33-24-05-47 through 33-24-05-58, subsections 1, 3, and 4 of section 33-24-05-119, and Resource Conservation and Recovery Act section 3005(j)(1);~~
- ~~(4) The surface impoundment, if permitted, is in compliance with the requirements of sections 33-24-05-47 through 33-24-05-58 and subsections 3, 4, and 5 of section 33-24-05-119;~~
- ~~(5) The surface impoundment, if newly subject to Resource Conservation and Recovery Act 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 subsection 5 of section 33-24-06-16 (subpart F of 40 CFR part 265) within twelve months after the promulgation of additional listings or characteristics of hazardous waste, and with the requirements of subsection 5 of section 33-24-06-16 (40 CFR section 265.221 (a), (c), and (d)) within forty-eight 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 Resource Conservation and Recovery Act section 3005(j)(1) due to the promulgation of additional listings or characteristics of hazardous waste, is in compliance with the requirements of subsection 5 of section 33-24-06-16 (subpart F of 40 CFR part 265) within twelve months after the promulgation of additional listings or characteristics of hazardous waste, and with the requirements of subsection 5 of section 33-24-06-16 (40 CFR section 265.221 (a), (c), and (d)) within forty-eight months after the promulgation of additional listings or characteristics of hazardous waste; or~~
- ~~(6) The landfill, if disposing of containerized liquid hazardous wastes containing polychlorinated biphenyls of concentrations greater than or equal to fifty parts per~~

~~million but less than five hundred parts per million, is also in compliance with the requirements of 40 CFR 761.75 and this article.~~

9. Pending a decision on an application, the applicant is required to comply with all restrictions on land disposal under sections 33-24-05-250 through 33-24-05-290 once the effective date for the waste has been reached.

History: Effective December 1, 1988; amended effective December 1, 1991; January 1, 1994; July 1, 1997; December 1, 2003.

General Authority: NDCC 23-20.3-03

~~**Law Implemented:** NDCC 23-20.3-03, 23-20.3-04~~

~~**33-24-05-255. Petitions to allow land disposal of a waste prohibited under sections 33-24-05-270 through 33-24-05-279.**~~

1. Any person seeking an exemption from a prohibition under sections 33-24-05-270 through 33-24-05-279 for the disposal of a restricted hazardous waste in a particular unit or units shall submit a petition to the administrator demonstrating, to a reasonable degree of certainty, that there will be no migration of hazardous constituents from the disposal unit or injection zone for as long as the wastes remain hazardous. The demonstration must include the following components:
 - a. An identification of the specific waste and the specific unit for which the demonstration will be made;
 - b. A waste analysis to describe fully the chemical and physical characteristics of the subject waste;
 - c. A comprehensive characterization of the disposal unit site including an analysis of background air, soil, and water quality;
 - d. A monitoring plan that detects migration at the earliest practicable time; and
 - e. Sufficient information to assure the administrator that the owner or operator of a land disposal unit receiving restricted wastes will comply with other applicable federal, state, and local laws.
2. The demonstration referred to in subsection 1 must meet the following criteria:
 - a. All waste and environmental sampling, test, and analysis data must be accurate and reproducible to the extent that state of the art techniques allow;

- ~~b. All sampling, testing, and estimation techniques for chemical and physical properties of the waste and all environmental parameters must have been approved by the administrator;~~
 - c. Simulation models must be calibrated for the specific waste and site conditions, and verified for accuracy by comparison with actual measurements;
 - d. A quality assurance and quality control plan that addresses all aspects of the demonstration must be approved by the administrator; and
 - e. An analysis must be performed to identify and quantify any aspects of the demonstration that contribute significantly to uncertainty. This analysis must include an evaluation of the consequences of predictable future events, including, but not limited to, earthquakes, floods, severe storm events, droughts, or other natural phenomena.
3. Each petition referred to in subsection 1 must include the following:
- a. A monitoring plan that describes the monitoring program installed at or around the unit to verify continued compliance with the conditions of the variance. This monitoring plan must provide information on the monitoring of the unit or the environment around the unit, or both. The following specific information must be included in the plan:
 - (1) The media monitored in the cases where monitoring of the environment around the unit is required;
 - (2) The type of monitoring conducted at the unit, in the cases where monitoring of the unit is required;
 - (3) The location of the monitoring station;
 - (4) The monitoring interval (frequency of monitoring at each station);
 - (5) The specific hazardous constituents to be monitored;
 - (6) The implementation schedule for the monitoring program;
 - (7) The equipment used at the monitoring station;
 - (8) The sampling and analytical techniques employed; and
 - ~~(9) The data recording and reporting procedures.~~

- ~~b. Where applicable, the monitoring program described in subdivision a must be in place for a period of time specified by the administrator, as part of his approval of the petition, prior to receipt of prohibited waste at the unit.~~
- c. The monitoring data collected according to the monitoring plan specified under subdivision a must be sent to the administrator according to a format and schedule specified and approved in the monitoring plan.
- d. A copy of the monitoring data collected under the monitoring plan specified under subdivision a must be kept onsite at the facility in the operating record.
- e. The monitoring program specified under subdivision a meets the following criteria:
 - (1) All sampling, testing, and analytical data must be approved by the administrator and must provide data that is accurate and reproducible.
 - (2) All estimation and monitoring techniques must be approved by the administrator.
 - (3) A quality assurance and quality control plan addressing all aspects of the monitoring program must be provided to and approved by the administrator.
- 4. Each petition must be submitted to the administrator.
- 5. After a petition has been approved, the owner or operator must report any changes in conditions at the unit or the environment around the unit, or both, that significantly depart from the conditions described in the variance and affect the potential for migration of hazardous constituents from the units as follows:
 - a. If the owner or operator plans to make changes to the unit design, construction, or operation, such a change must be proposed in writing and the owner or operator must submit a demonstration to the administrator at least thirty days prior to making the change. The administrator will determine whether the proposed change invalidates the terms of the petition and will determine the appropriate response. Any change must be approved by the administrator prior to being made.
 - b. If the owner or operator discovers that a condition at the site which was modeled or predicted in the petition does not occur as predicted, this change must be reported, in writing, to the administrator within ten days of discovering the change. The

~~administrator will determine whether the reported change from the terms of the petition requires further action which may include termination of waste acceptance and revocation of the petition, petition modifications, or other responses.~~

6. If the owner or operator determines that there is migration of hazardous constituents from the unit, the owner or operator must:
 - a. Immediately suspend receipt of prohibited waste at the unit; and
 - b. Notify the administrator in writing, within ten days of the determination that a release has occurred.
 - c. Following receipt of the notification the administrator will determine, within sixty days of receiving notification, whether the owner or operator can continue to receive prohibited waste in the unit and whether the variance is to be revoked. The administrator shall also determine whether further examination of any migration is warranted under applicable provisions of chapter 33-24-05.
7. Each petition must include the following statement signed by the petitioner or an authorized representative: (I certify under penalty of law that I have personally examined and am familiar with the information submitted in this petition and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.)
8. After receiving a petition, the administrator may request any additional information that reasonably may be required to evaluate the demonstration.
9. If approved, the petition will apply to land disposal of the specific restricted waste at the individual disposal unit described in the demonstration and will not apply to any other restricted waste at that disposal unit, or to that specific restricted waste at any other disposal unit.
10. The administrator will give public notice in the federal register of the intent to approve or deny a petition and provide an opportunity for public comment. The final decision on a petition will be published in the federal register.
11. The term of a petition granted under this section may be no longer than the term of the hazardous waste permit if the disposal unit is operating under a hazardous waste permit, or up to a maximum of five years from the date of approval provided under subsection 7 if the unit is operating

~~under interim status. In either case, the term of the granted petition expires upon the termination or denial of a hazardous waste permit, or upon the termination of interim status or when the volume limit of waste to be land disposed during the term of petition is reached.~~

12. Prior to the administrator's decision, the applicant is required to comply with all restrictions on land disposal under sections 33-24-05-250 through 33-24-05-299 once the effective date for the waste has been reached.
13. The petition granted by the administrator does not relieve the petitioner of the petitioner's responsibility in the management of hazardous waste under chapters 33-24-01 through 33-24-07.
14. Liquid hazardous wastes containing polychlorinated biphenyls of concentrations greater than or equal to five hundred parts per million are not eligible for an exemption under this section.

History: Effective December 1, 1988; amended effective December 1, 1991; January 1, 1994.

General Authority: NDCC 23-20.3-03

~~**Law Implemented:** NDCC 23-20.3-03, 23-20.3-04~~

33-24-05-256. Testing, tracking, and recordkeeping requirements for generators, treaters, and disposal facilities.

1. Requirements for generators:

- a. A generator of hazardous waste must determine if the waste has to be treated before it can be land disposed. This is done by determining if the hazardous waste meets the treatment standards in section 33-24-05-280, or section 33-24-05-285, or section 33-24-05-289. This determination can be made in either of two ways: testing the waste or using knowledge of the waste. If the generator tests the waste, testing would normally determine the total concentration of hazardous constituents, or the concentration of hazardous constituents in an extract of the waste obtained using test method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", environmental protection agency publication SW-846, as referenced in section 33-24-01-05, depending on whether the treatment standard for the waste is expressed as a total concentration or concentration of hazardous constituent in the waste's extract. In addition, some hazardous wastes must be treated by particular treatment methods before they can be land disposed and some soils are contaminated by such hazardous wastes. These treatment standards are also found in section 33-24-05-280 and are described in detail in section 33-24-05-282, table 1. These wastes, and soils contaminated with such wastes, do not need to be tested, however, if they are in a

waste mixture, other wastes with concentration level treatment standards would have to be tested. If a generator determines it is managing a waste or soil contaminated with a waste that displays a hazardous characteristic of ignitability, corrosivity, reactivity, or toxicity, it must comply with the special requirements of section 33-24-05-258 in addition to any applicable requirements in this section.

- b. If the waste or contaminated soil does not meet the treatment standard: With the initial shipment of waste to each treatment or storage facility, the generator must send a one-time written notice to each treatment or storage facility receiving the waste and place a copy in the file. The notice must include the information in column "subdivision b" of the generator paperwork requirements table in subdivision d. No further notification is necessary until such time that the waste or facility change, in which case a new notification must be sent and a copy placed in the generator's file.

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

I certify under penalty of law that I personally have examined this contaminated soil and it [does/does not] contain listed hazardous waste and [does/does not] exhibit a characteristic of hazardous waste and requires treatment to meet the soil treatment standards as provided by subsection 3 of section 33-24-05-289.

~~(2) [Reserved]~~

- c. If the waste or contaminated soil meets the treatment standard at the original point of generation:

- (1) With the initial shipment of waste to each treatment, storage, or disposal facility, the generator must send a one-time written notice to each treatment, storage, or disposal facility receiving the waste and place a copy in the file. The notice must include the information indicated in column "subdivision c" of the generator paperwork requirements table in subdivision d of subsection 1 and the following certification statement, signed by an authorized representative:

I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in sections 33-24-05-280 through 33-24-05-289. I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for

submitting a false certification, including the possibility of a fine and imprisonment.

- (2) For contaminated soil, with the initial shipment of wastes to each treatment, storage, or disposal facility, the generator must send a one-time written notice to each facility receiving the waste and place a copy in the file. The notice must include the information in column "subdivision c" of the generator paperwork requirements table in subdivision d of subsection 1.
 - (3) If the waste changes, the generator must send a new notice and certification to the receiving facility and place a copy in its files. Generators of hazardous debris excluded from the definition of hazardous waste under subsection 5 of section 33-24-02-03 are not subject to these requirements.
- d. For reporting, tracking, and recordkeeping when exceptions allow certain wastes or contaminated soil that do not meet the treatment standards to be land disposed: There are certain exemptions from the requirement that hazardous wastes or contaminated soil meet treatment standards before they can be land disposed. These include, but are not limited to case-by-case extensions under section 33-24-05-254, disposal in a no-migration unit under section 33-24-05-255, or a national capacity variance or case-by-case capacity variance under sections 33-24-05-270 through 33-24-05-279. If a generator's waste is so exempt, then with the initial shipment of waste, the generator must send a one-time written notice to each land disposal facility receiving the waste. The notice must include the information indicated in column "subdivision d" of the generator paperwork requirements table. If the waste changes, the generator must send a new notice to the receiving facility and place a copy in its files.

Generator Paperwork Requirements Table

Required Information*	Subdivision			
	Subdivision b	c	Subdivision d	Subdivision i
1. Environmental protection agency hazardous waste numbers and manifest number of first shipment.	√	√	√	√
2. Statement: This waste is not prohibited from land disposal.			√	

Generator Paperwork Requirements Table

Required Information*	Subdivision b	Subdivision c	Subdivision d	Subdivision i
3. The waste is subject to the land disposal restrictions. The constituents of concern for F001-F005, and F039, and underlying hazardous constituents in characteristic wastes, unless the waste will be treated and monitored for all constituents. If all constituents will be treated and monitored, there is no need to put them all on the land disposal restriction notice.	√	√		
4. The notice must include the applicable wastewater/nonwastewater category (see subsections 7 and 11 of section 33-24-05-251) and subdivisions made within a waste code based on waste-specific criteria (such as D003 reactive cyanide).	√	√		
5. Waste analysis data (when available).	√	√	√	
6. Date the waste is subject to the prohibition.			√	
7. For hazardous debris, when treating with the alternative treatment technologies provided by section 33-24-05-285, the contaminants subject to treatment, as described in subsection 2 of section 33-24-05-285; and an indication that these contaminants are being treated to comply with section 33-24-05-285.	√		√	
8. For contaminated soil subject to land disposal restrictions as provided in subsection 1 of section 33-24-05-289, the constituents subject to treatment as described in subsection 4 of section 33-24-05-289, and the following statements: This contaminated soil [does/does not] contain listed hazardous waste and [does/does not] exhibit a characteristic of hazardous waste and [is subject to/complies with] the soil treatment standards as provided by subsection 3 of section 33-24-05-289 or the universal treatment standards.	√	√		
9. A certification is needed (see applicable section for exact wording).		√		√

*Note: Information requirements referenced in the above table can be found in the indicated subdivision of subsection 1.

- e. If a generator is managing and treating prohibited waste, or contaminated soil in tanks, containers, or containment buildings regulated under section 33-24-03-12 to meet applicable land

disposal restriction treatment standards found at section 33-24-05-280, the generator must develop and follow a written waste analysis plan which describes the procedures it will carry out to comply with the treatment standards. (Generators treating hazardous debris under the alternative treatment standards of table 1, section 33-24-05-285, however, are not subject to these waste analysis requirements.) The plan must be kept onsite in the generator's records, and the following requirements must be met:

- (1) The waste analysis plan must be based on a detailed chemical and physical analysis of a representative sample of the prohibited waste or wastes being treated and contain all information necessary to treat the waste or wastes in accordance with the requirements of sections 33-24-05-250 through 33-24-05-299, including the selected testing frequency.
 - (2) Such plan must be kept in the facility's onsite files and made available to inspectors.
 - (3) Wastes shipped offsite pursuant to this paragraph must comply with the notification requirements of subdivision c of subsection 1.
- f. If a generator determines that the waste, or contaminated soil, is restricted based solely on the generator's knowledge of the waste, all supporting data used to make this determination must be retained onsite in the generator's files. If a generator determines that the waste or contaminated soil is restricted based on testing this waste or an extract developed using the test method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", environmental protection agency publication SW-846, incorporated by reference in section 33-24-01-05, and all waste analysis data must be retained onsite in the generator's files.
9. If a generator determines that it is managing a prohibited waste that is excluded from the definition of hazardous or solid waste or is exempted from hazardous waste regulation under sections 33-24-02-02 through 33-24-02-06 subsequent to the point of generation (including deactivated characteristic hazardous wastes managed in wastewater treatment systems subject to the Clean Water Act, as specified at subdivision b of subsection 1 of section 33-24-02-04 or that are Clean Water Act-equivalent, or are managed in an underground injection well regulated by the Safe Drinking Water Act), the generator must place a one-time notice describing such generation, subsequent exclusion from the definition of hazardous or solid waste or exemption from hazardous waste regulation, and the disposition of the waste, in the facility's onsite files.

- h. Generators must retain onsite a copy of all notices, certifications, waste analysis data, and other documentation produced pursuant to this section for at least three years from the date that the waste that is the subject of such documentation was last sent to onsite or offsite treatment, storage, or disposal. The three-year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the department. The requirements of this subdivision apply to solid wastes even when the hazardous characteristic is removed prior to disposal, or when the waste is excluded from the definition of hazardous or solid waste under sections 33-24-02-02 through 33-24-02-06, or exempted from hazardous waste regulation, subsequent to the point of generation.
- i. If a generator is managing a lab pack containing hazardous wastes and wishes to use the alternative treatment standard for lab packs found at subsection 3 of section 33-24-05-282:
 - (1) With the initial shipment of waste to a treatment facility, the generator must submit a notice that provides the information in column "subdivision i" in the generator paperwork requirements table of subdivision d, and the following certification. The certification, which must be signed by an authorized representative and must be placed in the generator's files, must say the following:

I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only wastes that have not been excluded under appendix VIII to chapter 33-24-05 and that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at subsection 3 of section 33-24-05-282. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.
 - (2) No further notification is necessary until such time that the wastes in the lab pack change, or the receiving facility changes, in which case a new notice and certification must be sent and a copy placed in the generator's file.
 - (3) If the lab pack contains characteristic hazardous wastes (D001-D043), underlying hazardous constituents (as defined in subsection 10 of section 33-24-05-251) need not be determined.
 - (4) The generator must also comply with the requirements in subdivisions f and g.

- j. Small quantity generators with tolling agreements pursuant to subsection 5 of section 33-24-03-04 must comply with the applicable notification and certification requirements of subsection 1 for the initial shipment of the waste subject to the agreement. Such generators must retain onsite a copy of the notification and certification, together with the tolling agreement, for at least three years after termination or expiration of the agreement. The three-year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the department.
2. Treatment facilities must test their wastes according to the frequency specified in their waste analysis plans as required by section 33-24-05-04 for permitted facilities or the applicable requirements of subsection 5 of section 33-24-06-16 for interim status facilities. Such testing must be performed as provided in subdivisions a, b, and c.
 - a. For wastes or contaminated soil with treatment standards expressed in the waste extract (toxicity characteristic leaching procedure), the owner or operator of the treatment facility must test an extract of the treatment residues, using test method 1311 (the toxicity characteristic leaching procedure, described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", environmental protection agency publication SW-846, as incorporated by reference in section 33-24-01-05) to assure that the treatment residues extract meet the applicable treatment standards.
 - b. For wastes or contaminated soil with treatment standards expressed as concentrations in the waste, the owner or operator of the treatment facility must test the treatment residues (not an extract of such residues) to assure that they meet the applicable treatment standards.
 - c. A one-time notice must be sent with the initial shipment of waste or contaminated soil to the land disposal facility. A copy of the notice must be placed in the treatment facility's file.
 - (1) No further notification is necessary until such time that the waste or receiving facility change, in which case a new notice must be sent and a copy placed in the treatment facility's file.
 - (2) The one-time notice must include these requirements:

Treatment Facility Paperwork Requirements Table	
Required Information	Subsection 2
1. Hazardous waste number or numbers and manifest number of first shipment.	√

2. The waste is subject to the land disposal restrictions. The constituents of concern for F001-F005, and F039, and underlying hazardous constituents in characteristic wastes, unless the waste will be treated and monitored for all constituents. If all constituents will be treated and monitored, there is no need to put them all on the land disposal restriction notice.	√
3. The notice must include the applicable wastewater/nonwastewater category (see subsections 7 and 11 of section 33-24-05-251), and subdivisions made within a waste code based on waste-specific criteria (such as D003 reactive cyanides).	√
4. Waste analysis data (when available).	√
5. For contaminated soil subject to land disposal restrictions as provided in subsection 1 of section 33-24-05-289, the constituents subject to treatment as described in subsection 4 of section 33-24-05-289, and the following statement: This contaminated soil [does/does not] contain listed hazardous waste and [does/does not] exhibit a characteristic of hazardous waste and [is subject to/complies with] the soil treatment standards as provided by subsection 3 of section 33-24-05-289.	√
6. A certification is needed (see applicable section for exact wording).	√

- d. The treatment facility must submit a one-time certification signed by an authorized representative with the initial shipment of waste or treatment residue of a restricted waste to the land disposal facility. The certification must state:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the treatment standards specified in section 33-24-05-280 without impermissible dilution of the prohibited waste. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

A certification is also necessary for contaminated soil and it must state:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and believe that it has been maintained and operated properly so as to comply with treatment standards specified in section 33-24-05-289 without impermissible dilution of the prohibited wastes. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

- (1) A copy of the certification must be placed in the treatment facility's onsite files. If the waste or treatment residue changes, or the receiving facility changes, a new certification must be sent to the receiving facility, and a copy placed in the file.
- (2) Debris excluded from the definition of hazardous waste under subsection 5 of section 33-24-02-03 (for example, debris treated by an extraction or destruction technology provided by table 1, section 33-24-05-285, and debris that the department has determined does not contain hazardous waste), however, is subject to the notification and certification requirements of subsection 4 rather than the certification requirements of this subdivision.
- (3) For wastes with organic constituents having treatment standards expressed as concentration levels, if compliance with the treatment standards is based in whole or in part on the analytical detection limit alternative specified in subsection 4 of section 33-24-05-280, the certification, signed by an authorized representative, must state the following:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by combustion units as specified in section 33-24-05-282, table 1. I have been unable to detect the nonwastewater organic constituents, despite having used best good-faith efforts to analyze for such constituents. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

- (4) For characteristic wastes that are subject to the treatment standards in section 33-24-05-280 (other than those expressed as a method of treatment), or section 33-24-05-289, and that contain underlying hazardous

constituents as defined in subsection 10 of section 33-24-05-251; if these wastes are treated onsite to remove the hazardous characteristic; and are then sent offsite for treatment of underlying hazardous constituents, the certification must state the following:

I certify under penalty of law that the waste has been treated in accordance with the requirements of section 33-24-05-280 or 33-24-05-289 to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

- (5) For characteristic wastes that contain underlying hazardous constituents as defined subsection 10 of section 33-24-05-251 that are treated onsite to remove the hazardous characteristic to treat underlying hazardous constituents to levels in section 33-24-05-288 universal treatment standards, the certification must state the following:

I certify under penalty of law that the waste has been treated in accordance with the requirements of section 33-24-05-280 to remove the hazardous characteristic and that underlying hazardous constituents, as defined in subsection 10 of section 33-24-05-251 have been treated onsite to meet the section 33-24-05-288 universal treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

- e. If the waste or treatment residue will be further managed at a different treatment, storage, or disposal facility, the treatment, storage, or disposal facility sending the waste or treatment residue offsite must comply with the notice and certification requirements applicable to generators under this section.
- f. Where the wastes are recyclable materials used in a manner constituting disposal subject to the provisions of subsection 2 of section 33-24-05-201 regarding treatment standards and prohibition levels, the owner or operator of a treatment facility (the recycler) is not required to notify the receiving facility, pursuant to subdivision c. With each shipment of such wastes the owner or operator of the recycling facility must submit a certification described in subdivision d, and a notice which includes the information listed in subdivision c (except the manifest number) to the department. The recycling facility also must keep records

of the name and location of each entity receiving the hazardous waste-derived product.

3. Except where the owner or operator is disposing of any waste that is a recyclable material used in a manner constituting disposal pursuant to subsection 2 of section 33-24-05-201, the owner or operator of any land disposal facility disposing any waste subject to restrictions under sections 33-24-05-250 through 33-24-05-299 must:
 - a. Have copies of the notice and certifications specified in subsection 1 or 2.
 - b. Test the waste, or an extract of the waste or treatment residue developed using test method 1311 (the toxicity characteristic leaching procedure, described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", environmental protection agency publication SW-846, as incorporated by reference in section 33-14-01-05), to assure that the wastes or treatment residues are in compliance with the applicable treatment standards set forth in sections 33-24-05-280 through 33-24-05-289. Such testing must be performed according to the frequency specified in the facility's waste analysis plan as required by section 33-24-05-04, or the applicable requirements of subsection 5 of section 33-24-06-16 for interim status facilities.
4. Generators or treaters who first claim that hazardous debris is excluded from the definition of hazardous waste under subsection 5 of section 33-24-02-03 (for example, debris treated by an extraction or destruction technology provided by table 1 in section 33-24-05-285, and debris that the department authorized to implement the requirements of sections 33-24-05-250 through 33-24-05-299 has determined does not contain hazardous waste) are subject to the following notification and certification requirements:
 - a. A one-time notification, including the following information, must be submitted to the department.
 - b. The notification must be updated if the debris is shipped to a different facility, and, for debris excluded under subdivision a of subsection 5 of section 33-24-02-03, if a different type of debris is treated or if a different technology is used to treat the debris.
 - c. For debris excluded under subdivision a of subsection 5 of section 33-24-02-03, the owner or operator of the treatment facility must document and certify compliance with the treatment standards of table 1 in section 33-24-05-285, as follows:

- (1) Records must be kept of all inspections, evaluations, and analyses of treated debris that are made to determine compliance with the treatment standards;
- (2) 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
- (3) 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 section 33-24-05-285. I am aware that there are significant penalties for making a false certification, including the possibility of fine and imprisonment.

5. Generators and treaters who first receive from the department a determination that a given contaminated soil subject to the land disposal restrictions as provided in subsection 1 of section 33-24-05-289 no longer contains a listed hazardous waste and generators and treaters who first determine that a contaminated soil subject to the land disposal restrictions as provided in subsection 1 of section 33-24-05-289 no longer exhibits a characteristic of hazardous waste must:
 - a. Prepare a one-time only documentation of these determinations, including all supporting information; and
 - b. Maintain that information in the facility files and other records for a minimum of three years.

History: Effective December 1, 1988; amended effective December 1, 1991; January 1, 1994; July 1, 1997; December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

~~33-24-05-257. [Reserved]~~

33-24-05-258. Special rules regarding wastes that exhibit a characteristic.

1. The initial generator of a solid waste must determine each hazardous waste number (waste code) applicable to the waste in order to determine the applicable treatment standards under sections 33-24-05-280 through 33-24-05-289. For purposes of sections 33-24-05-250 through 33-24-05-299, the waste will carry the waste code for any applicable listed waste as specified in sections 33-24-02-15 through 33-24-02-22. In addition, where the waste exhibits a characteristic, the waste will carry one or more of the characteristic waste codes specified in sections 33-24-02-10 through 33-24-02-14, except when the treatment standard for the listed waste operates in lieu of the treatment standard for the characteristic waste, as specified in subsection 2. If the generator determines that its waste displays a hazardous characteristic (and is not D001 nonwastewaters treated by CMBST, RORGS, or POLYM of section 33-24-05-282, table 1), the generator must determine the underlying hazardous constituents (as defined at subsection 10 of section 33-24-05-251) in the characteristic waste.
2. Where a prohibited waste is both listed under sections 33-24-02-15 through 33-24-02-19 and exhibits a characteristic under sections 33-24-02-10 through 33-24-02-14, the treatment standard for the waste code listed in sections 33-24-02-15 through 33-24-02-19 will operate in lieu of the standard for the waste code under sections 33-24-02-10 through 33-24-02-14 provided that the treatment standard for the listed waste includes a treatment standard for the constituent that causes the waste to exhibit the characteristic. Otherwise, the waste must meet the treatment standards for all applicable listed and characteristic waste codes.
3. In addition to any applicable standards determined from the initial point of generation, no prohibited waste which exhibits a characteristic under sections 33-24-02-10 through 33-24-02-14 may be land disposed unless the waste complies with the treatment standards under sections 33-24-05-280 through 33-24-05-289.
4. Wastes that exhibit a characteristic are also subject to section 33-24-05-256 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 department. 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 or if the permitted facility receiving the waste changes, or both change. However, the generator or treater need only notify the department on an annual basis if such changes occur. Such notification and certification should be sent to the department by the end of the calendar year, but no later than December thirty-first.

- a. The notification must include the following information:
 - (1) The name and address of the permitted facility receiving the waste shipment; and
 - (2) A description of the waste as initially generated, including the applicable codes, treatability groups, and underlying hazardous constituents (as defined in subsection 10 of section 33-24-05-251), unless the waste will be treated and monitored for all underlying hazardous constituents. If all underlying hazardous constituents will be treated and monitored, there is no requirement to list any of the underlying hazardous constituents on the notice.
- b. The certification must be signed by an authorized representative and must state the language specified in subdivision d of subsection 2 of section 33-24-05-256.
 - (1) If treatment removes the characteristic but does not meet standards applicable to underlying hazardous constituents, then the certification found in paragraph 4 of subdivision d of subsection 2 of section 33-24-05-256 applies.
 - (2) ~~[Reserved]~~

History: Effective December 1, 1991; amended effective January 1, 1994; July 1, 1997; December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

~~33-24-05-259. [Reserved]~~

~~33-24-05-260. [Reserved]~~

~~33-24-05-261. [Reserved]~~

~~33-24-05-262. [Reserved]~~

~~33-24-05-263. [Reserved]~~

~~33-24-05-264. [Reserved]~~

33-24-05-265. Surface impoundment exemptions.

- 1. This section defines additional circumstances under which an otherwise prohibited waste may continue to be placed in a surface impoundment.
- 2. Wastes that are newly identified or listed under section 3001 after November 8, 1984, and stored in a surface impoundment that is newly

subject to article 33-24 as a result of the additional identification or listing, may continue to be stored in the surface impoundment for forty-eight months after the promulgation of the additional listing or characteristic, notwithstanding that the waste is otherwise prohibited from land disposal, provided that the surface impoundment is in compliance with the requirements of subsection 5 of section 33-24-06-16 (subpart F of part 265 of 40 CFR) within twelve months after promulgation of the new listing or characteristic.

3. Wastes that are newly identified or listed under section 3001 after November 8, 1984, and treated in a surface impoundment that is newly subject to article 33-24 as a result of the additional identification or listing, may continue to be treated in that surface impoundment, notwithstanding that the waste is otherwise prohibited from land disposal, provided that surface impoundment is in compliance with the requirements of subsection 5 of section 33-24-06-16 (subpart F of part 265 of 40 CFR) within twelve months after the promulgation of the new listing or characteristic. In addition, if the surface impoundment continues to treat hazardous waste after forty-eight months from promulgation of the additional listing or characteristic, it must then be in compliance with section 33-24-05-253.

History: Effective January 1, 1994.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

~~33-24-05-266. [Reserved]~~

~~33-24-05-267. [Reserved]~~

~~33-24-05-268. [Reserved]~~

~~33-24-05-269. [Reserved]~~

33-24-05-270. Waste specific prohibitions - Wood preserving wastes.

1. Effective August 11, 1997, the following wastes are prohibited from land disposal: the wastes specified in chapter 33-24-02 as hazardous waste numbers F032, F034, and F035.
2. Effective May 12, 1999, the following wastes are prohibited from land disposal: soil and debris contaminated with F032, F034, F035; and radioactive wastes mixed with hazardous waste numbers F032, F034, and F035.
3. Between May 12, 1997, and May 12, 1999, soil and debris contaminated with F032, F034, F035 and radioactive waste mixed with F032, F034, and F035 may be disposed in a landfill or surface impoundment

only if such unit is in compliance with the requirements specified in subdivision b of subsection 8 of section 33-24-05-254.

4. The requirements of subsections 1 and 2 do not apply if:
 - a. The wastes meet the applicable treatment standards specified in sections 33-24-05-280 through 33-24-05-289;
 - b. Persons have been granted an exemption from a prohibition pursuant to a petition under section 33-24-05-255, with respect to those wastes and units covered by the petition;
 - c. The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under section 33-24-05-284; or
 - d. Persons have been granted an extension to the effective date of a prohibition pursuant to section 33-24-05-254, with respect to those wastes covered by the extension.
5. To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in section 33-24-05-280, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable universal treatment standards levels of section 33-24-05-288, the waste is prohibited from land disposal, and all requirements of sections 33-24-05-250 through 33-24-05-299 are applicable, except as otherwise specified.

History: Effective December 1, 1988; amended effective December 1, 1991; December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-271. Waste specific prohibitions - Dioxin-containing wastes.

1. Effective November 8, 1988, the dioxin-containing wastes specified in section 33-24-02-16 as hazardous waste numbers F020, F021, F022, F023, F026, F027, and F028 are prohibited from land disposal unless the F020-F023 and F026-F028 dioxin-containing waste is contaminated soil and debris resulting from a response action taken under section 104 or 106 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 or a corrective action taken under subtitle C of the Resource Conservation and Recovery Act.

2. Effective November 8, 1990, the F020-F023 and F026-F028 dioxin-containing wastes listed in subdivision a of subsection 1 are prohibited from land disposal.
3. Between November 8, 1988, and November 8, 1990, wastes included in subdivision a of subsection 1 may be disposed in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in subdivision b of subsection 8 of section 33-24-05-254 and all other applicable requirements of chapter 33-24-05.
4. The requirements of subsections 1 and 2 do not apply if:
 - a. The wastes meet the standards of sections 33-24-05-280 through 33-24-05-289;
 - b. Persons have been granted an exemption from a prohibition pursuant to a petition under section 33-24-05-255, with respect to those wastes and units covered by the petition; or
 - c. Persons have been granted an extension to the effective date of a prohibition pursuant to section 33-24-05-254, with respect to those wastes covered by the extension.

History: Effective December 1, 1988; amended effective December 1, 1991; December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-272. Waste specific prohibitions - Soils exhibiting the toxicity characteristic for metals and containing polychlorinated biphenyls.

1. Effective December 26, 2000, the following wastes are prohibited from land disposal: any volumes of soil exhibiting the toxicity characteristic solely because of the presence of metals (D004 through D011) and containing polychlorinated biphenyls.
2. The requirements of subsection 1 do not apply if:
 - a. The wastes:
 - (1) Contain halogenated organic compounds in total concentration less than one thousand milligrams per kilogram; and
 - (2) Meet the treatment standards specified in sections 33-24-05-280 through 33-24-05-289 for hazardous waste numbers D004 through D011, as applicable;
 - b. The wastes:

- (1) Contain halogenated organic compounds in total concentration less than one thousand milligrams per kilogram; and
 - (2) Meet the alternative treatment standards specified in section 33-24-05-289 for contaminated soil;
- c. Persons have been granted an exemption from a prohibition pursuant to a petition under section 33-24-05-255, with respect to those wastes and units covered by the petition; or
 - d. The wastes meet applicable alternative treatment standards established pursuant to a petition granted under section 33-24-05-284.

History: Effective December 1, 1988; amended effective December 1, 1991; January 1, 1994; July 1, 1997; December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-273. Waste specific prohibitions - Chlorinated aliphatic wastes.

- 1. Effective May 8, 2001, the wastes specified in chapter 33-24-02 as hazardous waste numbers K174 and K175, soil and debris contaminated with these wastes, radioactive wastes mixed with these wastes, and soil and debris contaminated with radioactive wastes mixed with these wastes are prohibited from land disposal.
- 2. The requirements of subsection 1 do not apply if:
 - a. The wastes meet the applicable treatment standards specified in sections 33-24-05-280 through 33-24-05-289;
 - b. Persons have been granted an exemption from a prohibition pursuant to a petition under section 33-24-05-255, with respect to those wastes and units covered by the petition;
 - c. The wastes meet the applicable treatment standards established pursuant to a petition granted under section 33-24-05-284;
 - d. Hazardous debris has met the treatment standards in section 33-24-05-280 or the alternative treatment standards in section 33-24-05-285; or
 - e. Persons have been granted an extension to the effective date of a prohibition pursuant to section 33-24-05-254, with respect to these wastes covered by the extension.

3. To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in section 33-24-05-280, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains regulated constituents in excess of the applicable levels of sections 33-24-05-280 through 33-24-05-289, the waste is prohibited from land disposal, and all requirements of sections 33-24-05-250 through 33-24-05-299 are applicable, except as otherwise specified.
4. Disposal of K175 wastes that have complied with all applicable section 33-24-05-280 treatment standards must also be macroencapsulated in accordance with section 33-24-05-285 table 1 unless the waste is placed in:
 - a. An article 33-24 monofill containing only K175 wastes that meet all applicable section 33-24-05-280 treatment standards; or
 - b. A dedicated article 33-24 landfill cell in which all other wastes being codisposed are at pH of 6.0 or less.

History: Effective December 1, 1991; amended effective January 1, 1994; July 1, 1997; December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-274. Waste specific prohibitions - Toxicity characteristic metal wastes.

1. Effective August 24, 1998, the following wastes are prohibited from land disposal: the wastes specified in chapter 33-24-02 as hazardous waste numbers D004 through D011 that are newly identified (for example, wastes, soil, or debris identified as hazardous by the toxic characteristic leaching procedure but not the extraction procedure), and waste, soil, or debris from mineral processing operations that is identified as hazardous by the specifications at chapter 33-24-02.
2. Effective November 26, 1998, the following waste is prohibited from land disposal: slag from secondary lead smelting which exhibits the toxicity characteristic due to the presence of one or more metals listed in section 33-24-02-14.
3. Effective May 26, 2000, the following wastes are prohibited from land disposal: newly identified characteristic wastes from elemental phosphorus processing, radioactive waste mixed with D004 through D011 wastes that are newly identified (for example, wastes, soil, or debris identified as hazardous by the toxic characteristic leaching

procedure but not the extraction procedure); or mixed with newly identified characteristic mineral processing wastes, soil, or debris.

4. Between May 26, 1998, and May 26, 2000, newly identified characteristic wastes from elemental phosphorus processing, radioactive waste mixed with D004 through D011 wastes that are newly identified (for example, wastes, soil, or debris identified as hazardous by the toxicity characteristic leaching procedure but not the extraction procedure), or mixed with newly identified characteristic mineral processing wastes, soil, or debris may be disposed in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in subsection 8 of section 33-24-05-254.
5. The requirements of subsections 1 and 2 do not apply if:
 - a. The wastes meet the applicable treatment standards specified in sections 33-24-05-280 through 33-24-05-289;
 - b. Persons have been granted an exemption from a prohibition pursuant to a petition under section 33-24-05-255, with respect to those wastes and units covered by the petition;
 - c. The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under section 33-24-05-284; or
 - d. Persons have been granted an extension to the effective date of a prohibition pursuant to section 33-24-05-254, with respect to these wastes covered by the extension.
6. To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in section 33-24-05-280, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents (including underlying hazardous constituents in characteristic wastes) in excess of the applicable universal treatment standard levels of section 33-24-05-288, the waste is prohibited from land disposal, and all requirements of sections 33-24-05-250 through 33-24-05-299 are applicable, except as otherwise specified.

History: Effective December 1, 1991; amended effective July 1, 1997; December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-275. Waste specific prohibitions - Petroleum refining wastes.

1. Effective February 8, 1999, the wastes specified in chapter 33-24-02 as hazardous waste numbers K169, K170, K171, and K172, soils and debris contaminated with these wastes, radioactive wastes mixed with these hazardous wastes, and soils and debris contaminated with these radioactive mixed wastes, are prohibited from land disposal.
2. The requirements of subsection 1 do not apply if:
 - a. The wastes meet the applicable treatment standards specified in sections 33-24-05-280 through 33-24-05-289;
 - b. Persons have been granted an exemption from a prohibition pursuant to a petition under section 33-24-05-255, with respect to those wastes and units covered by the petition;
 - c. The wastes meet the applicable treatment standards established pursuant to a petition granted under section 33-24-05-284;
 - d. Hazardous debris that has met treatment standards in section 33-24-05-280 or in the alternative treatment standards in section 33-24-05-285; or
 - e. Persons have been granted an extension to the effective date of a prohibition pursuant to section 33-24-05-254, with respect to these wastes covered by the extension.
3. To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in section 33-24-05-280, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable universal treatment standard levels of section 33-24-05-288, the waste is prohibited from land disposal, and all requirements of sections 33-24-05-250 through 33-24-05-299 are applicable, except as otherwise specified.

History: Effective December 1, 1991; amended effective January 1, 1994; July 1, 1997; December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-276. Waste specific prohibitions - Inorganic chemical wastes.

1. Effective May 20, 2002, the wastes specified in chapter 33-24-02 as hazardous waste numbers K176, K177, and K178, and soil and debris

contaminated with these wastes, radioactive wastes mixed with these wastes, and soil and debris contaminated with radioactive wastes mixed with these wastes are prohibited from land disposal.

2. The requirements of subsection 1 do not apply if:
 - a. The wastes meet the applicable treatment standards specified in sections 33-24-05-280 through 33-24-05-289;
 - b. Persons have been granted an exemption from a prohibition pursuant to a petition under section 33-24-05-255, with respect to those wastes and units covered by the petition;
 - c. The wastes meet the applicable treatment standards established pursuant to a petition granted under section 33-24-05-284;
 - d. Hazardous debris has met the treatment standards in section 33-24-05-280 or the alternative treatment standards in section 33-24-05-285; or
 - e. Persons have been granted an extension to the effective date of a prohibition pursuant to section 33-24-05-254, with respect to these wastes covered by the extension.
3. To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in section 33-24-05-280, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains regulated constituents in excess of the applicable levels provided in sections 33-24-05-280 through 33-24-05-289, the waste is prohibited from land disposal, and all requirements of sections 33-24-05-250 through 33-24-05-299 are applicable, except as otherwise specified.

History: Effective January 1, 1994; amended effective July 1, 1997; December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-277. Waste specific prohibitions - Ignitable and corrosive characteristic wastes whose treatment standards were vacated.

1. Effective August 9, 1993, the wastes specified in section 33-24-02-11 as D001 (and is not in the high total organic compound ignitable liquids subcategory), and specified in section 33-24-02-12 as D002, that are managed in systems other than those whose discharge is regulated under the Clean Water Act (CWA), or that inject in class I deep wells

regulated under the Safe Drinking Water Act (SDWA), or that are zero dischargers that engage in Clean Water Act equivalent treatment before ultimate land disposal, are prohibited from land disposal. Clean Water Act equivalent treatment means biological treatment for organics, alkaline chlorination or ferrous sulfate precipitation for cyanide, precipitation or sedimentation or both for metals, reduction of hexavalent chromium, or other treatment technology that can be demonstrated to perform equally or greater than these technologies.

2. Effective February 10, 1994, the wastes specified in section 33-24-02-11 as D001 (and is not in the high total organic compound ignitable liquids subcategory), and specified in section 33-24-02-12 as D002, that are managed in systems defined in 40 CFR 144.6(e) and 146.6(e) as class V injection wells, that do not engage in Clean Water Act-equivalent treatment before injection, are prohibited from land disposal.

History: Effective January 1, 1994.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-278. Waste specific prohibitions - Newly identified organic toxicity characteristic wastes and newly listed coke byproduct and chlorotoluene production wastes.

1. Effective December 19, 1994, the wastes specified in section 33-24-05-272 as hazardous waste numbers K141, K142, K143, K144, K145, K147, K148, K149, K150, and K151 are prohibited from land disposal. In addition, debris contaminated with hazardous waste numbers F037, F038, K107 through K112, K117, K118, K123 through K126, K131, K132, K136, U328, U353, U359, and soil and debris contaminated with D012 through D043, K141 through K145, and K147 through K151 are prohibited from land disposal. The following wastes that are specified in section 33-24-02-14, table 1 as hazardous waste numbers: D012, D013, D014, D015, D016, D017, D018, D019, D020, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D031, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043 that are not radioactive, or that are managed in systems other than those whose discharge is regulated under the Clean Water Act, or that are zero discharges that do not engage in Clean Water Act-equivalent treatment before ultimate land disposal, or that are injected in class I deep wells regulated under the Safe Drinking Water Act, are prohibited from land disposal. Clean Water Act-equivalent treatment means biological treatment for organics, alkaline chlorination or ferrous sulfate precipitation for cyanide, precipitation or sedimentation for metals, reduction of hexavalent chromium, or other treatment technology that can be demonstrated to perform equally or better than these technologies.

2. On September 19, 1996, radioactive wastes that are mixed with D018 through D043 that are managed in systems other than those whose discharge is regulated under the Clean Water Act, or that inject in class I deep wells regulated under the Safe Drinking Water Act, or that are zero dischargers that engage in Clean Water Act-equivalent treatment before ultimate land disposal, are prohibited from land disposal. Clean Water Act-equivalent treatment means biological treatment for organics, alkaline chlorination or ferrous sulfate precipitation for cyanide, precipitation or sedimentation for metals, reduction of hexavalent chromium, or other treatment technology that can be demonstrated to perform equally or greater than these technologies. Radioactive wastes mixed with K141 through K145, and K147 through K151 are also prohibited from land disposal. In addition, soil and debris contaminated with these radioactive mixed wastes are prohibited from land disposal.
3. Between December 19, 1994, and September 19, 1996, the wastes included in subsection 2 may be disposed in a landfill or surface impoundment, only if such unit is in compliance with the requirements specified in subdivision b of subsection 8 of section 33-24-05-254.
4. The requirements of subsections 1, 2, and 3 do not apply if:
 - a. The wastes meet the applicable treatment standards specified in sections 33-24-05-280 through 33-24-05-289;
 - b. Persons have been granted an exemption from a prohibition pursuant to a petition under section 33-24-05-255, with respect to those wastes and units covered by the petition;
 - c. The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under section 33-24-05-284; or
 - d. Persons have been granted an extension to the effective date of a prohibition pursuant to section 33-24-05-254, with respect to these wastes covered by the extension.
5. To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in section 33-24-05-280, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable levels found in sections 33-24-05-280 through 33-24-05-289, the waste is prohibited

from land disposal, and all requirements of sections 33-24-05-250 through 33-24-05-299 are applicable, except as otherwise specified.

History: Effective July 1, 1997; amended effective December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-279. Waste specific prohibitions - Spent aluminum potliners; reactive; and carbamate wastes.

1. On July 8, 1996, the wastes specified in section 33-24-02-17 as hazardous waste numbers K156 through K159, and K161; and in section 33-24-02-18 as hazardous waste numbers P127, P128, P185, P188 through P192, P194, P196 through P199, P201 through P205, U271, U278 through U280, U364, U367, U372, U373, U387, U389, U394, U395, U404, and U409 through U411 are prohibited from land disposal. In addition, soil and debris contaminated with these wastes are prohibited from land disposal.
2. On July 8, 1996, the wastes identified in section 33-24-02-13 as D003 that are managed in systems other than those whose discharge is regulated under the Clean Water Act, or that inject in class I deep wells regulated under the Safe Drinking Water Act, or that are zero dischargers that engage in Clean Water Act-equivalent treatment before ultimate land disposal, are prohibited from land disposal. This prohibition does not apply to unexploded ordnance and other explosive devices which have been the subject of an emergency response. (Such D003 wastes are prohibited unless they meet the treatment standard of DEACT before land disposal (see section 33-24-05-280)).
3. On September 21, 1998, the wastes specified in section 33-24-02-17 as hazardous waste number K088 are prohibited from land disposal. In addition, soil and debris contaminated with these wastes are prohibited from land disposal.
4. On April 8, 1998, radioactive wastes mixed with K088, K156 through K159, K161, P127, P128, P185, P188 through P192, P194, P196 through P199, P201 through P205, U271, U278 through U280, U364, U367, U372, U373, U387, U389, U394, U395, U404, and U409 through U411 are also prohibited from land disposal. In addition, soil and debris contaminated with these radioactive mixed wastes are prohibited from land disposal.
5. Between July 8, 1996, and April 8, 1998, the wastes included in subsections 1, 3, and 4 may be disposed in a landfill or surface impoundment, only if such unit is in compliance with the requirements specified in subdivision b of subsection 8 of section 33-24-05-254.
6. The requirements of subsections 1 through 4 do not apply if:

- a. The wastes meet the applicable treatment standards specified in sections 33-24-05-280 through 33-24-05-289;
 - b. Persons have been granted an exemption from a prohibition pursuant to a petition under section 33-24-05-255, with respect to those wastes and units covered by the petition;
 - c. The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under section 33-24-05-284; or
 - d. Persons have been granted an extension to the effective date of a prohibition pursuant to section 33-24-05-254, with respect to these wastes covered by the extension.
7. To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in section 33-24-05-280, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable sections 33-24-05-280 through 33-24-05-289 levels, the waste is prohibited from land disposal, and all requirements of sections 33-24-05-250 through 33-24-05-299 are applicable, except as otherwise specified.

History: Effective July 1, 1997; amended effective December 1, 2003.

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-05-280. Applicability of treatment standards.

1. A prohibited waste identified in the table "Treatment Standards for Hazardous Wastes" may be land disposed only if it meets the requirements found in the table. For each waste, the table identifies one of three types of treatment standard requirements:
 - a. All hazardous constituents in the waste or in the treatment residue must be at or below the values found in the table for that waste ("Total Waste Standards");
 - b. The hazardous constituents in the extract of the waste or in the extract of the treatment residue must be at or below the values found in the table ("Waste Extract Standards"); or
 - c. The waste must be treated using the technology specified in the table ("Technology Standard"), which are described in detail in section 33-24-05-282, table 1-Technology Codes and Description of Technology-Based Standards.

2. For wastewaters, compliance with concentration level standards is based on maximums for any one day, except for D004 through D011 wastes for which the previously promulgated treatment standards based on grab samples remain in effect. For all nonwastewaters, compliance with concentration level standards is based on grab sampling. For wastes covered by the waste extract standards, the test method 1311, the toxicity characteristic leaching procedure found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", environmental protection agency publication SW-846, as incorporated by reference in section 33-24-01-05, must be used to measure compliance. An exception is made for D004 and D008, for which either of two test methods may be used: method 1311, or method 1310, the extraction procedure toxicity test. For wastes covered by a technology standard, the wastes may be land disposed after being treated using that specified technology or an equivalent treatment technology approved by the department under the procedures set forth in subsection 2 of section 33-24-05-282.
3. When wastes with differing treatment standards for a constituent of concern are combined for purposes of treatment, the treatment residue must meet the lowest treatment standard for the constituent of concern.
4. Notwithstanding the prohibitions specified in subsection 1, treatment and disposal facilities may demonstrate (and certify pursuant to subdivision e of subsection 2 of section 33-24-05-256) compliance with the treatment standards for organic constituents specified by a footnote in the table "Treatment Standards for Hazardous Wastes" in this section, provided the following conditions are satisfied:
 - a. The treatment standards for the organic constituents were established based on incineration in units operated in accordance with the technical requirements of sections 33-24-05-144 through 33-24-05-159, or based on combustion in fuel substitution units operating in accordance with applicable technical requirements;
 - b. The treatment or disposal facility has used the methods referenced in subdivision a to treat the organic constituents; and
 - c. The treatment or disposal facility may demonstrate compliance with organic constituents if good-faith analytical efforts achieve detection limits for the regulated organic constituents that do not exceed the treatment standards specified in this section by an order of magnitude.
5. For characteristic wastes (D001 through D043) that are subject to treatment standards in the following table "Treatment Standards for Hazardous Wastes", and are not managed in a wastewater treatment system that is regulated under the Clean Water Act, that is CWA-equivalent, or that is injected into a class I nonhazardous deep

injection well, all underlying hazardous constituents (as defined in subsection 10 of section 33-24-05-251) must meet universal treatment standards, found in section 33-24-05-288, table "Universal Treatment Standards", prior to land disposal as defined in subsection 6 of section 33-24-05-251.

6. The treatment standards for F001 through F005 nonwastewater constituents carbon disulfide, cyclohexanone, or methanol apply to wastes which contain only one, two, or three of these constituents. Compliance is measured for these constituents in the waste extract from test method 1311, the toxicity characteristic leaching procedure found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", environmental protection agency publication SW-846, as incorporated by reference in section 33-24-01-05. If the waste contains any of these three constituents along with any of the other twenty-five constituents found in F001 through F005, then compliance with treatment standards for carbon disulfide, cyclohexanone, or methanol are not required.
7. Between August 26, 1996, and March 4, 1999, the treatment standards for the wastes specified in section 33-24-02-17 as hazardous waste numbers K156 through K159 and K161; and in section 33-24-02-18 as hazardous waste numbers P127, P128, P185, P188 through P192, P194, P196 through P199, P201 through P205, U271, U277 through U280, U364 through U367, U372, U373, U375 through U379, U381 through U387, U389 through U396, U400 through U404, U407, and U409 through U411; and soil contaminated with these wastes; may be satisfied by either meeting the constituent concentrations presented in the table "Treatment Standards for Hazardous Waste", or by treating the waste by the following technologies: combustion, as defined by the technology code CMBST in table 1 in section 33-24-05-282, for nonwastewaters; and, biodegradation as defined by the technology code BIODG, carbon adsorption as defined by the technology code CARBN, chemical oxidation as defined by the technology code CHOXD, or combustion as defined by the technology code CMBST in table 1 of section 33-24-05-282, for wastewaters.
8. Prohibited D004 through D011 mixed radioactive wastes and mixed radioactive listed wastes containing metal constituents, that were previously treated by stabilization to the treatment standards in effect at that time and then put into storage, do not have to be retreated to meet treatment standards in this section prior to land disposal.
- ~~9. [Reserved]~~
10. Effective September 4, 1998, the treatment standards for the wastes specified in section 33-24-02-18 as hazardous waste numbers P185, P191, P192, P197, U364, U394, and U395 may be satisfied by either meeting the constituent concentrations presented in the table

"Treatment Standards for Hazardous Wastes" in this section, or by treating the waste by the following technologies: combustion, as defined by the technology code CMBST in table 1 of section 33-24-05-282, for nonwastewaters; and biodegradation as defined by the technology code BIODG, carbon adsorption as defined by the technology code CARBN, chemical oxidation as defined by the technology code CHOXD, or combustion as defined by the technology code CMBST in table 1 in section 33-24-05-282, for wastewaters.

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
321	D001 ⁹	Ignitable characteristic wastes, except for the subdivision a of subsection 1 of section 33-24-02-11 high total organic carbon subcategory.	NA	DEACT and meet section 33-24-05-288 standards ⁸ ; or RORGS; or CMBST	DEACT and meet section 33-24-05-288 standards ⁸ ; or RORGS; or CMBST
		High total organic carbon ignitable characteristic liquids subcategory based on subdivision a of subsection 1 of section 33-24-02-11 - Greater than or equal to 10% total organic carbon. (Note: This subcategory consists of nonwastewaters only.)	NA	NA	RORGS; CMBST; or POLYM
	D002 ⁹	Corrosive characteristic wastes.	NA	DEACT and meet section 33-24-05-288 standards ⁸	DEACT and meet section 33-24-05-288 standards ⁸
	D002, D004, D005, D006, D007, D008, D009, D010, D011	Radioactive high level wastes generated during the reprocessing of fuel rods. (Note: This subcategory consists of nonwastewaters only.)	Corrosivity (pH)	NA	HLVIT
		Arsenic	7440-38-2	NA	HLVIT
		Barium	7440-39-3	NA	HLVIT
		Cadmium	7440-43-9	NA	HLVIT
		Chromium (Total)	7440-47-3	NA	HLVIT
		Lead	7439-92-1	NA	HLVIT

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters	
		Common Name	CAS ² No.	Concentration mg/l ³ , or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code	
D003 ⁹	Reactive sulfides subcategory based on subdivision e of subsection 1 of section 33-24-02-13.	Mercury	7439-97-6	NA	HLVIT	
		Selenium	7782-49-2	NA	HLVIT	
		Silver	7440-22-4	NA	HLVIT	
		NA	NA	DEACT	DEACT	
		Explosives subcategory based on subdivisions f, g, and h of subsection 1 of section 33-24-02-13.	NA	NA	DEACT and meet section 33-24-05-288 standards ⁸	DEACT and meet section 33-24-05-288 standards ⁸
		Unexploded ordnance and other explosive devices which have been the subject of an emergency response.	NA	NA	DEACT	DEACT
		Other reactives subcategory based on subdivision a of subsection 1 of section 33-24-02-13.	NA	NA	DEACT and meet section 33-24-05-288 standards ⁸	DEACT and meet section 33-24-05-288 standards ⁸
		Water reactive subcategory based on subdivisions b, c, and d of subsection 1 of section 33-24-02-13. (Note: This subcategory consists of nonwastewaters only.)	NA	NA	NA	DEACT and meet section 33-24-05-288 standards ⁸
D004 ⁹	Reactive cyanides subcategory based on subdivision e of subsection 1 of section 33-24-02-13.	Cyanides (Total) ⁷	57-12-5	Reserved	590	
		Cyanides (Amenable) ⁷	57-12-5	0.86	30	
		Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for arsenic based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Arsenic	7440-38-2	1.4 and meet section 33-24-05-288 standards ⁸	5.0 mg/l TCLP and meet section 33-24-05-288 standards ⁸

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
D005 ⁹	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for barium based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Barium	7440-39-3	1.2 and meet section 33-24-05-288 standards ⁸	2.1 mg/l TCLP and meet section 33-24-05-288 standards ⁸
D006 ⁹	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for cadmium based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Cadmium	7440-43-9	0.69 and meet section 33-24-05-288 standards ⁸	0.11 mg/l TCLP and meet section 33-24-05-288 standards ⁸
	Cadmium containing batteries subcategory (Note: This subcategory consists of nonwastewaters only.)	Cadmium	7440-43-9	NA	RTHRM
	Radioactively contaminated cadmium containing batteries. (Note: This subcategory consists of nonwastewaters only.)	Cadmium	7440-43-9	NA	Macroencapsulation in accordance with section 33-24-05-285
D007 ⁹	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for chromium based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Chromium (Total)	7440-47-3	2.77 and meet section 33-24-05-288 standards ⁸	0.60 mg/l TCLP and meet section 33-24-05-288 standards ⁸
D008 ⁹	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for lead based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Lead	7439-92-1	0.69 and meet section 33-24-05-288 standards ⁸	0.75 mg/l TCLP and meet section 33-24-05-288 standards ⁸

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
324	Lead acid batteries subcategory (Note: This standard only applies to lead acid batteries that are identified as Resource Conservation and Recovery Act hazardous wastes and that are not excluded elsewhere from regulation under the land disposal restrictions of sections 33-24-05-250 through 33-24-05-299 or exempted under other regulations. This subcategory consists of nonwastewaters only.)	Lead	7439-92-1	NA	RLEAD
	Radioactive lead solids subcategory (Note: These lead solids include, but are not limited to, all forms of lead shielding and other elemental forms of lead. These lead solids do not include treatment residuals such as hydroxide sludges, other wastewater treatment residuals, or incinerator ashes that can undergo conventional pozzolanic stabilization, nor do they include organo-lead materials that can be incinerated and stabilized as ash. This subcategory consists of nonwastewaters only.)	Lead	7439-92-1	NA	MACRO
	D009 ⁹ Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846; and contain greater than or equal to 260 mg/kg total mercury that also contain organics and are not incinerator residues (high mercury-organic subcategory).	Mercury	7439-97-6	NA	IMERC; OR RMERC

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters Concentration mg/l ³ , or Technology Code ⁴	Nonwastewaters Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
		Common Name	CAS ² No.		
325	Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846; and contain greater than or equal to 260 mg/kg total mercury that are inorganic, including incinerator residues and residues from RMERC (high mercury-inorganic subcategory).	Mercury	7439-97-6	NA	RMERC
	Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846; and contain less than 260 mg/kg total mercury (low mercury subcategory).	Mercury	7439-97-6	NA	0.20 mg/l TCLP and meet section 33-24-05-288 standards ⁸
	All other nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846; and contain less than 260 mg/kg total mercury and that are not residues from RMERC (low mercury subcategory).	Mercury	7439-97-6	NA	0.25 mg/l TCLP and meet section 33-24-05-288 standards ⁸
	All D009 wastewaters.	Mercury	7439-97-6	0.15	NA
	Elemental mercury contaminated with radioactive materials. (Note: This subcategory consists of nonwastewaters only.)	Mercury	7439-97-6	NA	AMLGM
	Hydraulic oil contaminated with mercury radioactive materials subcategory. (Note: This subcategory consists of nonwastewaters only.)	Mercury	7439-97-6	NA	IMERC

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
326	Radioactively contaminated mercury containing batteries. (Note: This subcategory consists of nonwastewaters only.)	Mercury	7439-97-6	NA	Macroencapsulation in accordance with section 33-24-05-285
	D010 ⁹ Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for selenium based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Selenium	7782-49-2	0.82 and meet section 33-24-05-288 standards ⁸	5.7 mg/l TCLP and meet section 33-24-05-288 standards ⁸
	D011 ⁹ Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for silver based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Silver	7440-22-4	0.43 and meet section 33-24-05-288 standards ⁸	0.14 mg/l TCLP and meet section 33-24-05-288 standards ⁸
	Radioactively contaminated silver containing batteries. (Note: This subcategory consists of nonwastewaters only.)	Silver	7440-22-4	NA	Macroencapsulation in accordance with section 33-24-05-285
	D012 ⁹ Wastes that are toxicity characteristic for endrin based on the toxicity characteristic leaching procedure in SW846 Method 1311.	Endrin	72-20-8	BIODG; or CMBST	0.13 and meet section 33-24-05-288 standards ⁸
		Endrin aldehyde	7421-93-4	BIODG; or CMBST	0.13 and meet section 33-24-05-288 standards ⁸
	D013 ⁹ Wastes that are toxicity characteristic for lindane based on the toxicity characteristic leaching procedure in SW846 Method 1311.	alpha-BHC	319-84-6	CARBN; or CMBST	0.066 and meet section 33-24-05-288 standards ⁸
		beta-BHC	319-85-7	CARBN; or CMBST	0.066 and meet section 33-24-05-288 standards ⁸
		delta-BHC	319-86-8	CARBN; or CMBST	0.066 and meet section 33-24-05-288 standards ⁸

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
		gamma-BHC (Lindane)	58-89-9	CARBN; or CMBST	0.066 and meet section 33-24-05-288 standards ⁹
D014 ⁹	Wastes that are toxicity characteristic for methoxychlor based on the toxicity characteristic leaching procedure in SW846 Method 1311.	Methoxychlor	72-43-5	WETOX or CMBST	0.18 and meet section 33-24-05-288 standards ⁸
D015 ⁹	Wastes that are toxicity characteristic for toxaphene based on the toxicity characteristic leaching procedure in SW846 Method 1311.	Toxaphene	8001-35-2	BIODG or CMBST	2.6 and meet section 33-24-05-288 standards ⁸
D016 ⁹	Wastes that are toxicity characteristic for 2,4-D(2,4-Dichlorophenoxyacetic acid) based on the toxicity characteristic leaching procedure in SW 846 Method 1311.	2,4-D(2,4-Dichlorophenoxyacetic acid)	94-75-7	CHOXD; BIODG; or CMBST	10 and meet section 33-24-05-288 standards ⁸
D017 ⁹	Wastes that are toxicity characteristic for 2,4,5-TP(Silvex) based on the toxicity characteristic leaching procedure in SW846 Method 1311.	2,4,5-TP(Silvex)	93-72-1	CHOXD or CMBST	7.9 and meet section 33-24-05-288 standards ⁸
D018 ⁹	Wastes that are toxicity characteristic for benzene based on the toxicity characteristic leaching procedure in SW846 Method 1311.	Benzene	71-43-2	0.14 and meet section 33-24-05-288 standards ⁸	10 and meet section 33-24-05-288 standards ⁸
D019 ⁹	Wastes that are toxicity characteristic for carbon tetrachloride based on the toxicity characteristic leaching procedure in SW846 Method 1311.	Carbon tetrachloride	56-23-5	0.057 and meet section 33-24-05-288 standards ⁸	6.0 and meet section 33-24-05-288 standards ⁸
D020 ⁹	Wastes that are toxicity characteristic for chlordane based on the toxicity characteristic leaching procedure in SW846 Method 1311.	Chlordane (alpha and gamma isomers)	57-74-9	0.0033 and meet section 33-24-05-288 standards ⁸	0.26 and meet section 33-24-05-288 standards ⁸

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
D021 ⁹	Wastes that are toxicity characteristic for chlorobenzene based on the toxicity characteristic leaching procedure in SW846 Method 1311.	Chlorobenzene	108-90-7	0.057 and meet section 33-24-05-288 standards ⁸	6.0 and meet section 33-24-05-288 standards ⁸
D022 ⁹	Wastes that are toxicity characteristic for chloroform based on the toxicity characteristic leaching procedure in SW846 Method 1311.	Chloroform	67-66-3	0.046 and meet section 33-24-05-288 standards ⁸	6.0 and meet section 33-24-05-288 standards ⁸
D023 ⁹	Wastes that are toxicity characteristic for o-cresol based on the toxicity characteristic leaching procedure in SW846 Method 1311.	o-Cresol	95-48-7	0.11 and meet section 33-24-05-288 standards ⁸	5.6 and meet section 33-24-05-288 standards ⁸
D024 ⁹	Wastes that are toxicity characteristic for m-cresol based on the toxicity characteristic leaching procedure in SW846 Method 1311.	m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77 and meet section 33-24-05-288 standards ⁸	5.6 and meet section 33-24-05-288 standards ⁸
D025 ⁹	Wastes that are toxicity characteristic for p-cresol based on the toxicity characteristic leaching procedure in SW846 Method 1311.	p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77 and meet section 33-24-05-288 standards ⁸	5.6 and meet section 33-24-05-288 standards ⁸
D026 ⁹	Wastes that are toxicity characteristic for cresols (total) based on the toxicity characteristic leaching procedure in SW846 Method 1311.	Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)	1319-77-3	0.88 and meet section 33-24-05-288 standards ⁸	11.2 and meet section 33-24-05-288 standards ⁸
D027 ⁹	Wastes that are toxicity characteristic for p-dichloro-benzene based on the toxicity characteristic leaching procedure in SW846 Method 1311.	p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	0.090 and meet section 33-24-05-288 standards ⁸	6.0 and meet section 33-24-05-288 standards ⁸
D028 ⁹	Wastes that are toxicity characteristic for 1,2-dichloroethane based on the toxicity characteristic leaching procedure in SW846 Method 1311.	1,2-Dichloroethane	107-06-2	0.21 and meet section 33-24-05-288 standards ⁸	6.0 and meet section 33-24-05-288 standards ⁸

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
D029 ⁹	Wastes that are toxicity characteristic for 1,1-dichloroethylene based on the toxicity characteristic leaching procedure in SW846 Method 1311.	1,1-Dichloroethylene	75-35-4	0.025 and meet section 33-24-05-288 standards ⁸	6.0 and meet section 33-24-05-288 standards ⁸
D030 ⁹	Wastes that are toxicity characteristic for 2,4-dinitrotoluene based on the toxicity characteristic leaching procedure in SW846 Method 1311.	2,4-Dinitrotoluene	121-14-2	0.32 and meet section 33-24-05-288 standards ⁸	140 and meet section 33-24-05-288 standards ⁸
D031 ⁹	Wastes that are toxicity characteristic for heptachlor based on the toxicity characteristic leaching procedure in SW846 Method 1311.	Heptachlor	76-44-8	0.0012 and meet section 33-24-05-288 standards ⁸	0.066 and meet section 33-24-05-288 standards ⁸
		Heptachlor epoxide	1024-57-3	0.016 and meet section 33-24-05-288 standards ⁸	0.066 and meet section 33-24-05-288 standards ⁸
D032 ⁹	Wastes that are toxicity characteristic for hexachloro- benzene based on the toxicity characteristic leaching procedure in SW846 Method 1311.	Hexachlorobenzene	118-74-1	0.055 and meet section 33-24-05-288 standards ⁸	10 and meet section 33-24-05-288 standards ⁸
D033 ⁹	Wastes that are toxicity characteristic for hexachlorobutadiene based on the toxicity characteristic leaching procedure in SW846 Method 1311.	Hexachlorobutadiene	87-68-3	0.055 and meet section 33-24-05-288 standards ⁸	5.6 and meet section 33-24-05-288 standards ⁸
D034 ⁹	Wastes that are toxicity characteristic for hexachloroethane based on the toxicity characteristic leaching procedure in SW846 Method 1311.	Hexachloroethane	67-72-1	0.055 and meet section 33-24-05-288 standards ⁸	30 and meet section 33-24-05-288 standards ⁸
D035 ⁹	Wastes that are toxicity characteristic for methyl ethyl ketone based on the toxicity characteristic leaching procedure in SW846 Method 1311.	Methyl ethyl ketone	78-93-3	0.28 and meet section 33-24-05-288 standards ⁸	36 and meet section 33-24-05-288 standards ⁸

TREATMENT STANDARDS FOR HAZARDOUS WASTES

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Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
D036 ⁹	Wastes that are toxicity characteristic for nitrobenzene based on the toxicity characteristic leaching procedure in SW846 Method 1311.	Nitrobenzene	98-95-3	0.068 and meet section 33-24-05-288 standards ⁸	14 and meet section 33-24-05-288 standards ⁸
D037 ⁹	Wastes that are toxicity characteristic for pentachlorophenol based on the toxicity characteristic leaching procedure in SW846 Method 1311.	Pentachlorophenol	87-86-5	0.089 and meet section 33-24-05-288 standards ⁸	7.4 and meet section 33-24-05-288 standards ⁸
D038 ⁹	Wastes that are toxicity characteristic for pyridine based on the toxicity characteristic leaching procedure in SW846 Method 1311.	Pyridine	110-86-1	0.014 and meet section 33-24-05-288 standards ⁸	16 and meet section 33-24-05-288 standards ⁸
D039 ⁹	Wastes that are toxicity characteristic for tetrachloroethylene based on the toxicity characteristic leaching procedure in SW846 Method 1311.	Tetrachloroethylene	127-18-4	0.056 and meet section 33-24-05-288 standards ⁸	6.0 and meet section 33-24-05-288 standards ⁸
D040 ⁹	Wastes that are toxicity characteristic for trichloroethylene based on the toxicity characteristic leaching procedure in SW846 Method 1311.	Trichloroethylene	79-01-6	0.054 and meet section 33-24-05-288 standards ⁸	6.0 and meet section 33-24-05-288 standards ⁸
D041 ⁹	Wastes that are toxicity characteristic for 2,4,5-trichlorophenol based on the toxicity characteristic leaching procedure in SW846 Method 1311.	2,4,5-Trichlorophenol	95-95-4	0.18 and meet section 33-24-05-288 standards ⁸	7.4 and meet section 33-24-05-288 standards ⁸
D042 ⁹	Wastes that are toxicity characteristic for 2,4,6-trichlorophenol based on the toxicity characteristic leaching procedure in SW846 Method 1311.	2,4,6-Trichlorophenol	88-06-2	0.035 and meet section 33-24-05-288 standards ⁸	7.4 and meet section 33-24-05-288 standards ⁸
D043 ⁹	Wastes that are toxicity characteristic for vinyl chloride based on the toxicity characteristic leaching procedure in SW846 Method 1311.	Vinyl chloride	75-01-4	0.27 and meet section 33-24-05-288 standards ⁸	6.0 and meet section 33-24-05-288 standards ⁸

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
F001, F002, F003, F004, & F005	F001, F002, F003, F004 and/or F005 solvent wastes that contain any combination of one or more of the following spent solvents: acetone, benzene, n-butyl alcohol, carbon disulfide, carbon tetrachloride, chlorinated fluorocarbons, chlorobenzene, o-cresol, m-cresol, p-cresol, cyclohexanone, o-dichlorobenzene, 2-ethoxyethanol, ethyl acetate, ethyl benzene, ethyl ether, isobutyl alcohol, methanol, methylene chloride, methyl ethyl ketone, methyl isobutyl ketone, nitrobenzene, 2-nitropropane, pyridine, tetrachloroethylene, toluene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,1,2-trichloro-1,2,2-trifluorethane, trichloroethylene, trichloromonofluoromethane, and/or xylenes [except as specifically noted in other subcategories]. See further details of these listings in section 33-24-02-16.	Acetone	67-64-1	0.28	160
		Benzene	71-42-2	0.14	10
		n-Butyl alcohol	71-36-3	5.6	2.6
		Carbon disulfide	75-15-0	3.8	NA
		Carbon tetrachloride	56-23-5	0.057	6.0
		Chlorobenzene	108-90-7	0.057	6.0
		o-Cresol	95-48-7	0.11	5.6
		m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
		p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
		Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)	1319-77-3		
		Cyclohexanone	108-94-1	0.36	NA
		o-Dichlorobenzene	95-50-1	0.088	6.0
		Ethyl acetate	141-78-6	0.34	33
		Ethyl benzene	100-41-4	0.057	10
		Ethyl ether	60-29-7	0.12	160
		Isobutyl alcohol	78-83-1	5.6	170
		Methanol	67-56-1	5.6	NA
		Methylene chloride	75-9-2	0.089	30
		Methyl ethyl ketone	78-93-3	0.28	36
		Methyl isobutyl ketone	108-10-1	0.14	33
		Nitrobenzene	98-95-3	0.068	14
		Pyridine	110-86-1	0.014	16
		Tetrachloroethylene	127-18-4	0.056	6.0
		Toluene	108-88-3	0.080	10
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		1,1,2-Trichloro- 1,2,2-trifluoroethane	76-13-1	0.057	30

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
333	F003 and/or F005 solvent wastes that contain any combination of one or more of the following three solvents as the only listed F001-5 solvents: carbon disulfide, cyclohexanone, and/or methanol (formerly subsection 3 of section 33-24-05-281).	Trichloroethylene	79-01-6	0.054	6.0
		Trichloromonofluoromethane	75-69-4	0.020	30
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Carbon disulfide	75-15-0	3.8	4.8 mg/l TCLP
		Cyclohexanone	108-94-1	0.36	0.75 mg/l TCLP
		Methanol	67-56-1	5.6	0.75 mg/l TCLP
		2-Nitropropane	79-46-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
		2-Ethoxyethanol	110-80-5	BIOGDG; or CMBST	CMBST
		Cadmium	7440-43-9	.069	0.11 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc, and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.	Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ , or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
F007	Spent cyanide plating bath solutions from electroplating operations.	Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Nickel	7440-02-0	3.98	11.0 mg/l TCLP
		Silver	7440-22-4	NA	0.14 mg/l TCLP
		Cadmium	7440-43-9	NA	0.11 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.	Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Nickel	7440-02-0	3.98	11.0 mg/l TCLP
		Silver	7440-22-4	NA	0.14 mg/l TCLP
		Cadmium	7440-31-9	NA	0.11 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.	Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Nickel	7440-02-0	3.98	11.0 mg/l TCLP
		Silver	7440-22-4	NA	0.14 mg/l TCLP
		Cadmium	7440-43-9	NA	0.11 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60mg/l TCLP

TREATMENT STANDARDS FOR HAZARDOUS WASTES

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Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ , or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.	Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Nickel	7440-02-0	3.98	11.0 mg/l TCLP
		Silver	7440-22-4	NA	0.14 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.	Cyanides (Amenable) ⁷	57-12-5	0.86	NA
		Cadmium	7440-43-9	NA	0.11 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
F012	Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.	Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Nickel	7440-02-0	3.98	11.0 mg/l TCLP
		Silver	7440-22-4	NA	0.14 mg/l TCLP
		Cadmium	7440-43-9	NA	0.11 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
Nickel	7440-02-0	3.98	11.0 mg/l TCLP		

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process.	Silver	7440-22-4	NA	0.14 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Cyanides (Total)	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
F020, F021, F022, F023, F026	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of: (1) tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives, excluding wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol (F020); (2) pentachlorophenol, or of intermediates used to produce its derivatives (for example, F021); (3) tetra-, penta-, or hexachloro-benzenes under alkaline conditions (for example, F022; and from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of: (1) tri- or tetrachlorophenols, excluding wastes from equipment used only for the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol (F023); (2) tetra-, penta-, or hexachlorobenzenes under alkaline conditions (for example, F026).	HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ , or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
337	F024 Process wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in section 33-24-02-16 or 33-24-02-17.)	PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
		Pentachlorophenol	87-86-5	0.089	7.4
		TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
		All F024 Wastes	NA	CMBST ¹¹	CMBST ¹¹
		2-Chloro-1,3-butadiene	126-99-8	0.057	0.28
		3-Chloropropylene	107-05-1	0.036	30
		1,1-Dichloroethane	75-34-3	0.059	6.0
		1,2-Dichloroethane	107-06-2	0.21	6.0

TREATMENT STANDARDS FOR HAZARDOUS WASTES

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Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
F025	Condensed light ends from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. F025 - Light ends subcategory.	1,2-Dichloropropane	78-87-5	0.85	18
		cis-1,3-Dichloropropylene	10061-01-5	0.036	18
		trans-1,3-Dichloropropylene	10061-02-6	0.036	18
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		Hexachloroethane	67-72-1	0.055	30
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Nickel	7440-02-0	3.98	11.0 mg/l TCLP
		Carbon tetrachloride	56-23-5	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		1,2-Dichloroethane	107-06-2	0.21	6.0
		1,1-Dichloroethylene	75-35-4	0.025	6.0
		Methylene chloride	75-9-2	0.089	30
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		Trichloroethylene	79-01-6	0.054	6.0
		Vinyl chloride	75-01-4	0.27	6.0

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ , or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
339	Spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. F025 - Spent filters/aids and desiccants subcategory.	Carbon tetrachloride	56-23-5	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		Hexachlorobenzene	118-74-1	0.055	10
		Hexachlorobutadiene	87-68-3	0.055	5.6
		Hexachloroethane	67-72-1	0.055	30
		Methylene chloride	75-9-2	0.089	30
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		Trichloroethylene	79-01-6	0.054	6.0
		Vinyl chloride	75-01-4	0.27	6.0
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols (this listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component).	HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001

TREATMENT STANDARDS FOR HAZARDOUS WASTES

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Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with hazardous wastes numbers F020, F021, F023, F026, and F027.	PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
		Pentachlorophenol	87-86-5	0.089	7.4
		TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
		HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
		PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
		Pentachlorophenol	87-86-5	0.089	7.4
		TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		2,3,4,6-Tetrachlorophenol	58-90-2	0.30	7.4

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
F032	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with section 33-24-02-19 or potentially cross-contaminated wastes that are otherwise regulated as hazardous wastes (for example, F034 or F035), and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.	Acenaphthene	83-32-9	0.059	3.4
		Anthracene	120-12-7	0.059	3.4
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		2-4-Dimethyl phenol	105-67-9	0.036	14

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
342		Fluorene	86-73-7	0.059	3.4
		Hexachlorodibenzo-p-dioxins	NA	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹
		Hexachlorodibenzofurans	NA	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹
		Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4
		Naphthalene	91-20-3	0.059	5.6
		Pentachlorodibenzo-p-dioxins	NA	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹
		Pentachlorodibenzofurans	NA	0.000035 or CMBST ¹¹	0.001 or CMBST ¹¹
		Pentachlorophenol	87-86-5	0.089	7.4
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Tetrachlorodibenzo-p-dioxins	NA	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹
		Tetrachlorodibenzofurans	NA	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹
		2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
		Chromium (total)	7440-47-3	2.77	0.60 mg/l TCLP

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
F034	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.	Acenaphthene	83-32-9	0.059	3.4
		Anthracene	120-12-7	0.059	3.4
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Fluorene	86-73-7	0.059	3.4
		Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Pyrene	129-00-0	0.067	8.2
		Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
		Chromium (total)	7440-47-3	2.77	0.60 mg/l TCLP

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
F035	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
		Chromium (total)	7440-47-3	2.77	0.60 mg/l TCLP

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
F037	Petroleum refinery primary oil/water/solids separation sludge-any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in: oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from noncontact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in subdivision b of subsection 2 of section 33-24-02-16 (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing.	Acenaphthene	83-32-9	0.059	NA
		Anthracene	120-12-7	0.059	3.4
		Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		Chrysene	218-01-9	0.059	3.4

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
346		Di-n-butyl phthalate	84-74-2	0.057	28
		Ethylbenzene	100-41-4	0.057	10
		Fluorene	86-73-7	0.059	NA
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.080	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	11.0 mg/l TCLP

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ , or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
F038	Petroleum refinery secondary (emulsified) oil/water/solids separation sludge and/or float generated from the physical and/or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air flotation (IAF) units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from noncontact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in aggressive biological treatment units as defined in subdivision b of subsection 2 of section 33-24-02-16 (including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological units) and F037, K048, and K051 are not included in this listing.	Benzene	71-43-2	0.14	10
		Benzo(a)pyrene	50-32-8	0.061	3.4
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		Chrysene	218-01-9	0.059	3.4
		Di-n-butyl phthalate	84-74-2	0.057	28
		Ethylbenzene	100-41-4	0.057	10
		Fluorene	86-73-7	0.059	NA
		Naphthalene	91-20-3	0.059	5.6

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
348 F039	Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under sections 33-24-05-280 through 33-24-05-289 (leachate resulting from the disposal of one or more of the following hazardous wastes and no other hazardous wastes retains its hazardous waste number(s): F020, F021, F022, F026, F027, and/or F028).	Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.080	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	11.0 mg/l TCLP
		Acenaphthylene	208-96-8	0.059	3.4
		Acenaphthene	83-32-9	0.059	3.4
		Acetone	67-64-1	0.28	160
		Acetonitrile	75-05-8	5.6	NA
		Acetophenone	96-86-2	0.010	9.7
		2-Acetylaminofluorene	53-96-3	0.059	140
		Acrolein	107-02-8	0.29	NA

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
		Acrylonitrile	107-13-1	0.24	84
		Aldrin	309-00-2	0.021	0.066
		4-Aminobiphenyl	92-67-1	0.13	NA
		Aniline	62-53-3	0.81	14
		Anthracene	120-12-7	0.059	3.4
		Aramite	140-57-8	0.36	NA
		alpha-BHC	319-84-6	0.00014	0.066
		beta-BHC	319-85-7	0.00014	0.066
		delta-BHC	319-86-8	0.023	0.0.066
		gamma-BHC	58-89-9	0.0017	0.066
		Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Bromodichloromethane	75-27-4	0.35	15
		Methyl bromide (Bromomethane)	74-83-9	0.11	15
		4-Bromophenyl phenyl ether	101-55-3	0.055	15
		n-Butyl alcohol	71-36-3	5.6	2.6

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
350		Butyl benzyl phthalate	85-68-7	0.017	28
		2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	88-85-7	0.066	2.5
		Carbondisulfide	75-15-0	3.8	NA
		Carbon tetrachloride	56-23-5	0.057	6.0
		Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
		p-Chloroaniline	106-47-8	0.46	16
		Chlorobenzene	108-90-7	0.057	6.0
		Chlorobenzilate	510-15-6	0.10	NA
		2-Chloro-1,3-butadiene	126-99-8	0.057	NA
		Chlorodibromomethane	124-48-1	0.057	15
		Chloroethane	75-00-3	0.27	6.0
		bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2
		bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
		Chloroform	67-66-3	0.046	6.0
		bis(2-Chloroisopropyl)ether	39638-32-9	0.055	7.2
		p-Chloro-m-cresol	59-50-7	0.018	14
		Chloromethane (Methyl chlorida)	74-87-3	0.19	30
		2-Chloronaphthalene	91-58-7	0.055	5.6
		2-Chlorophenol	95-57-8	0.044	5.7
		3-Chloropropylene	107-05-1	0.036	30
		Chrysene	218-01-9	0.059	3.4

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ , or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
		o-Cresol	95-48-7	0.11	5.6
		m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
		p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
		Cyclohexanone	108-94-1	0.36	NA
		1,2-Dibromo-3-chloropropane	96-12-8	0.11	15
		Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
		Dibromomethane	74-95-3	0.11	15
		2,4-D (2,4-Dichlorophenoxyacetic acid)	94-75-7	0.72	10
		o,p'-DDD	53-19-0	0.023	0.087
		p,p'-DDD	72-54-8	0.023	0.087
		o,p'-DDE	3424-82-6	0.031	0.087
		p,p'-DDE	72-55-9	0.031	0.087
		o,p'-DDT	789-02-6	0.0039	0.087
		p,p'-DDT	50-29-3	0.0039	0.087
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Dibenz(a,e)pyrene	192-65-4	0.061	NA
		m-Dichlorobenzene	541-73-1	0.036	6.0
		o-Dichlorobenzene	95-50-1	0.088	6.0
		p-Dichlorobenzene	106-46-7	0.090	6.0
		Dichlorodifluoromethane	75-71-8	0.23	7.2

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
		1,1-Dichloroethane	75-34-3	0.059	6.0
		1,2-Dichloroethane	107-06-2	0.21	6.0
		1,1-Dichloroethylene	75-35-4	0.025	6.0
		trans-1,2-Dichloroethylene	156-60-5	0.054	30
		2,4-Dichlorophenol	120-83-2	0.044	14
		2,6-Dichlorophenol	87-65-0	0.044	14
		1,2-Dichloropropane	78-87-5	0.85	18
		cis-1,3-Dichloropropylene	10061-01-5	0.036	18
		trans-1,3-Dichloropropylene	10061-02-6	0.036	18
		Dieldrin	60-57-1	0.017	0.13
		Diethyl phthalate	84-66-2	0.20	28
		2-4-Dimethyl phenol	105-67-9	0.036	14
		Dimethyl phthalate	131-11-3	0.047	28
		Di-n-butyl phthalate	87-74-2	0.057	28
		1,4-Dinitrobenzene	100-25-4	0.32	2.3
		4,6-Dinitro-o-cresol	534-52-1	0.28	160
		2,4-Dinitrophenol	51-28-5	0.12	160
		2,4-Dinitrotoluene	121-14-2	0.32	140
		2,6-Dinitrotoluene	606-20-2	0.55	28
		Di-n-octyl phthalate	117-84-0	0.017	28
		Di-n-propyl nitrosamine	621-64-7	0.40	14
		1,4-Dioxane	123-91-1	12.0	170

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
		Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	13
		Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	13
		1,2-Diphenylhydrazine	122-66-7	0.087	NA
		Disulfoton	298-04-4	0.017	6.2
		Endosulfan I	939-98-8	0.023	0.066
		Endosulfan II	33213-6-5	0.029	0.13
		Endosulfan sulfate	131-07-8	0.029	0.13
		Endrin	72-20-8	0.0028	0.13
		Endrin aldehyde	7421-93-4	0.025	0.13
		Ethyl acetate	141-78-6	0.34	33
		Ethyl cyanide (Propanenitrile)	107-12-0	0.24	360
		Ethyl benzene	100-41-4	0.057	10
		Ethyl ether	60-29-7	0.12	160
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		Ethyl methacrylate	97-63-2	0.14	160
		Ethylene oxide	75-21-8	0.12	NA
		Famphur	52-85-7	0.017	15
		Fluoranthene	206-44-0	0.068	3.4
		Fluorene	86-73-7	0.059	3.4
		Heptachlor	76-44-8	0.0012	0.066

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
354		Heptachlor epoxide	1024-57-3	0.016	0.066
		1,2,3,4,6,7,8- Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562-39-4	0.000035	0.0025
		1,2,3,4,7,8,9- Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673-89-7	0.000035	0.0025
		1,2,3,4,6,7,8- Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	35822-46-9	0.000035	0.0025
		Hexachlorobenzene	118-74-1	0.055	10
		Hexachlorobutadiene	87-68-3	0.055	5.6
		Hexachlorocyclopentadiene	77-47-4	0.057	2.4
		HxCDDs (All Hexa-chlorodibenzo-p-dioxins)	NA	0.000063	0.001
		HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
		Hexachloroethane	67-72-1	0.055	30
		Hexachloropropylene	1888-71-7	0.035	30
		Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4
		Iodomethane	74-88-4	0.19	65
		Isobutyl alcohol	78-83-1	5.6	170
		Isodrin	465-73-6	0.021	0.066
		Isosafrole	120-58-1	0.081	2.6
		Kepone	143-50-8	0.0011	0.13
		Methacrylonitrile	126-98-7	0.24	84
		Methanol	67-56-1	5.6	NA

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
		Methapyrilene	91-80-5	0.081	1.5
		Methoxychlor	72-43-5	0.25	0.18
		3-Methylcholanthrene	56-49-5	0.0055	15
		4,4-Methylene bis(2- chloroaniline)	101-14-4	0.50	30
		Methylene chloride	75-09-2	0.089	30
		Methyl ethyl ketone	78-93-3	0.28	36
		Methyl isobutyl ketone	108-10-1	0.14	33
		Methyl methacrylate	80-62-6	0.14	160
		Methyl methansulfonate	66-27-3	0.018	NA
		Methyl parathion	298-00-0	0.014	4.6
		Naphthalene	91-20-3	0.059	5.6
		2-Naphthylamine	91-59-8	0.52	NA
		p-Nitroaniline	100-01-6	0.028	28
		Nitrobenzene	98-95-3	0.068	14
		5-Nitro-o-toluidine	99-55-8	0.32	28
		p-Nitrophenol	100-02-7	0.12	29
		N-Nitrosodiethylamine	55-18-5	0.40	28
		N-Nitrosodimethylamine	62-75-9	0.40	NA
		N-Nitroso-di-n-butylamine	924-16-3	0.40	17
		N-Nitrosomethylethylamine	10595-95-6	0.40	2.3
		N-Nitrosomorpholine	59-89-2	0.40	2.3
		N-Nitrosopiperidine	100-75-4	0.013	35

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
356		N-Nitrosopyrrolidine	930-55-2	0.013	35
		1,2,3,4,6,7,8,9- Octachlorodibenzofuran (OCDF)	39001-02-0	0.000063	0.005
		1,2,3,4,6,7,8,9- Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	0.000063	0.0025
		Parathion	56-38-2	0.014	4.6
		Total PCBs (sum of all PCB isomers, or all Aroclors)	1336-36-3	0.10	10
		Pentachlorobenzene	608-93-5	0.055	10
		PeCDDs (All Penta-chlorodibenzo-p-dioxins)	NA	0.000063	0.001
		PeCDFs (All Pentachlorodi-benzofurans)	NA	0.000035	0.001
		Pentachloronitrobenzene	82-68-8	0.055	4.8
		Pentachlorophenol	87-86-5	0.089	7.4
		Phenacetin	62-44-2	0.081	16
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Phorate	298-02-2	0.021	4.6
		Phthalic anhydride	85-44-9	0.055	NA
		Pronamide	23950-58-5	0.093	1.5
		Pyrene	129-00-0	0.067	8.2
		Pyridine	110-86-1	0.014	16

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ , or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
		Safrole	94-59-7	0.081	22
		Silvex (2,4,5-TP)	93-72-1	0.72	7.9
		2,4,5-T	93-76-5	0.72	7.9
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		TCDDs (All Tetra-chlorodibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (All Tetra- chlorodibenzofurans)	NA	0.000063	0.001
		1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
		1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
		Tetrachloroethylene	127-18-4	0.056	6.0
		2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
		Toluene	108-88-3	0.080	10
		Toxaphene	8001-35-2	0.0095	2.6
		Bromoform (Tribromomethane)	75-25-2	0.63	15
		1,2,4-Trichlorobenzene	120-82-1	0.055	19
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		Trichloroethylene	79-01-6	0.054	6.0
		Trichloromonofluoromethane	75-69-4	0.020	30
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		1,2,3-Trichloropropane	96-18-4	0.85	30

TREATMENT STANDARDS FOR HAZARDOUS WASTES

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		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
358		1,1,2-Trichloro-1,2,2- trifluoroethane	76-13-1	0.057	30
		tris(2,3-Dibromopropyl) phosphate	126-72-7	0.11	NA
		Vinyl chloride	75-01-4	0.27	6.0
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Antimony	7440-36-0	1.9	1.15 mg/l TCLP
		Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
		Barium	7440-39-3	1.2	21 mg/l TCLP
		Beryllium	7440-41-7	0.82	NA
		Cadmium	7440-43-9	0.69	0.11 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable)	57-12-5	0.86	NA
		Fluoride	16964-48-8	35	NA
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Mercury	7439-97-6	0.15	0.025 mg/l TCLP
		Nickel	7440-02-0	3.98	11.0 mg/l TCLP
		Selenium	7782-49-2	0.82	5.7 mg/l TCLP
		Silver	7440-22-4	0.43	0.14 mg/l TCLP
		Sulfide	8496-25-8	14	NA
		Thallium	7440-28-0	1.4	NA
		Vanadium	7440-62-2	4.3	NA

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ , or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.	Naphthalene	91-20-3	0.059	5.6
		Pentachlorophenol	87-86-5	0.089	7.4
		Phenanthrene	85-01-8	0.059	5.6
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.080	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.	Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
K003	Wastewater treatment sludge from the production of molybdate orange pigments.	Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
K004	Wastewater treatment sludge from the production of zinc yellow pigments.	Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
K005	Wastewater treatment sludge from the production of chrome green pigments.	Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590

TREATMENT STANDARDS FOR HAZARDOUS WASTES

		Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Common Name	CAS ² No.	Concentration mg/l ³ , ⁴ or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous).	Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
	Wastewater treatment sludge from the production of chrome oxide green pigments (hydrated).	Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	NA
K007	Wastewater treatment sludge from the production of iron blue pigments.	Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590
K008	Oven residue from the production of chrome oxide green pigments.	Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
K009	Distillation bottoms from the production of acetaldehyde from ethylene.	Chloroform	67-66-3	0.046	6.0
K010	Distillation side cuts from the production of acetaldehyde from ethylene.	Chloroform	67-66-3	0.046	6.0
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile.	Acetonitrile	75-05-8	5.6	38
		Acrylonitrile	107-13-1	0.24	84
		Acrylamide	79-06-1	19	23
		Benzene	71-43-2	0.14	10
		Cyanide (Total)	47-12-5	1.2	590

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ , or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile.	Acetonitrile	75-05-8	5.6	38
		Acrylonitrile	107-13-1	0.24	84
		Acrylamide	79-06-1	19	23
		Benzene	71-43-2	0.14	10
		Cyanide (Total)	57-12-5	1.2	590
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile.	Acetonitrile	75-05-8	5.6	38
		Acrylonitrile	107-13-1	0.24	84
		Acrylamide	79-06-1	19	23
		Benzene	71-43-2	0.14	10
		Cyanide (Total)	57-12-5	1.2	590
K015	Still bottoms from the distillation of benzyl chloride.	Anthracene	120-12-7	0.059	3.4
		Benzal chloride	98-87-3	0.055	6.0
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluroanthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Phenanthrene	85-01-8	0.059	5.6
		Toluene	108-88-3	0.080	10
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Nickel	7440-02-0	3.98	11.0 mg/l TCLP

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
362	K016 Heavy ends or distillation residues from the production of carbon tetrachloride.	Hexachlorobenzene	118-74-1	0.055	10
		Hexachlorobutadiene	87-68-3	0.055	5.6
		Hexachlorocyclopentadiene	77-47-4	0.057	2.4
		Hexachloroethane	67-72-1	0.055	30
		Tetrachloroethylene	127-18-4	0.056	6.0
	K017 Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.	bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
		1,2-Dichloropropane	78-87-5	0.85	18
		1,2,3-Trichloropropane	96-18-4	0.85	30
	K018 Heavy ends from the fractionation column in ethyl chloride production.	Chloroethane	75-00-3	0.27	6.0
		Chloromethane	74-87-3	0.19	NA
		1,1-Dichloroethane	75-34-3	0.059	6.0
		1,2-Dichloroethane	107-06-2	0.21	6.0
		Hexachlorobenzene	118-74-1	0.055	10
		Hexachlorobutadiene	87-68-3	0.055	5.6
		Hexachloroethane	67-72-1	0.055	30
		Pentachloroethane	76-01-7	NA	6.0
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
	K019 Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.	bis(2-Chloroethyl)ether	111-44-4	0.033	6.0

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ , or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
363		Chlorobenzene	108-90-7	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		p-Dichlorobenzene	106-46-7	0.090	NA
		1,2-Dichloroethane	107-06-2	0.21	6.0
		Fluorene	86-73-7	0.059	NA
		Hexachloroethane	67-72-1	0.055	30
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	NA
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,2,4-Trichlorobenzene	120-82-1	0.055	19
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
		1,2-Dichloroethane	107-06-2	0.21	6.0
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.	1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
		Tetrachloroethylene	127-18-4	0.056	6.0
K021	Aqueous spent antimony catalyst waste from fluoromethanes production.	Carbon tetrachloride	56-23-5	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		Antimony	7440-36-0	1.9	1.15 mg/l TCLP
K022	Distillation bottom tars from the production of phenol/acetone from cumene.	Toluene	108-88-3	0.080	10

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters	
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code	
364	K023	Acetophenone	96-86-2	0.010	9.7	
		Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	13	
		Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	13	
		Phenol	108-95-2	0.039	6.2	
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP	
		Nickel	7440-02-0	3.98	11.0 mg/l TCLP	
	K024	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28	
		Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28	
		Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28	
	K025	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28	
		Distillation bottoms from the production of nitrobenzene by the nitration of benzene.	NA	NA	LLEXT fb SSTRP fb CARBN; or CMBST	CMBST
	K026	Stripping still tails from the production of methyl ethyl pyridines.	NA	NA	CMBST	CMBST
	K027	Centrifuge and distillation residues from toluene diisocyanate production.	NA	NA	CARBN; or CMBST	CMBST
	K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.	1,1-Dichloroethane	75-34-3	0.059	6.0
			trans-1,2-Dichloroethylene	156-60-5	0.054	30
			Hexachlorobutadiene	87-68-3	0.055	5.6

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
365		Hexachloroethane	67-72-1	0.055	30
		Pentachloroethane	76-01-7	NA	6.0
		1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
		1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		Cadmium	7440-43-9	0.69	NA
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Nickel	7440-02-0	3.98	11.0 mg/l TCLP
		Chloroform	67-66-3	0.046	6.0
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane.	1,2-Dichloroethane	107-06-2	0.21	6.0
		1,1-Dichloroethylene	75-35-4	0.025	6.0
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
		Vinyl chloride	75-01-4	0.27	6.0
K030	Column bodies or heavy ends from the combined production of trichloroethylene and perchloroethylene.	o-Dichlorobenzene	95-50-1	0.088	NA
		p-Dichlorobenzene	106-46-7	0.090	NA
		Hexachlorobutadiene	87-68-3	0.055	5.6
		Hexachloroethane	67-72-1	0.055	30

TREATMENT STANDARDS FOR HAZARDOUS WASTES

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Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
K031	Byproduct salts generated in the production of MSMA and cacodylic acid.	Hexachloropropylene	1888-71-7	NA	30
		Pentachlorobenzene	608-93-5	NA	10
		Pentachloroethane	76-01-7	NA	6.0
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,2,4-Trichlorobenzene	120-82-1	0.055	19
	Wastewater treatment sludge from the production of chlordane.	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
		Hexachlorocyclopentadiene	77-47-4	0.057	2.4
		Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
		Heptachlor	76-44-8	0.0012	0.066
		Heptachlor epoxide	1024-57-3	0.016	0.066
	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.	Hexachlorocyclopentadiene	77-47-4	0.057	2.4
	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.	Hexachlorocyclopentadiene	77-47-4	0.057	2.4
	Wastewater treatment sludges generated in the production of creosote.	Acenaphthene	83-32-9	NA	3.4
		Anthracene	120-12-7	NA	3.4
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Chrysene	218-01-9	0.059	3.4

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ , or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
367		o-Cresol	95-48-7	0.11	5.6
		m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
		p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
		Dibenz(a,h)anthracene	53-70-3	NA	8.2
		Fluoranthene	206-44-0	0.068	3.4
		Fluorene	86-73-7	NA	3.4
		Indeno(1,2,3-cd)pyrene	193-39-5	NA	3.4
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton.	Disulfoton	298-04-4	0.017	6.2
K037	Wastewater treatment sludges from the production of disulfoton.	Disulfoton	298-04-4	0.017	6.2
K038	Wastewater from the washing and stripping of phorate production.	Toluene	108-88-3	0.080	10
		Phorate	298-02-2	0.021	4.6
K039	Filter cake from the filtration of diethylphosphorodithioc acid in the production of phorate.	NA	NA	CARBN; or CMBST	CMBST
K040	Wastewater treatment sludge from the production of phorate.	Phorate	298-02-2	0.021	4.6

TREATMENT STANDARDS FOR HAZARDOUS WASTES

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Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters Concentration mg/l ³ ; or Technology Code ⁴	Nonwastewaters Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
		Common Name	CAS ² No.		
K041	Wastewater treatment sludge from the production of toxaphene.	Toxaphene	8001-35-2	0.0095	2.6
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.	o-Dichlorobenzene	95-50-1	0.088	6.0
		p-Dichlorobenzene	106-46-7	0.090	6.0
		Pentachlorobenzene	608-93-5	0.055	10
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		1,2,4-Trichlorobenzene	120-82-1	0.055	19
K043	2,6-Dichlorophenol waste from the production of 2,4-D.	2,4-Dichlorophenol	120-83-2	0.044	14
		2,6-Dichlorophenol	187-65-0	0.044	14
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
		Pentachlorophenol	87-86-5	0.089	7.4
		Tetrachloroethylene	127-18-4	0.056	6.0
		HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		HxCDFs (All hexachlorodibenzofurans)	NA	0.000063	0.001
		PeCDDs (All Penta-chlorodibenzo-p-dioxins)	NA	0.000063	0.001
		PeCDFs (All Penta-chlorodibenzofurans)	NA	0.000035	0.001

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Regulated Hazardous Constituent			Wastewaters	Nonwastewaters	
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Common Name	CAS ² No.	Concentration mg/l ³ , or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
K044	Wastewater treatment sludges from the manufacturing and processing of explosives.	TCDDs (All tetra-chlorodibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (All Tetra- chlorodibenzofurans)	NA	0.000063	0.001
		NA	NA	DEACT	DEACT
K045	Spent carbon from the treatment of wastewater containing explosives.	NA	NA	DEACT	DEACT
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.	Lead	7439-92-1	0.69	0.75 mg/l TCLP
K047	Pink/red water from TNT operations.	NA	NA	DEACT	DEACT
K048	Dissolved air flotation (DAF) float from the petroleum refining industry.	Benzene	71-43-2	0.14	10
		Benzo(a)pyrene	50-32-8	0.061	3.4
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		Chrysene	218-01-9	0.059	3.4
		Di-n-butyl phthalate	84-74-2	0.057	28
		Ethylbenzene	100-41-4	0.057	10
		Fluorene	86-73-7	0.059	NA
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-33	0.080	10

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
370	K049 Slop oil emulsion solids from the petroleum refining industry.	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	11.0 mg/l TCLP
		Anthracene	120-12-7	0.059	3.4
		Benzene	71-43-2	0.14	10
		Benzo(a)pyrene	50-32-8	0.061	3.4
		bis(2)-Ethylhexyl phthalate	117-81-7	0.28	28
		Carbon disulfide	75-15-0	3.8	NA
		Chrysene	2218-01-9	0.059	3.4
		2,4-Dimethylphenol	105-67-9	0.036	NA
		Ethylbenzene	100-41-4	0.057	10
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.080	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Cyanides (Total) ⁷	57-12-5	1.2	590

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry.	Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	11.0 mg/l TCLP
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Phenol	108-95-2	0.039	6.2
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
K051	API separator sludge from the petroleum refining industry.	Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	11.0 mg/l TCLP
		Acenaphthene	83-32-9	0.059	NA
		Anthracene	120-12-7	0.059	3.4
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzene	71-43-2	0.14	10
		Benzo(a)pyrene	50-32-8	0.061	3.4
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		Chrysene	2218-01-9	0.059	3.4
		Di-n-butyl phthalate	105-67-9	0.057	28
		Ethylbenzene	100-41-4	0.057	10
		Fluorene	86-73-7	0.059	NA
		Naphthalene	91-20-3	0.059	5.6

TREATMENT STANDARDS FOR HAZARDOUS WASTES

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Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
K052	Tank bottoms (leaded) from the petroleum refining industry.	Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.08	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	11.0 mg/l TCLP
		Benzene	71-43-2	0.14	10
		Benzo(a)pyrene	50-32-8	0.061	3.4
		o-Cresol	95-48-7	0.11	5.6
		m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
		p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
		2,4-Dimethylphenol	105-67-9	0.036	NA
		Ethylbenzene	100-41-4	0.057	10
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ , or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
K060	Ammonia still lime sludge from coking operations.	Toluene	108-88-3	0.08	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	11.0 mg/l TCLP
		Benzene	71-43-2	0.14	10
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Naphthalene	91-20-3	0.059	5.6
		Phenol	108-95-2	0.039	6.2
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.	Cyanides (Total) ⁷	57-12-5	1.2	590
		Antimony	7440-36-0	NA	1.15 mg/l TCLP
		Arsenic	7440-38-2	NA	5.0 mg/l TCLP
		Barium	7440-39-3	NA	21 mg/l TCLP
		Beryllium	7440-41-7	NA	1.22 mg/l TCLP
		Cadmium	7440-43-9	0.69	0.11 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Mercury	7439-97-6	NA	0.025 mg/l TCLP

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
374	K062	Nickel	7440-02-0	3.98	11.0 mg/l TCLP
		Selenium	7782-49-2	NA	5.7 mg/l TCLP
		Silver	7440-22-4	NA	0.14 mg/l TCLP
		Thallium	7440-28-0	NA	0.20 mg/l TCLP
		Zinc	7440-66-6	NA	4.3 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
	K069	Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Nickel	7440-02-0	3.98	NA
		Cadmium	7440-43-9	0.69	0.11 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
K071	Emission control dust/sludge from secondary lead smelting - calcium sulfate (low lead) subcategory.	NA	NA	NA	RLEAD
	K071 (Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.) Nonwastewaters that are residues from RMERC.	Mercury	7439-97-6	NA	0.20 mg/l TCLP
	K071 (Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.) Nonwastewaters that are not residues from RMERC.	Mercury	7439-97-6	NA	0.025 mg/l TCLP

TREATMENT STANDARDS FOR HAZARDOUS WASTES

375

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters Concentration mg/l ³ , or Technology Code ⁴	Nonwastewaters Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
		Common Name	CAS ² No.		
K073	All K071 wastewaters. Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.	Mercury	7439-97-6	0.15	NA
		Carbon tetrachloride	56-23-5	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		Hexachloroethane	67-72-1	0.055	30
		Tetrachloroethylene	127-18-4	0.056	6.0
	K083 Distillation bottoms from aniline production.	1,1,1-Trichloroethane	71-55-6	0.054	6.0
		Aniline	62-53-3	0.81	14
		Benzene	71-43-2	0.14	10
		Cyclohexanone	108-94-1	0.36	NA
		Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	13
		Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	13
		Nitrobenzene	98-95-3	0.068	14
		Phenol	108-95-2	0.039	6.2
		Nickel	7440-02-0	3.98	11.0 mg/l TCLP
		Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.				
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes.	Benzene	71-43-2	0.14	10

TREATMENT STANDARDS FOR HAZARDOUS WASTES

376

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
K086	Solvent wastes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.	Chlorobenzene	108-90-7	0.057	6.0
		m-Dichlorobenzene	541-73-1	0.036	6.0
		o-Dichlorobenzene	95-50-1	0.088	6.0
		p-Dichlorobenzene	106-46-7	0.090	6.0
		Hexachlorobenzene	118-74-1	0.055	10
		Total PCBs (sum of all PCB isomers, or all Aroclors)	1336-36-3	0.10	10
		Pentachlorobenzene	608-93-5	0.055	10
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		1,2,4-Trichlorobenzene	120-82-1	0.055	19
		Acetone	67-64-1	0.28	160
		Acetophenone	96-86-2	0.010	9.7
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		n-Butyl alcohol	71-36-3	5.6	2.6
		Butylbenzyl phthalate	85-68-7	0.017	28
		Cyclohexanone	108-94-1	0.36	NA
		o-Dichlorobenzene	95-50-1	0.088	6.0
		Diethyl phthalate	84-66-2	0.20	28
		Dimethyl phthalate	131-11-3	0.047	28

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ , or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
377		Di-n-butyl phthalate	84-74-2	0.057	28
		Di-n-octyl phthalate	117-84-0	0.017	28
		Ethyl acetate	141-78-6	0.34	33
		Ethylbenzene	100-41-4	0.057	10
		Methanol	67-56-1	5.6	NA
		Methyl ethyl ketone	78-93-3	0.28	36
		Methyl isobutyl ketone	108-10-1	0.14	33
		Methylene chloride	75-09-2	0.089	30
		Naphthalene	91-20-3	0.059	5.6
		Nitrobenzene	98-95-3	0.068	14
		Toluene	108-88-3	0.080	10
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
		Trichloroethylene	79-01-6	0.054	6.0
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Acenaphthylene	208-96-8	0.059	3.4
		Benzene	71-43-2	0.14	10
		Chrysene	218-01-9	0.059	3.4
K087	Decanter tank tar sludge from coking operations.				

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters	
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code	
378	K088	Spent potliners from primary aluminum reduction.	Fluoranthene	206-44-0	0.068	3.4
			Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
			Naphthalene	91-20-3	0.059	5.6
			Phenanthrene	85-01-8	0.059	5.6
			Toluene	108-88-3	0.080	10
			Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
			Lead	7439-92-1	0.69	0.75 mg/l TCLP
			Acenaphthene	83-32-9	0.059	3.4
			Anthracene	120-12-7	0.059	3.4
			Benz(a)anthracene	56-55-3	0.059	3.4
			Benzo(a)pyrene	50-32-8	0.061	3.4
			Benzo(b)fluoranthene	205-99-2	0.11	6.8
			Benzo(k)fluoranthene	207-08-09	0.11	6.8
			Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
			Chrysene	218-01-9	0.059	3.4
			Dibenz(a,h)anthracene	53-70-3	0.055	8.2
			Fluoranthene	206-44-0	0.068	3.4
			Indeno(1,2,3-c,d)pyrene	193-39-5	0.0055	3.4
			Phenanthrene	85-01-8	0.059	5.6
			Pyrene	129-00-0	0.067	8.2

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ , or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
379		Antimony	7440-36-0	1.9	1.15 mg/l TCLP
		Arsenic	7440-38-2	1.4	26.1
		Barium	7440-39-3	1.2	21 mg/l TCLP
		Beryllium	7440-41-7	0.82	1.22 mg/l TCLP
		Cadmium	7440-43-9	0.69	0.11 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Mercury	7439-97-6	0.15	0.025 mg/l TCLP
		Nickel	7440-02-0	3.98	11 mg/l TCLP
		Selenium	7782-49-2	0.82	5.7 mg/l TCLP
		Silver	7440-22-4	0.43	0.14 mg/l TCLP
		Cyanide (Total) ⁷	57-12-5	1.2	590
		Cyanide (Amenable) ⁷	57-12-5	0.86	30
		Fluoride	16984-48-8	35	NA
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene.	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28
		Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene.	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28
		Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28
K095	Distillation bottoms from the production of 1,1,1-trichloroethane.	Hexachloroethane	67-72-1	0.055	30

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
380	K096	Pentachloroethane	76-01-7	0.055	6.0
		1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
		1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		Trichloroethylene	79-01-6	0.054	6.0
		m-Dichlorobenzene	541-73-1	0.036	6.0
		Pentachloroethane	76-01-7	0.055	6.0
		1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
		1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,2,4-Trichlorobenzene	120-82-1	0.055	19
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		Trichloroethylene	79-01-6	0.054	6.0
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.	Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
K098	Untreated process wastewater from the production of toxaphene.	Heptachlor	76-44-8	0.0012	0.066
		Heptachlor epoxide	1024-57-3	0.016	0.066
		Hexachlorocyclopentadiene	77-47-4	0.057	2.4
		Toxaphene	8001-35-2	0.0095	2.6

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ , or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
K099	Untreated wastewater from the production of 2,4-D.	2,4-Dichlorophenoxyacetic acid	94-75-7	0.72	10
		HxCDDs (All Hexa-chlorodibenzo-p-dioxins)	NA	0.000063	0.001
		HxCDFs (All hexa- chlorodibenzofurans)	NA	0.000063	0.001
		PeCDDs (All penta-chlorodibenzo-p-dioxins)	NA	0.000063	0.001
		PeCDFs (all Pentachlorodi-benzofurans)	NA	0.000035	0.001
		TCDDs (All Tetrachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (All Tetrachloro- dibenzofurans)	NA	0.000063	0.001
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.	Cadmium	7440-43-9	0.069	0.11 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	o-Nitroaniline	88-74-4	0.27	14
		Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
		Cadmium	7440-43-9	0.69	NA
		Lead	7439-92-1	0.69	NA
		Mercury	7439-97-6	0.15	NA

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ , or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	o-Nitrophenol	88-75-5	0.028	13
		Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
		Cadmium	7440-43-9	0.69	NA
		Lead	7439-92-1	0.69	NA
		Mercury	7439-97-6	0.15	NA
K103	Process residues from aniline extraction from the production of aniline.	Aniline	62-53-3	0.81	14
		Benzene	71-43-2	0.14	10
		2,4-Dinitrophenol	51-28-5	0.12	160
		Nitrobenzene	98-95-3	0.068	14
		Phenol	108-95-2	0.039	6.2
K104	Combined wastewater streams generated from nitrobenzene/aniline production.	Aniline	62-53-3	0.81	14
		Benzene	71-43-2	0.14	10
		2,4-Dinitrophenol	51-28-5	0.12	160
		Nitrobenzene	98-95-3	0.068	14
		Phenol	108-95-2	0.039	6.2
		Cyanides (Total) ⁷	57-12-5	1.2	590
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.	Benzene	71-43-2	0.14	10

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
383	K106 (Wastewater treatment sludge from the mercury cell process in chlorine production.) Nonwastewaters that contain greater than or equal to 260 mg/kg total mercury.	Chlorobenzene	108-90-7	0.057	6.0
		2-Chlorophenol	95-57-8	0.044	5.7
		o-Dichlorobenzene	95-50-1	0.088	6.0
		p-Dichlorobenzene	106-46-7	0.090	6.0
		Phenol	108-95-2	0.039	6.2
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		Mercury	7439-97-6	NA	RMERC
		Mercury	7439-97-6	NA	0.20 mg/l TCLP
		Mercury	7439-97-6	NA	0.025 mg/l TCLP
		Mercury	7439-97-6	0.15	NA
		Mercury	7439-97-6	0.15	NA
		Mercury	7439-97-6	0.15	NA
K107	Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters Concentration mg/l ³ ; or Technology Code ⁴	Nonwastewaters Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
		Common Name	CAS ² No.		
K108	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
K109	Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
K110	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
K111	Product washwaters from the production of dinitrotoluene via nitration of toluene.	2,4-Dinitrotoluene	121-1-1	0.32	140
		2,6-Dinitrotoluene	606-20-2	0.55	28
K112	Reaction byproduct water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.	NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	NA	NA	CARBN; or CMBST	CMBST
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	NA	NA	CARBN; or CMBST	CMBST
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	Nickel	7440-02-0	3.98	11 mg/l TCLP

TREATMENT STANDARDS FOR HAZARDOUS WASTES

		Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Common Name	CAS ² No.	Concentration mg/l ³ , or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.	NA	NA	CARBN; or CMBST	CMBST
		NA	NA	CARBN; or CMBST	CMBST
K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethane.	Methyl bromide (Bromomethane)	74-83-9	0.11	15
K118	Spent absorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	Chloroform	67-63-3	0.046	6.0
		Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
		Methyl bromide (Bromomethane)	74-83-9	0.11	15
		Chloroform	67-66-3	0.046	6.0
K123	Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salts.	Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
		NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
		K124	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts.	NA	NA
K125	Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts.	NA	Na	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES

386

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
K126	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts.	NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
K131	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide.	Methyl bromide (Bromomethane)	74-83-9	0.11	15
K132	Spent absorbent and wastewater separator solids from the production of methyl bromide.	Methyl bromide (Bromomethane)	74-83-9	0.11	15
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	Methyl bromide (Bromomethane)	74-83-9	0.11	15
		Chloroform	67-66-3	0.046	6.0
		Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
K141	Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke or the recovery of coke byproducts produced from coal. This listing does not include K087 (decanter tank tar sludge from coking operations).	Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-2-8	0.061	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ , or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
K142	Tar storage tank residues from the production of coke from coal or from the recovery of coke byproducts produced from coal.	Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
		Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Chrysene	218-01-9	0.059	3.4
K143	Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke byproducts produced from coal.	Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
		Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
388	K144	Chrysene	218-01-9	0.059	3.4
		Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
	K145	Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Chrysene	218-01-9	0.059	3.4
	K147	Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Naphthalene	91-20-3	0.059	5.6
		Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters	
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code	
389	K148	Residues from coal tar distillation, including, but not limited to, still bottoms.	Benzo(a)pyrene	50-32-8	0.061	3.4
			Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
			Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
			Chrysene	218-01-9	0.059	3.4
			Dibenz(a,h)anthracene	53-70-3	0.055	8.2
			Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
			Benz(a)anthracene	56-55-3	0.059	3.4
			Benzo(a)pyrene	50-32-8	0.061	3.4
			Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
			Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
			Chrysene	218-01-9	0.059	3.4
			Dibenz(a,h)anthracene	53-70-3	0.055	8.2
			Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
	K149	Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. (This waste does not include still bottoms from the distillations of benzyl chloride.)	Chlorobenzene	108-90-7	0.057	6.0
			Chloroform	67-66-3	0.046	6.0
			Chloromethane	74-87-3	0.19	30

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
390	K150 Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.	p-Dichlorobenzene	106-46-7	0.090	6.0
		Hexachlorobenzene	118-74-1	0.055	10
		Pentachlorobenzene	608-93-5	0.055	10
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		Toluene	108-88-3	0.080	10
		Carbon tetrachloride	56-23-5	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		Chloromethane	74-87-3	0.19	30
		p-Dichlorobenzene	106-46-7	0.090	6.0
		Hexachlorobenzene	118-74-1	0.055	10
		Pentachlorobenzene	608-93-5	0.055	10
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,2,4-Trichlorobenzene	120-82-1	0.055	19

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
391	K151 Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.	Benzene	71-43-2	0.14	10
		Carbon tetrachloride	56-23-5	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		Hexachlorobenzene	118-74-1	0.055	10
		Pentachlorobenzene	608-93-5	0.055	10
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		Tetrachloroethylene	127-18-4	0.056	6.0
		Toluene	108-88-3	0.080	10
	K156 Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes.	Acetonitrile	75-05-8	5.6	38.0
		Acetophenone	96-86-2	0.010	9.7
		Aniline	62-53-3	0.81	14
		Benomyl	17804-35-2	0.056	1.4
		Benzene	71-43-2	0.14	10
		Carbaryl	63-25-21	0.006	0.14
		Carbenzadim	10605-21-7	0.056	1.4
		Carbofuran	1563-66-2	0.006	0.14

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
392	K157 Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes.	Carbosulfan	55285-14-8	0.028	1.4
		Chlorobenzene	108-90-7	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		o-Dichlorobenzene	95-50-1	0.088	6.0
		Methomyl	16752-77-5	0.028	0.14
		Methylene chloride	75-09-2	0.089	30
		Methyl ethyl ketone	78-93-3	0.28	36
		Naphthalene	91-20-3	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyridine	110-86-1	0.014	16
		Toluene	108-88-3	0.080	10
		Triethylamine	121-44-8	0.081	1.5
		Carbon tetrachloride	56-23-5	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		Chloromethane	74-87-3	0.19	30
		Methomyl	16752-77-5	0.028	0.14
		Methylene chloride	75-09-2	0.089	30
		Methyl ethyl ketone	78-93-3	0.28	36
		o-Phenylenediamine	95-54-5	0.056	5.6
		Pyridine	110-86-1	0.014	16

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ , or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
393	K158	Triethylamine	121-44-8	0.081	1.5
		Benomyl	17804-35-2	0.056	1.4
		Benzene	71-43-2	0.14	10
		Carbenzadim	10605-21-7	0.056	1.4
		Carbofuran	1563-66-2	0.006	0.14
		Carbosulfan	55285-14-8	0.028	1.4
		Chloroform	67-66-3	0.046	6.0
		Methylene chloride	75-09-2	0.089	30
	K159	Phenol	108-95-2	0.039	6.2
		Benzene	71-43-2	0.14	10
		Butylate	2008-41-5	0.042	1.4
		EPTC (Eptam)	759-94-4	0.042	1.4
		Molinate	2212-67-1	0.042	1.4
		Pebulate	1114-71-2	0.042	1.4
	K161	Vernolate	1929-77-7	0.042	1.4
		Antimony	7440-36-0	1.9	1.15 mg/l TCLP
		Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
		Carbon disulfide	75-15-0	3.8	4.8 mg/l TCLP

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
394	K169 Crude oil tank sediment from petroleum refining operations.	Dithiocarbamates (total)	NA	0.028	28
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Nickel	7440-02-0	3.98	11.0 mg/l TCLP
		Selenium	7782-49-2	0.82	5.7 mg/l TCLP
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzene	71-43-2	0.14	10
		Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
		Chrysene	218-01-9	0.059	3.4
		Ethyl benzene	100-41-4	0.057	10
		Fluorene	86-73-7	0.059	3.4
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	81-05-8	0.059	5.6
		Pyrene	129-00-0	0.067	8.2
		Toluene (methyl benzene)	108-88-3	0.080	10
		Xylene(s)(Total)	1330-20-7	0.32	30
	K170 Clarified slurry oil sediment from petroleum refining operations.	Benz(a)anthracene	56-55-3	0.059	3.4
		Benzene	71-43-2	0.14	10
		Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2

TREATMENT STANDARDS FOR HAZARDOUS WASTES

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Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
K171	Spent hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media).	Ethyl benzene	100-41-4	0.057	10
		Fluorene	86-73-7	0.059	3.4
		Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	81-05-8	0.059	5.6
		Pyrene	129-00-0	0.067	8.2
		Toluene (Methyl benzene)	108-88-3	0.080	10
		Xylene(s)(Total)	1330-20-7	0.32	30
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzene	71-43-2	0.14	10
		Chrysene	218-01-9	0.059	3.4
		Ethyl benzene	100-41-4	0.057	10
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	81-05-8	0.059	5.6
		Pyrene	129-00-0	0.67	8.2
		Toluene (Methyl benzene)	108-88-3	0.080	10
		Xylene(s)(Total)	1330-20-7	0.32	30
		Arsenic	7740-38-2	1.4	5 mg/l TCLP
		Nickel	7440-02-0	3.98	11.0 mg/l TCLP

TREATMENT STANDARDS FOR HAZARDOUS WASTES

		Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
K172	Spent hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media).	Vanadium	7440-62-2	4.3	1.6 mg/l TCLP
		Reactive sulfides	NA	DEACT	DEACT
		Benzene	71-43-2	0.14	10
		Ethyl benzene	100-41-4	0.57	10
		Toluene (Methyl benzene)	108-88-3	0.080	10
		Xylene(s)(Total)	1330-20-7	0.32	30
		Antimony	7740-36-0	1.9	1.15 mg/l TCLP
		Arsenic	7740-38-2	1.4	5 mg/l TCLP
		Nickel	7440-02-0	3.98	11.0 mg/l TCLP
		Vanadium	7440-62-2	4.3	1.6 mg/l TCLP
K174	Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer.	Reactive sulfides	NA	DEACT	DEACT
		1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	35822-46-9	0.000035 or CMBST ¹¹	0.0025 or CMBST ¹¹
		1,2,3,4,6,7,8- Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562-39-4	0.000035 or CMBST ¹¹	0.0025 or CMBST ¹¹
		1,2,3,4,7,8,9- Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673-89-7	0.000035 or CMBST ¹¹	0.0025 or CMBST ¹¹
		HxCDDs (All Hexachlorodibenzo-p-dioxins)	34465-46-8	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹
		HxCDFs (All Hexachlorodibenzofurans)	55684-94-1	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
397	K175 Wastewater treatment sludge from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process.	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	0.000063 or CMBST ¹¹	0.005 or CMBST ¹¹
		1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	0.000063 or CMBST ¹¹	0.005 or CMBST ¹¹
		PeCDDs (All Pentachlorodibenzo-p-dioxins)	36088-22-9	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹
		PeCDFs (All Pentachlorodibenzofurans)	30402-15-4	0.000035 or CMBST ¹¹	0.001 or CMBST ¹¹
		TCDDs (All Tetrachlorodibenzo-p-dioxins)	41903-57-5	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹
		TCDFs (All Tetrachlorodibenzofurans)	55722-27-5	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹
		Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
		Mercury ¹²	7438-97-6	NA	0.025 mg/l TCLP
		pH ¹²	NA	NA	pH ≤ 6.0
		All K175 wastewaters.	Mercury	7438-97-6	0.15
K176	Baghouse filters from the production of antimony oxide, including filters from the production of intermediates (for example, antimony metal or crude antimony oxide).	Antimony	7440-36-0	1.9	1.15 mg/l TCLP
		Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
		Cadmium	7440-43-9	0.69	0.11 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Mercury	7439-97-6	0.15	0.025 mg/l TCLP

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
K177	Slag from the production of antimony oxide that is speculatively accumulated or disposed, including slag from the production of intermediates (for example, antimony metal or crude antimony oxide).	Antimony	7440-36-0	1.9	1.15 mg/l TCLP
		Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
K178	Residues from manufacturing and manufacturing-site storage of ferric chloride from acids formed during the production of titanium dioxide using the chloride-ilmenite process.	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	35822-39-4	0.000035 or CMBST ¹¹	0.0025 or CMBST ¹¹
		1,2,3,4,6,7,8- Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562-39-4	0.000035 or CMBST ¹¹	0.0025 or CMBST ¹¹
		1,2,3,4,6,7,9- Heptachlorodibenzofuran (1,2,3,4,6,7,9-HpCDF)	55673-89-7	0.000035 or CMBST ¹¹	0.0025 or CMBST ¹¹
		HxCDDs (All Hexachlorodibenzo-p-dioxins)	34465-46-8	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹
		HxCDFs (All Hexachlorodibenzofurans)	55684-94-1	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹
		1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	0.000063 or CMBST ¹¹	0.005 or CMBST ¹¹
		1,2,3,4,6,7,8,9- Octachlorodibenzofuran (OCDF)	39001-02-0	0.000063 or CMBST ¹¹	0.005 or CMBST ¹¹
		PeCDDs (All Pentachlorodibenzo-p-dioxins)	36088-22-9	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹
		PeCDFs (All Pentachlorodibenzofurans)	30402-15-4	0.000035 or CMBST ¹¹	0.001 or CMBST ¹¹
		TCDDs (All Tetrachlorodibenzo-p-dioxins)	41903-57-5	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
699	P001 Warfarin, and salts, when present at concentrations greater than 0.3 percent.	TCDFs (All Tetrachlorodibenzofurans)	55722-27-5	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹
		Thallium	7440-28-0	1.4	0.20 mg/l TCLP
		Warfarin	81-81-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
		1-Acetyl-2-thiourea	591-08-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
	P003 Acrolein	Acrolein	107-02-8	0.29	CMBST
	P004 Aldrin	Aldrin	309-00-2	0.021	0.066
	P005 Allyl alcohol	Allyl alcohol	107-18-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
	P006 Aluminum phosphide	Aluminum phosphide	20859-73-8	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
	P007 5-Aminomethyl 3-isoxazolol	5-Aminomethyl 3-isoxazolol	2763-96-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
	P008 4-Aminopyridine	4-Aminopyridine	504-24-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
	P009 Ammonium picrate	Ammonium picrate	131-74-8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
	P010 Arsenic acid	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
	P011 Arsenic pentoxide	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
	P012 Arsenic trioxide	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
	P013 Barium cyanide	Barium	7440-39-3	NA	21 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30

TREATMENT STANDARDS FOR HAZARDOUS WASTES

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Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
P014	Thiophenol (Benzene thiol)	Thiophenol (Benzene thiol)	108-98-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P015	Beryllium dust	Beryllium	7440-41-7	RMETL; or RTHRM	RMETL; or RTHRM
P016	Dichloromethyl ether (Bis(chloromethyl)ether)	Dichloromethyl ether	542-88-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P017	Bromoacetone	Bromoacetone	598-31-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P018	Brucine	Brucine	357-57-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P020	2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	88-85-7	0.066	2.5
P021	Calcium cyanide	Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
P022	Carbon disulfide	Carbon disulfide	75-15-0	3.8	CMBST
		Carbon disulfide; alternate ⁶ standard for nonwastewaters only	75-15-0	NA	4.8 mg/l TCLP
P023	Chloroacetaldehyde	Chloroacetaldehyde	107-20-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P024	p-Chloroaniline	p-Chloroaniline	106-47-8	0.46	16
P026	1-(o-Chlorophenyl)thiourea	1-(o-Chlorophenyl)thiourea	5344-82-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P027	3-Chloropropionitrile	3-Chloropropionitrile	542-76-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P028	Benzyl chloride	Benzyl chloride	100-44-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P029	Copper cyanide	Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
401	P030	Cyanides (soluble salts and complexes)	Cyanides (Total) ⁷	57-12-5	1.2
			Cyanides (Amenable) ⁷	57-12-5	0.86
	P031	Cyanogen	Cyanogen	460-19-5	CHOXD; WETOX; or CMBST
	P033	Cyanogen chloride	Cyanogen chloride	506-77-4	CHOXD; WETOX; or CMBST
	P034	2-Cyclohexyl-4,6-dinitrophenol	2-Cyclohexyl-4,6-dinitrophenol	131-89-5	(WETOX or CHOXD) fb CARBN; or CMBST
	P036	Dichlorophenylarsine	Arsenic	7440-38-2	1.4
	P037	Dieldrin	Dieldrin	60-57-1	0.017
	P038	Diethylarline	Arsenic	7440-38-2	1.4
	P039	Disulfoton	Disulfoton	298-04-4	0.017
	P040	0,0-Diethyl O-pyrazinyl phosphorothioate	0,0-Diethyl O-pyrazinyl phosphorothioate	297-97-2	CARBN; or CMBST
	P041	Diethyl-p-nitrophenyl phosphate	Diethyl-p-nitrophenyl phosphate	311-45-5	CARBN; or CMBST
	P042	Epinephrine	Epinephrine	51-43-4	(WETOX or CHOXD) fb CARBN; or CMBST
	P043	Diisopropylfluorophosphate (DFP)	Diisopropylfluorophosphate (DFP)	55-91-4	CARBN; or CMBST
	P044	Dimethoate	Dimethoate	60-51-5	CARBN; or CMBST
	P045	Thiofanox	Thiofanox	39196-18-4	(WETOX or CHOXD) fb CARBN; or CMBST
	P046	Alpha, alpha-Dimethyl-phenethylamine	alpha, alpha-Dimethyl-phenethylamine	122-09-8	(WETOX or CHOXD) fb CARBN; or CMBST
	P047	4,6-Dinitro-o-cresol	4,6-Dinitro-o-cresol	543-52-1	0.28
		4,6-Dinitro-o-cresol salts	NA	NA	(WETOX or CHOXD) fb CARBN; or CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
P048	2,4-Dinitrophenol	2,4-Dinitrophenol	51-28-5	0.12	160
P049	Dithiobiuret	Dithiobiuret	541-53-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P050	Endosulfan	Endosulfan I	939-98-8	0.023	0.066
		Endosulfan II	33213-6-5	0.029	0.13
		Endosulfan sulfate	1031-07-8	0.029	0.13
P051	Endrin	Endrin	72-20-8	0.0028	0.13
		Endrin aldehyde	7421-93-4	0.025	0.13
P054	Aziridine	Aziridine	151-56-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P056	Fluorine	Fluoride (measured in wastewaters only)	16964-48-8	35	ADGAS fb NEUTR
P057	Fluoroacetamide	Fluoroacetamide	640-19-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P058	Fluoroacetic acid, sodium salt	Fluoroacetic acid, sodium salt	62-74-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P059	Heptachlor	Heptachlor	76-44-8	0.0012	0.066
		Heptachlor epoxide	10234-57-3	0.016	0.066
P060	Isodrin	Isodrin	465-73-6	0.021	0.066
P062	Hexaethyl tetraphosphate	Hexaethyl tetraphosphate	757-58-4	CARBN; or CMBST	CMBST
P063	Hydrogen cyanide	Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
P064	Isocyanic acid, ethyl ester	Isocyanic acid, ethyl ester	624-83-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES

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Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters Concentration mg/l ³ ; or Technology Code ⁴	Nonwastewaters Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
		Common Name	CAS ² No.		
P065	Mercury fulminate nonwastewaters, regardless of their total mercury content, that are not incinerator residues or are not residues from RMERC.	Mercury	7439-97-6	NA	IMERC
	Mercury fulminate nonwastewaters that are either incinerator residues or are residues from RMERC; and contain greater than or equal to 260 mg/kg total mercury.	Mercury	7339-97-6	NA	RMERC
	Mercury fulminate nonwastewaters that are residues from RMERC and contain less than 260 mg/kg total mercury.	Mercury	7439-97-6	NA	0.20 mg/l TCLP
	Mercury fulminate nonwastewaters that are incinerator residues and contain less than 260 mg/kg total mercury.	Mercury	7439-97-6	NA	0.025 mg/l TCLP
	All mercury fulminate wastewaters.	Mercury	7439-97-6	0.15	NA
P066	Methomyl	Methomyl	16752-77-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P067	2-Methyl-aziridine	2-Methyl-aziridine	75-55-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P068	Methyl hydrazine	Methyl hydrazine	60-34-4	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED, OR CMBST
P069	2-Methylacetonitrile	2-Methylacetonitrile	75-86-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P070	Aldicarb	Aldicarb	116-06-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P071	Methyl parathion	Methyl parathion	298-00-0	0.014	4.6
P072	1-Naphthyl-2-thiourea	1-Naphthyl-2-thiourea	86-88-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
P073	Nickel carbonyl	Nickel	7440-02-0	3.98	11.0 mg/l TCLP
P074	Nickel-cyanide	Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
		Nickel	7440-02-0	3.98	11.0 mg/l TCLP
P075	Nicotine and salts	Nicotine and salts	54-11-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P076	Nitric oxide	Nitric oxide	10102-43-9	ADGAS	ADGAS
P077	p-Nitroaniline	p-Nitroaniline	100-01-6	0.028	28
P078	Nitrogen dioxide	Nitrogen dioxide	10102-44-0	ADGAS	ADGAS
P081	Nitroglycerin	Nitroglycerin	55-63-0	CHOXD; CHRED; CARBN; BIODG or CMBST	CHOXD; CHRED; or CMBST
P082	N-Nitrosodimethylamine	N-Nitrosodimethylamine	62-75-9	0.40	2.3
P084	N-Nitrosomethylvinylamine	N-Nitrosomethylvinylamine	4549-40-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P085	Octamethylpyrophosphoramidate	Octamethylpyrophosphoramidate	152-16-9	CARBN; or CMBST	CMBST
P087	Osmium tetroxide	Osmium tetroxide	20816-12-0	RMETL; or RTHRM	RMETL; or RTHRM
P088	Endothall	Endothall	145-73-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P089	Parathion	Parathion	56-38-2	0.014	4.6
P092	Phenyl mercuric acetate nonwastewaters, regardless of their total mercury content, that are not incinerator residues or are not residues from RMERC.	Mercury	7439-97-6	NA	IMERC; or RMERC

TREATMENT STANDARDS FOR HAZARDOUS WASTES

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Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters Concentration mg/l ³ ; or Technology Code ⁴	Nonwastewaters Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
		Common Name	CAS ² No.		
	Phenyl mercuric acetate nonwastewaters that are either incinerator residues or are residues from RMERC; and still contain greater than or equal to 260 mg/kg total mercury.	Mercury	7439-97-6	NA	RMERC
	Phenyl mercuric acetate nonwastewaters that are residues from RMERC and contain less than 160 mg/kg total mercury.	Mercury	7439-97-6	NA	0.20 mg/l TCLP
	Phenyl mercuric acetate nonwastewaters that are incinerator residues and contain less than 260 mg/kg total mercury.	Mercury	7439-97-6	NA	0.025 mg/l TCLP
	All phenyl mercuric acetate wastewaters.	Mercury	7439-97-6	0.15	NA
P093	Phenylthiourea	Phenylthiourea	103-85-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P094	Phorate	Phorate	298-02-2	0.021	4.6
P095	Phosgene	Phosgene	75-44-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P096	Phosphine	Phosphine	7803-51-2	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
P097	Famphur	Famphur	52-85-7	0.017	15
P098	Postassium cyanide	Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
P099	Potassium silver cyanide	Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
		Silver	7440-22-4	0.43	0.14 mg/l TCLP
P101	Ethyl cyanide (Propanenitrile)	Ethyl cyanide (Propanenitrile)	107-12-0	0.24	360

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
P102	Propargyl alcohol	Propargyl alcohol	107-19-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P103	Selenourea	Selenium	7782-49-2	0.82	5.7 mg/l TCLP
P104	Silver cyanide	Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
		Silver	7440-22-4	0.43	0.14 mg/l TCLP
P105	Sodium azide	Sodium azide	26628-22-8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P106	Sodium cyanide	Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
P108	Strychnine and salts	Strychnine and salts	57-24-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P109	Tetraethyldithiopyrophosphate	Tetraethyl- dithiopyrophosphate	3689-24-5	CARBN; or CMBST	CMBST
P110	Tetraethyl lead	Lead	7439-92-1	0.69	0.75 mg/l TCLP
P111	Tetraethylpyrophosphate	Tetraethylpyrophosphate	107-49-3	CARBN; or CMBST	CMBST
P112	Tetranitromethane	Tetranitromethane	509-14-8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P113	Thallic oxide	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
P114	Thallium selenite	Selenium	7782-49-2	0.82	5.7 mg/l TCLP
P115	Thallium (I) sulfate	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
P116	Thiosemicarbazide	Thiosemicarbazide	79-19-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ , or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
P118	Trichloromethanethiol	Trichloromethanethiol	75-70-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P119	Ammonium vanadate	Vanadium (measured in wastewaters only)	7440-62-2	4.3	STABL
P120	Vanadium pentoxide	Vanadium (measured in wastewaters only)	7440-62-2	4.3	STABL
P121	Zinc cyanide	Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
P122	Zinc phosphide Zn ₃ P ₂ , when present at concentrations greater than 10 percent.	Zinc Phosphide	1314-84-7	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
P123	Toxaphene	Toxaphene	8001-35-2	0.0095	2.6
P127	Carbofuran	Carbofuran	1563-66-2	0.006	0.14
P128	Mexacarbate	Mexacarbate	315-18-4	0.056	1.4
P185	Tirpate ¹⁰	Tirpate	26419-73-8	0.056	0.28
P188	Physostigmine salicylate	Physostigmine salicylate	57-64-7	0.056	1.4
P189	Carbosulfan	Carbosulfan	55285-14-8	0.028	1.4
P190	Metolcarb	Metolcarb	1129-41-5	0.056	1.4
P191	Dimetilan ¹⁰	Dimetilan	644-64-4	0.056	1.4
P192	Isolan ¹⁰	Isolan	119-38-0	0.056	1.4
P194	Oxamyl	Oxamyl	23135-22-0	0.056	0.28
P196	Manganese dimethyldithiocarbamate ¹⁰	Dithiocarbamates (total)	NA	0.028	28
P197	Formparanate ¹⁰	Formparanate	17702-57-7	0.056	1.4
P198	Formetanate hydrochloride	Formetanate hydrochloride	23422-53-9	0.056	1.4

TREATMENT STANDARDS FOR HAZARDOUS WASTES

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Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
P199	Methiocarb	Methiocarb	2032-65-7	0.056	1.4
P201	Promecarb	Promecarb	2631-37-0	0.056	1.4
P202	M-Cumeyl methylcarbamate	m-Cumenyl methylcarbamate	64-00-6	0.056	1.4
P203	Aldicarb sulfone	Aldicarb sulfone	1646-88-4	0.056	0.28
P204	Physostigmine	Physostigmine	57-47-6	0.056	1.4
P205	Ziram	Dithiocarbamates (total)	NA	0.028	28
U001	Acetaldehyde	Acetaldehyde	75-07-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U002	Acetone	Acetone	67-64-1	0.28	160
U003	Acetonitrile	Acetonitrile	75-05-8	5.6	CMBST
		Acetonitrile; alternate ⁶ standard for nonwastewaters only	75-05-8	NA	38
U004	Acetophenone	Acetophenone	98-86-2	0.010	9.7
U005	2-Acetylaminofluorene	2-Acetylaminofluorene	53-96-3	0.059	140
U006	Acetyl chloride	Acetyl Chloride	75-36-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U007	Acrylamide	Acrylamide	79-06-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U008	Acrylic acid	Acrylic acid	79-10-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U009	Acrylonitrile	Acrylonitrile	107-13-1	0.24	84
U010	Mitomycin C	Mitomycin C	50-07-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U011	Amitrole	Amitrole	61-82-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
U012	Aniline	Aniline	62-53-3	0.81	14
U014	Auramine	Auramine	492-80-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U015	Azaserine	Azaserine	115-02-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U016	Benz(c)acridine	Benz(c)acridine	225-51-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U017	Benzal chloride	Benzal chloride	98-87-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U018	Benz(a)anthracene	Benz(a)anthracene	56-55-3	0.059	3.4
U019	Benzene	Benzene	71-43-2	0.14	10
U020	Benzenesulfonyl chloride	Benzenesulfonyl chloride	98-09-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U021	Benzidine	Benzidine	92-87-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U022	Benzo(a)pyrene	Benzo(a)pyrene	50-32-8	0.061	3.4
U023	Benzotrichloride	Benzotrichloride	98-07-7	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U024	bis(2-Chloroethoxy)methane	bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2
U025	bis(2-Chloroethyl)ether	bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
U026	Chlornaphazine	Chlornaphazine	494-03-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U027	bis(2-Chloroisopropyl)ether	bis(2-Chloroisopropyl)ether	39638-32-9	0.055	7.2
U028	bis(2-Ethylhexyl)phthalate	bis(2-Ethylhexyl)phthalate	117-81-7	0.28	28
U029	Methyl bromide (Bromomethane)	Methyl bromide (Bromomethane)	74-89-9	0.11	15

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
U030	4-Bromophenyl phenyl ether	4-Bromophenyl phenyl ether	101-55-3	0.055	15
U031	n-Butyl alcohol	n-Butyl alcohol	71-36-3	5.6	2.6
U032	Calcium chromate	Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
U033	Carbon oxyfluoride	Carbon oxyfluoride	353-50-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U034	Trichloroacetaldehyde (Chloral)	Trichloroacetaldehyde (Chloral)	75-87-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U035	Chlorambucil	Chlorambucil	305-03-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U036	Chlordane	Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
U037	Chlorobenzene	Chlorobenzene	108-90-7	0.057	6.0
U038	Chlorobenzilate	Chlorobenzilate	510-15-6	0.10	CMBST
U039	p-Chloro-m-cresol	p-Chloro-m-cresol	59-50-7	0.018	14
U041	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	106-89-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U042	2-Chloroethyl vinyl ether	2-Chloroethyl vinyl ether	110-75-8	0.062	CMBST
U043	Vinyl chloride	Vinyl chloride	75-01-4	0.27	6.0
U044	Chloroform	Chloroform	67-66-3	0.046	6.0
U045	Chloromethane (Methyl chloride)	Chloromethane (Methyl chloride)	74-87-3	0.19	30
U046	Chloromethyl methyl ether	Chloromethyl methyl ether	107-30-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U047	2-Chloronaphthalene	2-Chloronaphthalene	91-58-7	0.055	5.6
U048	2-Chlorophenol	2-Chlorophenol	95-57-8	0.044	5.7

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
U049	4-Chloro-o-toluidine hydrochloride	4-Chloro-o-toluidine hydrochloride	3165-93-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U050	Chrysene	Chrysene	218-01-9	0.059	3.4
U051	Creosote	Naphthalene	91-20-3	0.059	5.6
		Pentachlorophenol	87-86-5	0.089	7.4
		Phenanthrene	85-01-8	0.059	5.6
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.080	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		o-Cresol	95-48-7	0.11	5.6
U052	Cresols (Cresylic acid)	m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
		p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
		Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)	1319-77-3	0.88	11.2
U053	Crotonaldehyde	Crotonaldehyde	4170-30-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U055	Cumene	Cumene	98-82-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U056	Cyclohexane	Cyclohexane	110-82-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U057	Cyclohexanone	Cyclohexanone	108-94-1	0.36	CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
		Cyclohexanone; alternate ⁶ standard for nonwastewaters only	108-94-1	NA	0.75 mg/l TCLP
U058	Cyclophosphamide	Cyclophosphamide	50-18-0	CARBN; or CMBST	CMBST
U059	Daunomycin	Daunomycin	20830-81-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U060	DDD	o,p'-DDD	53-19-0	0.023	0.087
		p,p'-DDD	72-54-8	0.023	0.087
U061	DDT	o,p'-DDT	789-02-6	0.0039	0.087
		p,p'-DDT	50-29-3	0.0039	0.087
		o,p'-DDD	53-19-0	0.023	0.087
		p,p'-DDD	72-54-8	0.023	0.087
		o,p'-DDE	3424-82-6	0.031	0.087
		p,p'-DDE	72-55-9	0.031	0.087
U062	Diallate	Diallate	2303-16-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U063	Dibenz(a,h)anthracene	Dibenz(a,h)anthracene	53-70-3	0.055	8.2
U064	Dibenz(a,i)pyrene	Dibenz(a,i)pyrene	189-55-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U066	1,2-Dibromo-3-chloropropane	1,2-Dibromo-3-chloropropane	96-12-8	0.11	15
U067	Ethylene dibromide (1,2-Dibromoethane)	Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
U068	Dibromomethane	Dibromomethane	74-95-3	0.11	15
U069	Di-n-butyl phthalate	Di-n-butyl phthalate	84-74-2	0.057	28
U070	o-Dichlorobenzene	o-Dichlorobenzene	95-50-1	0.088	6.0

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
U071	m-Dichlorobenzene	m-Dichlorobenzene	541-73-1	0.036	6.0
U072	p-Dichlorobenzene	p-Dichlorobenzene	106-46-7	0.090	6.0
U073	3,3'-Dichlorobenzidine	3,3'-Dichlorobenzidine	91-94-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U074	1,4-Dichloro-2-butene	cis-1,4-Dichloro-2-butene	1476-11-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
		trans-1,4-Dichloro-2-butene	764-41-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U075	Dichlorodifluoromethane	Dichlorodifluoromethane	75-71-8	0.23	7.2
U076	1,1-Dichloroethane	1,1-Dichloroethane	75-34-3	0.059	6.0
U077	1,2-Dichloroethane	1,2-Dichloroethane	107-06-2	0.21	6.0
U078	1,1-Dichloroethylene	1,1-Dichloroethylene	75-35-4	0.025	6.0
U079	1,2-Dichloroethylene	trans-1,2-Dichloroethylene	156-60-5	0.054	30
U080	Methylene chloride	Methylene chloride	75-09-2	0.089	30
U081	2,4-Dichlorophenol	2,4-Dichlorophenol	120-83-2	0.044	14
U082	2,6-Dichlorophenol	2,6-Dichlorophenol	87-65-0	0.044	14
U083	1,2-Dichloropropane	1,2-Dichloropropane	78-87-5	0.85	18
U084	1,3-Dichloropropylene	cis-1,3-Dichloropropylene	10061-01-5	0.036	18
		trans-1,3-Dichloropropylene	10061-02-6	0.036	18
U085	1,2:3,4-Diepoxybutane	1,2:3,4-Diepoxybutane	1464-53-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U086	N,N'-Diethylhydrazine	N,N'-Diethylhydrazine	1615-80-1	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U087	O,O-Diethyl S-methyldithiophosphate	O,O-Diethyl S-methyldithiophosphate	3288-58-2	CARBN; CMBST	CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
U088	Diethyl phthalate	Diethyl phthalate	84-66-2	0.20	28
U089	Diethyl stilbestrol	Diethyl stilbestrol	56-53-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U090	Dihydrosafrole	Dihydrosafrole	94-58-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U091	3,3'-Dimethoxybenzidine	3,3'-Dimethoxybenzidine	119-90-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U092	Dimethylamine	Dimethylamine	124-40-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U093	p-Dimethylaminoazobenzene	p-Dimethylaminoazobenzene	60-11-7	0.13	CMBST
U094	7,12-Dimethylbenz(a)anthracene	7,12-Dimethylbenz(a)anthracene	57-97-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U095	3,3'-Dimethylbenzidine	3,3'-Dimethylbenzidine	119-93-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U096	alpha, alpha-Dimethyl benzyl hydroperoxide	alpha, alpha-Dimethyl benzyl hydroperoxide	80-15-9	CHOXD; CHRED; CARBN; BIODG; OR CMBST	CHOXD; CHRED; or CMBST
U097	Dimethylcarbamoyl chloride	Dimethylcarbamoyl chloride	79-44-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U098	1,1-Dimethylhydrazine	1,1-Dimethylhydrazine	57-14-7	CHOXD; CHRED; CARBN; BIODG; OR CMBST	CHOXD; CHRED; or CMBST
U099	1,2-Dimethylhydrazine	1,2-Dimethylhydrazine	540-73-8	CHOXD; CHRED; CARBN; BIODG; OR CMBST	CHOXD; CHRED; or CMBST
U101	2,4-Dimethylphenol	2,4-Dimethylphenol	105-67-9	0.036	14
U102	Dimethyl phthalate	Dimethyl phthalate	131-11-3	0.047	28
U103	Dimethyl sulfate	Dimethyl sulfate	77-78-1	CHOXD; CHRED; CARBN; BIODG; OR CMBST	CHOXD; CHRED; or CMBST
U105	2,4-Dinitrotoluene	2,4-Dinitrotoluene	121-14-2	0.32	140

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
U106	2,6-Dinitrotoluene	2,6-Dinitrotoluene	606-20-2	0.55	28
U107	Di-n-octyl phthalate	Di-n-octyl phthalate	117-84-0	0.017	28
U108	1,4-Dioxane	1,4-Dioxane	123-91-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
		1,4-Dioxane; alternate ⁶ standard for nonwastewaters only	123-91-1	12.0	170
U109	1,2-Diphenylhydrazine	1,2-Diphenylhydrazine	122-66-7	CHOXD; CHRED; CARBN; BIODG; OR CMBST	CHOXD; CHRED; or CMBST
		1,2-Diphenylhydrazine; alternate ⁶ standard for wastewaters only	122-66-7	0.087	NA
U110	Dipropylamine	Dipropylamine	142-84-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U111	Di-n-propylnitrosamine	Di-n-propylnitrosamine	621-64-7	0.40	14
U112	Ethyl acetate	Ethyl acetate	141-78-6	0.34	33
U113	Ethyl acrylate	Ethyl acrylate	140-88-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U114	Ethylenebisdithiocarbamic acid salts and esters	Ethylenebisdithiocarbamic acid	111-54-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U115	Ethylene oxide	Ethylene oxide	75-21-8	(WETOX or CHOXD) fb CARBN; or CMBST	CHOXD; or CMBST
		Ethylene oxide; alternate ⁶ standard for wastewaters only	75-21-8	0.12	NA
U116	Ethylene thiourea	Ethylene thiourea	96-45-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U117	Ethyl ether	Ethyl ether	60-29-7	0.12	160
U118	Ethyl methacrylate	Ethyl methacrylate	97-63-2	0.14	160

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
U119	Ethyl methane sulfonate	Ethyl methane sulfonate	62-50-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U120	Fluoranthene	Fluoranthene	206-44-0	0.068	3.4
U121	Trichloromonofluoromethane	Trichloromonofluoromethane	75-69-4	0.020	30
U122	Formaldehyde	Formaldehyde	50-00-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U123	Formic acid	Formic acid	64-18-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U124	Furan	Furan	110-00-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U125	Furfural	Furfural	98-01-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U126	Glycidylaldehyde	Glycidylaldehyde	765-34-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U127	Hexachlorobenzene	Hexachlorobenzene	118-74-1	0.055	10
U128	Hexachlorobutadiene	Hexachlorobutadiene	87-68-3	0.055	5.6
U129	Lindane	alpha-BHC	319-84-6	0.00014	0.066
		beta-BHC	319-85-7	0.00014	0.066
		delta-BHC	319-86-8	0.023	0.066
		gamma-BHC (Lindane)	58-89-9	0.0017	0.066
U130	Hexachlorocyclopentadiene	Hexachlorocyclopentadiene	77-47-4	0.057	2.4
U131	Hexachloroethane	Hexachloroethane	67-72-1	0.055	30
U132	Hexachlorophene	Hexachlorophene	70-30-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
U133	Hydrazine	Hydrazine	302-01-2	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U134	Hydrogen fluoride	Fluoride (measured in wastewaters only)	16964-48-8	35	ADGAS fb NEUTR; or NEUTR
U135	Hydrogen Sulfide	Hydrogen Sulfide	7783-06-4	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
U136	Cacodylic acid	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
U137	Indeno(1,2,3-cd)pyrene	Indeno(1,2,3-c, d)pyrene	193-39-5	0.0055	3.4
U138	Iodomethane	Iodomethane	74-88-4	0.19	65
U140	Isobutyl alcohol	Isobutyl alcohol	78-83-1	5.6	170
U141	Isosafrole	Isosafrole	120-58-1	0.081	2.6
U142	Kepone	Kepone	143-50-8	0.0011	0.13
U143	Lasiocarpine	Lasiocarpine	303-34-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U144	Lead acetate	Lead	7439-92-1	0.69	0.75 mg/l TCLP
U145	Lead phosphate	Lead	7439-92-1	0.69	0.75 mg/l TCLP
U146	Lead subacetate	Lead	7439-92-1	0.69	0.75 mg/l TCLP
U147	Maleic anhydride	Maleic anhydride	108-31-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U148	Maleic hydrazide	Maleic hydrazide	123-33-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U149	Malononitrile	Malononitrile	109-77-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U150	Melphalan	Melphalan	148-82-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES

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Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters Concentration mg/l ³ ; or Technology Code ⁴	Nonwastewaters Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
		Common Name	CAS ² No.		
U151	U151 (mercury) nonwastewaters that contain greater than or equal to 260 mg/kg total mercury.	Mercury	7439-97-6	NA	RMERC
	U151 (mercury) nonwastewaters that contain less than 260 mg/kg total mercury and that are residues from RMERC only.	Mercury	7439-97-6	NA	0.20 mg/l TCLP
	U151 (mercury) nonwastewaters that contain less than 260 mg/kg total mercury and that are not residues from RMERC.	Mercury	7439-97-6	NA	0.025 mg/l TCLP
	All U151 (mercury) wastewaters.	Mercury	7439-97-6	0.15	NA
	Elemental mercury contaminated with radioactive materials.	Mercury	7439-97-6	NA	AMLGM
U152	Methacrylonitrile	Methacrylonitrile	126-98-7	0.24	84
U153	Methanethiol	Methanethiol	74-93-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U154	Methanol	Methanol	67-56-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
		Methanol, alternate ⁶ set of standards for both wastewaters and nonwastewaters	67-56-1	5.6	0.75 mg/l TCLP
U155	Methapyrilene	Methapyrilene	91-80-5	0.081	1.5
U156	Methyl chlorocarbonate	Methyl chlorocarbonate	79-22-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U157	3-Methylcholanthrene	3-Methylcholanthrene	56-49-5	0.0055	15
U158	4,4'-Methylene bis(2-chloroaniline)	4,4'-Methylene bis(2-chloroaniline)	101-14-4	0.50	30
U159	Methyl ethyl ketone	Methyl ethyl ketone	78-93-3	0.28	36

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
U160	Methyl ethyl ketone peroxide	Methyl ethyl ketone peroxide	1338-23-4	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U161	Methyl isobutyl ketone	Methyl isobutyl ketone	108-10-1	0.14	33
U162	Methyl methacrylate	Methyl methacrylate	80-62-6	0.14	160
U163	N-Methyl N'-nitro N-nitrosoguanidine	N-Methyl N'-nitro N-nitrosoguanidine	70-25-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U164	Methylthiouracil	Methylthiouracil	56-04-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U165	Naphthalene	Naphthalene	91-20-3	0.059	5.6
U166	1,4-Naphthoquinone	1,4-Naphthoquinone	130-15-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U167	1-Naphthylamine	1-Naphthylamine	134-32-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U168	2-Naphthylamine	2-Naphthylamine	91-59-8	0.52	CMBST
U169	Nitrobenzene	Nitrobenzene	98-95-3	0.068	14
U170	p-Nitrophenol	p-Nitrophenol	100-02-7	0.12	29
U171	2-Nitropropane	2-Nitropropane	79-46-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U172	N-Nitrosodi-n-butylamine	N-Nitrosodi-n-butylamine	924-16-3	0.40	17
U173	N-Nitrosodiethanolamine	N-Nitrosodiethanolamine	1116-54-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U174	N-Nitrosodiethylamine	N-Nitrosodiethylamine	55-18-5	0.40	28
U176	N-Nitroso-N-ethylurea	N-Nitroso-N-ethylurea	759-73-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U177	N-Nitroso-N-methylurea	N-Nitroso-N-methylurea	684-93-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
U178	N-Nitroso-N-methylurethane	N-Nitroso-N-methylurethane	615-53-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U179	N-Nitrosopiperidine	N-Nitrosopiperidine	100-75-4	0.013	35
U180	N-Nitrosopyrrolidine	N-Nitrosopyrrolidine	93-55-2	0.013	35
U181	5-Nitro-o-toluidine	5-Nitro-o-toluidine	99-55-8	0.32	28
U182	Paraldehyde	Paraldehyde	123-63-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U183	Pentachlorobenzene	Pentachlorobenzene	608-93-5	0.055	10
U184	Pentachloroethane	Pentachloroethane	76-01-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
		Pentachloroethane; alternate ⁶ standards for both wastewaters and nonwastewaters	76-01-7	0.055	6.0
U185	Pentachloronitrobenzene	Pentachloronitrobenzene	82-68-8	0.055	4.8
U186	1,3-Pentadiene	1,3-Pentadiene	504-60-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U187	Phenacetin	Phenacetin	62-44-2	0.081	16
U188	Phenol	Phenol	108-95-2	0.039	6.2
U189	Phosphorus sulfide	Phosphorus sulfide	1314-80-3	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
U190	Phthalic anhydride (measured as phthalic acid or terephthalic acid).	Phthalic anhydride (measured as phthalic acid or terephthalic acid)	100-21-0	0.055	28
		Phthalic anhydride	85-44-9	0.055	28
U191	2-Picoline	2-Picoline	109-06-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U192	Pronamide	Pronamide	23950-58-5	0.093	1.5

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
U193	1,3-Propane sultone	1,3-Propane sultone	1120-71-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U194	n-Propylamine	n-Propylamine	107-10-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U196	Pyridine	Pyridine	110-86-1	0.014	16
U197	p-Benzoquinone	p-Benzoquinone	106-51-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U200	Reserpine	Reserpine	50-55-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U201	Resorcinol	Resorcinol	108-46-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U202	Saccharin and salts	Saccharin	81-07-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U203	Safrole	Safrole	94-59-7	0.081	22
U204	Selenium dioxide	Selenium	7782-49-2	0.82	5.7 mg/l TCLP
U205	Selenium sulfide	Selenium	7782-49-2	0.82	5.7 mg/l TCLP
U206	Streptozotocin	Streptozotocin	18883-66-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U207	1,2,4,5-Tetrachlorobenzene	1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
U208	1,1,1,2-Tetrachloroethane	1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
U209	1,1,2,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0
U210	Tetrachloroethylene	Tetrachloroethylene	127-18-4	0.056	6.0
U211	Carbon tetrachloride	Carbon tetrachloride	56-23-5	0.057	6.0
U213	Tetrahydrofuran	Tetrahydrofuran	109-99-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters Concentration mg/l ³ ; or Technology Code ⁴	Nonwastewaters Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
		Common Name	CAS ² No.		
U214	Thallium (I) acetate	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U215	Thallium (I) carbonate	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U216	Thallium (I) chloride	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U217	Thallium (I) nitrate	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U218	Thioacetamide	Thioacetamide	62-55-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U219	Thiourea	Thiourea	62-56-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U220	Toluene	Toluene	108-88-3	0.080	10
U221	Toluenediamine	Toluenediamine	25376-45-8	CARBN; or CMBST	CMBST
U222	o-Toluidine hydrochloride	o-Toluidine hydrochloride	636-21-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U223	Toluene diisocyanate	Toluene diisocyanate	26471-62-5	CARBN; or CMBST	CMBST
U225	Bromoform (Tribromomethane)	Bromoform (Tribromomethane)	75-25-2	0.63	15
U226	1,1,1-Trichloroethane	1,1,1-Trichloroethane	71-55-6	0.054	6.0
U227	1,1,2-Trichloroethane	1,1,2-Trichloroethane	79-00-5	0.054	6.0
U228	Trichloroethylene	Trichloroethylene	79-01-6	0.054	6.0
U234	1,3,5-Trinitrobenzene	1,3,5-Trinitrobenzene	99-35-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U235	tris-(2,3-Dibromopropyl)-phosphate	tris-(2,3-Dibromopropyl)- phosphate	126-72-7	0.11	0.10

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
U236	Trypan Blue	Trypan Blue	72-57-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U237	Uracil mustard	Uracil mustard	66-75-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U238	Urethane (Ethyl carbamate)	Urethane (Ethyl carbamate)	51-79-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U239	Xylenes	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
U240	2,4-D (2,4-Dichlorophenoxyacetic acid)	2,4-D (2,4-Dichlorophenoxyacetic acid)	94-75-7	0.72	10
	2,4-D (2,4-Dichlorophenoxyacetic acid) salts and esters		NA	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U243	Hexachloropropylene	Hexachloropropylene	1888-71-7	0.035	30
U244	Thiram	Thiram	137-26-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U246	Cyanogen bromide	Cyanogen bromide	506-68-3	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
U247	Methoxychlor	Methoxychlor	72-43-5	0.25	0.18
U248	Warfarin, and salts, when present at concentrations of 0.3% or less.	Warfarin	81-81-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U249	Zinc phosphide, Zn ₃ P ₂ , when present at concentrations of 10% or less.	Zinc Phosphide	1314-84-7	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
U271	Benomyl	Benomyl	17804-35-2	0.056	1.4
U278	Bendiocarb	Bendiocarb	22781-23-3	0.056	1.4
U279	Carbaryl	Carbaryl	63-25-2	0.006	0.14
U280	Barban	Barban	101-27-9	0.056	1.4

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
		Common Name	CAS ² No.	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
U328	o-Toluidine	o-Toluidine	95-53-4	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST
U353	p-Toluidine	p-Toluidine	106-49-0	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST
U359	2-Ethoxyethanol	2-Ethoxyethanol	110-80-5	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST
U364	Bendiocarb phenol ¹⁰	Bendiocarb phenol	22961-82-6	0.056	1.4
U367	Carbofuran phenol	Carbofuran phenol	1563-38-8	0.056	1.4
U372	Carbendazim	Carbendazim	10605-21-7	0.056	1.4
U373	Propham	Propham	122-42-9	0.056	1.4
U387	Prosulfocarb	Prosulfocarb	52888-80-9	0.042	1.4
U389	Triallate	Triallate	2303-17-5	0.042	1.4
U394	A2213 ¹⁰	A2213	30558-43-1	0.042	1.4
U395	Diethylene glycol, dicarbamate ¹⁰	Diethylene glycol, dicarbamate	5952-26-1	0.056	1.4
U404	Triethylamine	Triethylamine	101-44-8	0.081	1.5
U409	Thiophanate-methyl	Thiophanate-methyl	23564-05-8	0.056	1.4
U410	Thiodicarb	Thiodicarb	59669-26-0	0.019	1.4
U411	Propoxur	Propoxur	114-26-1	0.056	1.4

Notes to Table:

1. The waste descriptions provided in this table do not replace waste descriptions in chapter 33-24-02. Descriptions of treatment/regulatory subcategories are provided, as needed, to distinguish between applicability of different standards.
2. CAS means Chemical Abstract Services. When the waste code and/or regulated constituents are described as a combination of a chemical with its salts and/or esters, the CAS number is given for the parent compound only.
3. Concentration standards for wastewaters are expressed in mg/l and are based on analysis of composite samples.
4. All treatment standards expressed as a Technology Code or combination of Technology Codes are explained in detail in section 33-24-05-282 Table 1 - Technology Codes and Descriptions of Technology-Based Standards.
5. Except for metals (extraction procedure or toxicity characteristic leaching procedure) and cyanides (total and amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of sections 33-24-05-144 through 33-24-05-159 or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in subsection 4 of section 33-24-05-280. All concentration standards for nonwastewaters are based on analysis of grab samples.
6. Where an alternate treatment standard or set of alternate standards has been indicated, a facility may comply with this alternate standard, but only for the treatment/regulatory subcategory or physical form (for example, wastewater and/or nonwastewater) specified for that alternate standard.
7. Both cyanides (total) and cyanides (amenable) for nonwastewaters are to be analyzed using Method 9010 or 9012, found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Environmental Protection Agency publication SW-846, as incorporated by reference in section 33-24-01-05, with a sample size of 10 grams and a distillation time of one hour and fifteen minutes.
8. These wastes, when rendered nonhazardous and then subsequently managed in Clean Water Act, or Clean Water Act-equivalent systems, are not subject to treatment standards. (See subdivisions c and d of subsection 3 of section 33-24-05-250.)
9. These wastes, when rendered nonhazardous and then subsequently injected in a class I Safe Drinking Water Act well are not subject to treatment standards. (See 40 CFR section 148.1(d).)
10. The treatment standard for this waste may be satisfied by either meeting the constituent concentrations in this table or by treating the waste by the specified technologies: combustion, as defined by the technology code CMBST in table 1 in section 33-24-05-282, for nonwastewaters; and, biodegradation as defined by the technology code BIODG, carbon adsorption as defined by the technology code CARBN, chemical oxidation as defined by the technology code CHOXD, or combustion as defined by the technology code CMBST in table 1 of section 33-24-05-282, for wastewaters.
11. For these wastes, the definition of CMBST is limited to: (1) combustion units operating under sections 33-24-05-201 through 33-24-05-249, (2) combustion units permitted under sections 33-24-05-144 through 33-24-05-159, or (3) combustion units operating under the applicable standards of subsection 5 of section 33-24-06-16, which have obtained a determination of equivalent treatment under subsection 2 of section 33-24-05-282.
12. Disposal of K175 wastes that have complied with all applicable section 33-24-05-280 treatment standards must also be macroencapsulated in accordance with section 33-24-05-285 table 1 unless the waste is placed in: (1) A monofill regulated under article 33-20 containing only K175 wastes that meet all applicable section 33-24-05-280 treatment standards; or (2) A dedicated landfill cell regulated under article 33-20 in which all other wastes being co-disposed are at pH 6.0 or less.