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CHAPTER 33-24-04

33-24-04-01. Scope.

1. This chapter establishes standards which apply to persons transporting hazardous waste within this state if the transportation requires a manifest under chapter 33-24-03.
2. This chapter does not apply to onsite transportation of hazardous waste by generators or by owners or by operators of permitted hazardous waste management facilities.
3. A transporter of hazardous waste must also comply with chapter 33-24-03 if the transporter:
 - a. Transports hazardous waste into this state from abroad; or
 - b. Mixes hazardous waste of different department of transportation shipping descriptions by placing them into a single container.

[NOTE: The transporter in complying with these requirements does not become the generator of the waste.]

4. [Reserved]

5. Persons responding to an explosives or munitions emergency in accordance with subparagraph d of paragraph 1 of subdivision g of subsection 6 of section 33-24-05-01 or paragraph 4 of subdivision g of subsection 6 of section 33-24-05-01 or 40 CFR 265.1(c)(11)(i)(D) or (iv) as incorporated by reference in subsection 5 of section 33-24-06-16, and item 4 of subparagraph a and subparagraph c of paragraph 9 of subdivision b of subsection 2 of section 33-24-06-01, are not required to comply with the standards of chapter 33-24-03.
6. Section 33-24-05-823 identifies how the requirements of this part apply to military munitions classified as solid waste under section 33-24-05-822.

History: Effective January 1, 1984; 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

33-24-04-02. Identification number and registration certificate.

1. A transporter may not transport hazardous wastes without having received an identification number, a transporter permit, and a registration certificate from the department.

2. A transporter who has not received an identification number and a registration certificate, or a transporter permit, may obtain them by applying to the department. Upon receiving the request, the department will assign an identification number and issue a registration certificate to the transporter.
3. The department may assess and collect reasonable fees for the issuance of registration certificates and transporter permits.

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

General Authority: NDCC 23-20.3-03, 23-20.3-05.1

Law Implemented: NDCC 23-20.3-03, 23-20.3-04, 23-20.3-05.1

CHAPTER 33-24-05

33-24-05-01. Purpose, scope, and applicability.

1. The purpose of this chapter is to establish minimum standards which define the acceptable management of hazardous waste.
2. The standards in this chapter apply to owners and operators of all facilities which treat, store, or dispose of hazardous waste, except as specifically provided otherwise in this chapter or chapter 33-24-02.
3. The requirements of this chapter apply to a person disposing of hazardous waste by means of underground injection subject to a permit issued under an underground injection control program approved or promulgated under the Safe Drinking Water Act only to the extent they are required by chapter 33-24-06.
4. The requirements of this chapter apply to the owner or operator of a publicly owned treatment works which treats, stores, or disposes of hazardous waste only to the extent they are included in a hazardous waste permit by rule granted to such a person under chapter 33-24-06.
5. The requirements of this chapter apply to recyclable materials used in a manner constituting disposal, hazardous waste burned for energy recovery, recyclable materials utilized for precious metal recovery, and spent lead acid batteries being reclaimed.
6. The requirements of this chapter do not apply to:
 - a. The owner or operator of a facility permitted, licensed, or registered by the department to manage municipal or industrial solid waste, if the only hazardous waste the facility treats, stores, or disposes of is excluded from regulation under section 33-24-02-05.
 - b. The owner or operator of a facility managing recyclable materials described in subdivisions b, c, and d of subsection 1 of section 33-24-02-06 (except to the extent they are referred to in sections 33-24-05-600 through 33-24-05-689 or sections 33-24-05-201 through 33-24-05-209 and sections 33-24-05-235 through 33-24-05-249, or sections 33-24-05-525 through 33-24-05-549).
 - c. A generator accumulating waste onsite in compliance with section 33-24-03-12.
 - d. A farmer disposing of pesticide containers from the farmer's own use in compliance with section 33-24-03-40.

- e. The owner or operator of a totally enclosed treatment facility, as defined in section 33-24-01-04.
 - f. The owner or operator of an elementary neutralization unit or a wastewater treatment unit as defined in section 33-24-01-04, provided that if the owner or operator is diluting hazardous ignitable (D001) wastes (other than the D001 high total organic carbon subcategory defined in section 33-24-05-280, table treatment standards for hazardous wastes, or reactive (D003) waste, to remove the characteristic before land disposal, the owner or operator must comply with the requirements set out in subsection 2 of section 33-24-05-08.
9. Immediate response activities.
- (1) Except as provided in paragraph 2, a person engaged in treatment or containment activities during immediate response to any of the following situations:
 - (a) A discharge of hazardous waste.
 - (b) An imminent and substantial threat of a discharge of hazardous waste.
 - (c) A discharge of material which, when discharged, becomes a hazardous waste.
 - (d) An immediate threat to human health, public safety, property, or the environment, from the known or suspected presence of military munitions, other explosive material, or an explosive device, as determined by an explosive or munitions emergency response specialist as defined in section 33-24-01-04.
 - (2) An owner or operator of a facility otherwise regulated by this chapter shall comply with all applicable requirements of sections 33-24-05-15 through 33-24-05-36.
 - (3) Any person who is covered by paragraph 1 and continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of this chapter and chapters 33-24-06 and 33-24-07.
 - (4) In the case of an explosives or munitions emergency response, if a federal, state, tribal, or local official acting within the scope of that person's official responsibilities, or an explosives or munitions emergency response specialist, determines that immediate removal of the material or waste

is necessary to protect human health or the environment, that official or specialist may authorize the removal of the material or waste by transporters who do not have identification numbers and without the preparation of a manifest. In the case of emergencies involving military munitions, the responding military emergency response specialist's organizational unit must retain records for three years identifying the dates of the response, the responsible persons responding, the type and description of material addressed, and its disposition.

- h. A transporter storing manifested shipments of hazardous waste in containers meeting the requirements of section 33-24-03-08 at a transfer facility for a period of ten days or less.
- i. The addition of absorbent material to waste in a container (as defined in section 33-24-01-04) or the addition of waste to absorbent material in a container provided that these actions occur at the time waste is first placed in a container and subsection 2 of section 33-24-05-08 and sections 33-24-05-90 and 33-24-05-91 are complied with.
- j. Universal waste handlers and universal waste transporters (as defined in section 33-24-01-04) handling the wastes listed below. These handlers are subject to regulation under sections 33-24-05-701 through 33-24-05-765, when handling the below listed universal wastes:
 - (1) Batteries as described in section 33-24-05-702;
 - (2) Pesticides as described in section 33-24-05-703; and
 - (3) Mercury containing devices as described in section 33-24-05-704; and
 - (4) Lamps as described in section 33-24-05-705.
- 7. The requirements of this chapter apply to owners or operators of all facilities which treat, store, or dispose of hazardous wastes referred to in sections 33-24-05-250 through 33-24-05-300.
- 8. Subsection 2 of section 33-24-05-09 applies only to facilities subject to regulation under sections 33-24-05-89 through 33-24-05-317 and sections 33-24-05-300 through 33-24-05-303.
- 9. Section 33-24-05-825 identifies when the requirements of this part apply to the storage of military munitions classified as solid waste under section 33-24-05-822. The treatment and disposal of hazardous waste

military munitions are subject to the applicable permitting, procedural, and technical standards in article 33-24.

10. The requirements of sections 33-24-05-02 through 33-24-05-36 and section 33-24-05-58 do not apply to remediation waste management sites. (However, some remediation waste management sites may be a part of a facility that is subject to a traditional hazardous waste permit because the facility is also treating, storing, or disposing of hazardous wastes that are not remediation wastes. In these cases, sections 33-24-05-02 through 33-24-05-36 and section 33-24-05-58 do apply to the facility subject to the traditional hazardous waste permit.) Instead of the requirements of sections 33-24-05-02 through 33-24-05-36, owners or operators of remediation waste management sites must:
 - a. Obtain an identification number by applying to the department using environmental protection agency form 8700-12, or equivalent state form;
 - b. Obtain a detailed chemical and physical analysis of a representative sample of the hazardous remediation wastes to be managed at the site. At a minimum, the analysis must contain all of the information which must be known to treat, store, or dispose of the waste according to chapter 33-24-05, and must be kept accurate and up to date;
 - c. Prevent people who are unaware of the danger from entering, and minimize the possibility for unauthorized people or livestock to enter onto the active portion of the remediation waste management site, unless the owner or operator can demonstrate to the department that:
 - (1) Physical contact with the waste, structures, or equipment within the active portion of the remediation waste management site will not injure people or livestock who may enter the active portion of the remediation waste management site; and
 - (2) Disturbance of the waste or equipment by people or livestock who enter onto the active portion of the remediation waste management site will not cause a violation of the requirements of this article;
 - d. Inspect the remediation waste management site for malfunctions, deterioration, operator errors, and discharges that may be causing, or may lead to, a release of hazardous waste constituents to the environment, or a threat to human health. The owner or operator must conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment, and must remedy the problem before it leads to a

human health or environmental hazard. If a hazard is imminent or has already occurred, the owner or operator must take remedial action immediately;

- e. Provide personnel with classroom or on-the-job training on how to perform their duties in a way that ensures the remediation waste management site complies with the requirements of sections 33-24-05-01 through 33-24-05-190, 3-24-05-300 through 33-24-05-524, 33-24-05-550 through 33-24-05-559, and 33-24-05-800 through 33-24-05-819, and on how to respond effectively to emergencies;
- f. Take precautions to prevent accidental ignition or reaction of ignitable or reactive waste, and prevent threats to human health and the environment from ignitable, reactive, and incompatible waste;
- g. For remediation waste management sites subject to regulation under sections 33-24-05-89 through 33-24-05-190 and sections 33-24-05-300 through 33-24-05-303, the owner or operator must design, construct, operate, and maintain a unit within a one hundred-year floodplain to prevent washout of any hazardous waste by a one hundred-year flood, unless the owner or operator can meet the demonstration of subsection 2 of section 33-24-05-09;
- h. Not place any noncontainerized or bulk liquid hazardous waste in any salt dome formation, salt bed formation, or underground mine or cave;
- i. Develop and maintain a construction quality assurance program for all surface impoundments, waste piles, and landfill units that are required to comply with subsections 3 and 4 of section 33-24-05-119, subsections 3 and 4 of section 33-24-05-131, and subsections 3 and 4 of section 33-24-05-177 at the remediation waste management site, according to the requirements of section 33-24-05-10;
- j. Develop and maintain procedures to prevent accidents and a contingency and emergency plan to control accidents that occur. These procedures must address proper design, construction, maintenance, and operation of remediation waste management units at the site. The goal of the plan must be to minimize the possibility of, and the hazards from a fire, explosion, or any unplanned sudden or nonsudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water that could threaten human health or the environment. The plan must explain specifically how to treat, store, and dispose of the hazardous remediation waste in question, and must be implemented immediately whenever a fire, explosion, or release

of hazardous waste or hazardous waste constituents which could threaten human health or the environment:

- k. Designate at least one employee, either on the facility premises or on call (that is, available to respond to an emergency by reaching the facility quickly), to coordinate all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan;
- l. Develop, maintain, and implement a plan to meet the requirements in subdivisions b through f, i, and j; and
- m. Maintain records documenting compliance with subdivisions a through l.

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

33-24-05-06. General inspection requirements.

1. The owner or operator shall inspect the facility for malfunctions and deterioration, operator errors, and discharges which may be causing or may lead to release of hazardous waste constituents to the environment, or a threat to human health. The owner or operator shall conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment.
2. Schedule requirements.
 - a. The owner or operator shall develop and follow a written schedule for inspecting all monitoring equipment, safety, and emergency equipment, security devices, and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting, or responding to environmental or human health hazards.
 - b. The owner or operator shall keep this schedule at the facility.
 - c. The schedule must identify the types of problems, for example, malfunctions or deterioration, which are to be looked for during the inspection, for example, inoperative sump pump, leaking fitting, eroding dike, etc.

- d. The frequency of inspection may vary for the items on the schedule. However, it the frequency should be based on the rate of possible deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, malfunction, or any operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use. At a minimum, the inspection schedule must include the ~~terms~~ items and frequencies called for in sections 33-24-05-93, 33-24-05-106, 33-24-05-108, 33-24-05-120, 33-24-05-132, 33-24-05-150, 33-24-05-165, 33-24-05-178, 33-24-05-302, 33-24-05-403, 33-24-05-422, 33-24-05-423, 33-24-05-428, ~~33-24-05-458, and 33-24-05-461.2~~ and 33-24-05-453 through 33-24-05-459, where applicable.
3. The owner or operator shall remedy any deterioration or malfunction of equipment or structures which the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action must be taken immediately.
4. The owner or operator shall record inspections in an inspection log or summary. The owner or operator shall keep these records for at least three years from the date of inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

History: Effective January 1, 1984; amended effective 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

33-24-05-29. Amendment of contingency plan. The contingency plan must be reviewed, and immediately amended, if necessary, whenever:

1. The facility permit is revised;
2. The plan fails in an emergency;
3. The facility changes in its design, construction, operation, maintenance, or other circumstances, in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;
4. The list of emergency coordinators changes; ~~or~~
5. The list of emergency equipment changes; or

6. Applicable regulations are revised.

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

33-24-05-37. Applicability of manifest system, recordkeeping, and reporting requirements. Sections 33-24-05-37 through 33-24-05-46 apply to owners and operators of both onsite and offsite facilities except as section 33-24-05-01 provides otherwise. Sections 33-24-05-38, 33-24-05-39, and 33-24-05-43 do not apply to owners and operators of onsite facilities that do not receive any hazardous waste from offsite sources, and to owners and operators of offsite facilities with respect to waste military munitions exempted from manifest requirements under subsection 1 of section 33-24-05-823. Subsection 2 of section 33-24-05-40 only applies to permittees who treat, store, or dispose of hazardous waste onsite where such wastes were generated.

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

General Authority: NDCC 23-20.3-03

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

33-24-05-40. Operating record.

1. The owner or operator shall keep a written operating record at the facility.
2. The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility:
 - a. A description and quantity of each hazardous waste received and the methods and dates of its treatment, storage, or disposal at the facility as required by appendix I.
 - b. The location of each hazardous waste within the facility and the quantity at each location. For disposal facilities, the location and quantity of each hazardous waste must be recorded on a map or diagram of each cell or disposal area. For all facilities, this information must include cross-reference to specific manifest document numbers, if the waste was accompanied by a manifest.
 - c. Records and results of waste analysis and waste determinations performed as specified in sections 33-24-05-04, 33-24-05-08, 33-24-05-145, 33-24-05-183, subsection 1 of section 33-24-05-253, sections 33-24-05-256, 33-24-05-404, 33-24-05-433, and 33-24-05-453.

- d. Summary reports and details of all incidents that require implementing the contingency plan as specified in subsection 10 of section 33-24-05-31.
- e. Records and results of inspections as required by subsection 4 of section 33-24-05-06 (except these data need to be kept only three years).
- f. Monitoring, testing, or analytical data, and corrective action where required by sections 33-24-05-47 through 33-24-05-58, and sections 33-24-05-10, 33-24-05-104, 33-24-05-106, 33-24-05-108, 33-24-05-120, 33-24-05-126, 33-24-05-127, 33-24-05-132, 33-24-05-137, 33-24-05-138, 33-24-05-150, 33-24-05-164, 33-24-05-165, 33-24-05-167, 33-24-05-178, 33-24-05-179, 33-24-05-187, 33-24-05-188, 33-24-05-302, subsections 3 through 6 of section 33-24-05-404, section 33-24-05-405, subsections 4 through 9 of section 33-24-05-433, sections section 33-24-05-434, 33-24-05-458, and 33-24-05-459 and sections 33-24-05-452 through 33-24-05-460.
- g. For offsite facilities, notices to generators as specified in subsection 2 of section 33-24-05-03.
- h. All closure and postclosure cost estimates under section 33-24-05-76.
- i. A certification by the permittee no less often than annually; that the permittee has a program in place to reduce the volume and toxicity of hazardous waste that is generated to the degree determined by the permittee to be economically practicable; and the proposed method of treatment, storage, or disposal is that practicable method currently available to the permittee which minimizes the present and future threat to human health and the environment.
- j. Records of the quantities and date of placement for each shipment of hazardous waste placed in land disposal units under an extension to the effective date of any land disposal restriction granted pursuant to section 33-24-05-254, a petition pursuant to section 33-24-05-255, ~~or a certification under section 33-24-05-257~~; and the applicable notice required by a generator under subsection 1 of section 33-24-05-256.
- k. For an offsite treatment facility, a copy of the notice, and the certification and demonstration, if applicable, required by the generator or the owner or operator under section 33-24-05-256 ~~or 33-24-05-257.~~
- l. For an onsite treatment facility, the information contained in the notice except the manifest number, and the certification and

demonstration, if applicable, required by the generator or the owner or operator under section 33-24-05-256 ~~or 33-24-05-257~~.

- m. For an offsite land disposal facility, a copy of the notice, and the certification and demonstration, if applicable, required by the generator or the owner or operator of a treatment facility under section 33-24-05-256 ~~or 33-24-05-257, whichever is applicable~~.
- n. For an onsite land disposal facility, the information contained in the notice required by the generator or owner or operator of a treatment facility under section 33-24-05-256, ~~except for the manifest number, and the certification and demonstration, if applicable, required under section 33-24-05-257, whichever is applicable~~.
- o. For an offsite storage facility, a copy of the notice, and the certification and demonstration, if applicable, required by the generator or the owner or operator under section 33-24-05-256 ~~or 33-24-05-257~~.
- p. For an onsite storage facility, the information contained in the notice except the manifest number, and the certification and demonstration, if applicable, required by the generator or the owner or operator under section 33-24-05-256 ~~or 33-24-05-257~~.
- q. Any records required under subdivision m of subsection 10 of section 33-24-05-01.

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

33-24-05-42. Biennial report. The owner or operator shall prepare and submit a single copy of a biennial report to the department by March first of each even-numbered year. The report form and instructions can be obtained from the department's division of waste management and special studies. The biennial report must cover facility activities during the previous calendar year and must include the following information:

1. The identification number, name, and address of the facility.
2. The calendar year covered by the report.
3. For offsite facilities, identification number of each hazardous waste generator from which the facility received a hazardous waste during

the year; for imported shipments, the report must give the name and address of the foreign generator.

4. A description and quantity of each hazardous waste the facility received during the year. For offsite facilities, this information must be listed by identification number of each generator.
5. The method of treatment, storage, or disposal for each hazardous waste.
6. Any ground water monitoring data which the owner or operator is required to collect under section 33-24-05-55, 33-24-05-56, or 33-24-05-57, and which the owner or operator has not otherwise submitted to the department under those sections.
7. The most recent closure and postclosure cost estimate under section 33-24-05-76.
8. For generators who treat, store, or dispose of hazardous waste onsite, a description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated.
9. For generators who treat, store, or dispose of hazardous waste onsite, a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for the years prior to 1984.
10. The certification signed by the owner or operator of the facility or the owner's or operator's authorized representative.

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

33-24-05-44. Additional reports. In addition to submitting the biennial reports and unmanifested waste reports described in sections 33-24-05-42 and 33-24-05-43, the owner or operator shall also report to the department:

1. Releases, fires, and explosions as specified in subsection 10 of section 33-24-05-31.
2. Facility closures specified in section 33-24-05-64.
3. As otherwise required by sections 33-24-05-47 through 33-24-05-58, ~~33-24-05-115~~ 33-24-05-118 through 33-24-05-143, 33-24-05-160 through ~~33-24-05-200~~ 33-24-05-190, and 33-24-05-400 through

~~33-24-05-449, 33-24-05-474, and 33-24-05-560 through 33-24-05-574~~
33-24-05-474.

History: Effective January 1, 1984; amended effective 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

33-24-05-58. Corrective action for solid waste management units.

1. The owner or operator of a facility seeking a permit for the treatment, storage, or disposal of hazardous waste must institute corrective action as necessary to protect human health and the environment for all releases of hazardous waste or constituents from any solid waste management unit at the facility, regardless of the time at which waste was placed in such unit.
2. Corrective action will be specified in the permit in accordance with this section and sections 33-24-05-550 through 33-24-05-559. The permit will contain schedules of compliance for such corrective action (where such corrective action cannot be completed prior to issuance of the permit) and assurances of financial responsibility for completing such corrective action.
3. The owner or operator must implement corrective actions beyond the facility property boundary, where necessary to protect human health and the environment, unless the owner or operator demonstrates to the satisfaction of the department that, despite the owner's or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such actions. The owner or operator is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where offsite access is denied. Onsite measures to address such releases will be determined on a case-by-case basis. Assurances of financial responsibility for such corrective action must be provided.
4. This does not apply to remediation waste management sites unless they are part of a facility subject to a permit for treating, storing, or disposing of hazardous wastes that are not remediation wastes.

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

General Authority: NDCC 23-20.3-03

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

33-24-05-61. Closure plan - Amendment of plan.

1. **Written plan.**

- a. The owner or operator of a hazardous waste management facility shall have a written closure plan. In addition, certain surface impoundments and waste piles from which the owner or operator intends to remove or decontaminate the hazardous waste at partial or final closure are required by paragraph 1 of subdivision a of subsection 3 of section 33-24-05-122 and paragraph 1 of subdivision a of subsection 3 of section 33-24-05-135 to have contingent closure plans. The plan must be submitted with the permit application, in accordance with subdivision m of subsection 2 of section 33-24-06-17, and approved by the department as part of the permit issuance procedure under chapter 33-24-07. In accordance with section 33-24-06-05, the approved closure plan will become a condition of any hazardous waste permit.
 - b. The department's approval of the plan must ensure that the approved closure plan is consistent with sections 33-24-05-60 through 33-24-05-64 and the applicable requirements of sections 33-24-05-47 through 33-24-05-58, 33-24-05-97, 33-24-05-110, 33-24-05-122, 33-24-05-135, 33-24-05-151, 33-24-05-167, 33-24-05-180, 33-24-05-301, and 33-24-05-477. Until final closure is completed and certified in accordance with section 33-24-05-64, a copy of the approved plan and all approved revisions must be furnished to the department upon request, including requests by mail.
2. **Content of plan.** The plan must identify steps necessary to perform partial or final, or both, closure of the facility at any point during its active life. The closure plan must include, at least:
- a. A description of how each hazardous waste management unit at the facility will be closed in accordance with section 33-24-05-60;
 - b. A description of how final closure of the facility will be conducted in accordance with section 33-24-05-60. The description must identify the maximum extent of the operations which will be unclosed during the active life of the facility;
 - c. An estimate of the maximum inventory of hazardous wastes ever onsite over the active life of the facility and a detailed description of the methods to be used during partial closures and final closure, including, but not limited to, methods for removing, transporting, treating, storing, or disposing of all hazardous wastes, and identification of the types of the offsite hazardous waste management units to be used, if applicable;
 - d. A detailed description of the steps needed to remove or decontaminate all hazardous waste residues and contaminated containment system components, equipment, structures, and

soils during partial and final closure, including, but not limited to, procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination required to satisfy the closure performance standards;

- e. A detailed description of other activities necessary during the closure period to ensure that all partial closures and final closures satisfy the closure performance standards, including, but not limited to, ground water monitoring, leachate collection, and run-on and runoff control;
 - f. A schedule for closure of each hazardous waste management unit and for final closure of the facility. The schedule must include, at a minimum, the total time required to close each hazardous waste management unit and the time required for intervening closure activities which will allow tracking of the progress of partial and final closure. (For example, in the case of a landfill unit, estimates of the time required to treat or dispose of all hazardous waste inventory and of the time required to place a final cover must be included.);
 - g. For facilities that use trust funds or establish financial assurance under section 33-24-05-77 and that are expected to close prior to the expiration of the permit, an estimate of the expected year of final closure; and
 - h. A closure cost estimate.
3. **Amendment of plan.** The owner or operator must submit a written notification of, or request for, a permit modification to authorize a change in operating plans, facility design, or the approved closure plan in accordance with the applicable procedures in chapters 33-24-06 and 33-24-07. The written notification or request must include a copy of the amended closure plan for review or approval by the department.
- a. The owner or operator may submit a written notification or request to the department for a permit modification to amend the closure plan at any time prior to the notification of partial or final closure of the facility.
 - b. The owner or operator must submit a written notification of, or request for, a permit modification to authorize a change in the approved closure plan when:
 - (1) Changes in operating plans or facility design affect the closure plan;

- (2) There is a change in the expected year of closure, if applicable; or
 - (3) In conducting partial or final closure activities, unexpected events require a modification of the approved closure plan.
 - c. The owner or operator shall submit a written request for a permit modification, including a copy of the amended closure plan for approval at least sixty days prior to the proposed change in facility design or operation, or no later than sixty days after an unexpected event has occurred which has affected the closure plan. If an unexpected event occurs during the partial or final closure period, the owner or operator shall request a permit modification no later than thirty days after the unexpected event. An owner or operator of a surface impoundment or waste pile that intends to remove all hazardous waste at closure and is not otherwise required to prepare a contingent closure plan under paragraph 1 of subdivision a of subsection 3 of section 33-24-05-122 or paragraph 1 of subdivision a of subsection 3 of section 33-24-05-135 shall submit an amended closure plan to the department no later than sixty days from the date that the owner or operator or department determines that the hazardous waste management unit must be closed as a landfill, subject to the requirements of section 33-24-05-180, or no later than thirty days from that date if the determination is made during partial or final closure. The department will approve, disapprove, or modify this amended plan in accordance with the procedures in chapters 33-24-06 and 33-24-07. In accordance with section 33-24-06-05, the approved closure plan will become a condition of the hazardous waste permit issued.
 - d. The department may request modifications to the plan under the conditions described in subdivision b of subsection 3. The owner or operator shall submit the modified plan within sixty days of the department's request, or within thirty days if the change in facility conditions occurs during partial or final closure. Any modifications requested by the department will be approved in accordance with procedures in chapters 33-24-06 and 33-24-07.
- 4. Notification of partial closure and final closure.**
- a. The owner or operator shall notify the department in writing at least sixty days prior to the date on which the owner or operator expects to begin closure of a surface impoundment, waste pile, land treatment or landfill unit, ~~boiler or industrial furnace~~, or final closure of a facility with such a unit. The owner or operator shall notify the department in writing at least forty-five days prior to the date on which the owner or operator expects to begin final closure of a facility with only treatment or storage tanks, container storage,

or incinerator units to be closed. The owner or operator must notify the department in writing at least forty-five days prior to the date which the owner or operator expects to begin partial or final closure of a boiler or industrial furnace, whichever is earlier.

- b. The date when the owner or operator "expects to begin closure" must be either no later than thirty days after the date on which any hazardous waste management unit receives the known final volume of hazardous wastes or, if there is a reasonable possibility that the hazardous waste management unit will receive additional hazardous waste, no later than one year after the date on which the unit received the most recent volume of hazardous waste. If the owner or operator of a hazardous waste management unit can demonstrate to the department that the hazardous waste management unit or facility has the capacity to receive additional hazardous wastes and the owner or operator has taken and will continue to take, all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements, the department may approve an extension to this one-year limit.
 - c. If the facility's permit is terminated, or if the facility is otherwise ordered, by judicial decree or final order under North Dakota Century Code section 23-20.3-08, to cease receiving hazardous waste or to close, then the requirements of this section do not apply. However, the owner or operator shall close the facility in accordance with the deadlines established in section 33-24-05-62.
5. **Removal of wastes and decontamination or dismantling of equipment.** Nothing in this section precludes the owner or operator from removing hazardous wastes and decontaminating or dismantling equipment in accordance with the approved partial or final closure plan at any time before or after notification of partial or final closure.

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

33-24-05-62. Closure - Time allowed for closure.

1. Within ninety days after receiving the final volume of hazardous wastes at a hazardous waste management unit or facility, the owner or operator shall treat, remove from the unit or facility, or dispose of onsite, all hazardous wastes in accordance with the approved closure plan. The department may approve a longer period if the owner or operator complies with all applicable requirements for requesting a modification to the permit and demonstrates that:

- ~~a.~~ ~~One~~ one or both of the following ~~paragraphs~~ subdivisions apply:
- ~~(1)~~ a. The activities required to comply with this section will, of necessity, take longer than ninety days to complete; or
- ~~(2)~~ b. All of the following ~~subparagraphs~~ apply:
- ~~(a)~~ (1) The hazardous waste management unit or facility has the capacity to receive additional hazardous waste;
- ~~(b)~~ (2) There is a reasonable likelihood that the owner or operator or another person will recommence operation of the hazardous waste management unit or the facility within one year;
- ~~(c)~~ (3) Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and
- ~~(d)~~ (4) The owner or operator has taken and will continue to take all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements.
2. The owner or operator shall complete partial and final closure activities in accordance with the approved closure plan and within one hundred eighty days after receiving the final volume of hazardous wastes at the hazardous waste management unit or facility. The department may approve an extension to the closure period if the owner or operator complies with all applicable requirements for requesting a modification to the permit and demonstrates that:
- ~~a.~~ ~~One~~ one or both of the following ~~paragraphs~~ subdivisions apply:
- ~~(1)~~ a. The partial or final closure activities will, of necessity, take longer than one hundred eighty days to complete; or
- ~~(2)~~ b. All the following ~~subparagraphs~~ apply:
- ~~(a)~~ (1) The hazardous waste management unit or facility has the capacity to receive additional hazardous waste;
- ~~(b)~~ (2) There is reasonable likelihood that the owner or operator or another person will recommence operation of the hazardous waste management unit or the facility within one year;
- ~~(c)~~ (3) Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and

- ~~(d)~~ (4) The owner or operator has taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed but not operating hazardous waste management unit or facility including compliance with all applicable permit requirements.
3. The demonstrations referred to in subsections 1 and 2 of section 33-24-05-62 must be made as follows: The demonstrations in subsection 1 must be made at least thirty days prior to expiration of the ninety-day period in subsection 1; and the demonstration in subsection 2 must be made at least thirty days prior to the expiration of the one hundred eighty-day period in subsection 2.

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

33-24-05-81. Wording of the instruments.

1. Trust agreement and certification of acknowledgment.
 - a. A trust agreement for a trust fund as specified in section 33-24-05-77 must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

TRUST AGREEMENT, the "AGREEMENT" entered into as of [date] by and between [name of the owner or operator] a [name of state] [insert "corporation", "partnership", "association", or "proprietorship"], the "GRANTOR", and [name of corporate trustee], [insert "incorporated in the state of _____" or "a national bank"], the "TRUSTEE".

Whereas, the North Dakota State Department of Health, "DEPARTMENT" a regulatory agency of the state of North Dakota, has established certain regulations applicable to the GRANTOR requiring that an owner or operator of a hazardous waste management facility shall provide assurance that funds will be available when needed for closure or postclosure, or both, care of the facility,

Whereas, the GRANTOR has elected to establish a trust to provide all or part of such financial assurance for the facilities identified herein,

Whereas, the GRANTOR acting through its duly authorized officers has selected the TRUSTEE to be the TRUSTEE under this AGREEMENT and the TRUSTEE is willing to act as TRUSTEE,

Now, therefore, the GRANTOR and the TRUSTEE agree as follows:

Section 1. Definitions. As used in this AGREEMENT:

- (a) The term GRANTOR means the owner or operator who enters into this AGREEMENT and any successors or assigns of the GRANTOR.
- (b) The term TRUSTEE means the TRUSTEE who enters into this AGREEMENT and any successor TRUSTEE.

Section 2. Identification of Facilities and Cost Estimate. This AGREEMENT pertains to the facilities and cost estimates identified on attached Schedule A [on Schedule A for each facility list the identification number, name, and the current closure or postclosure, or both, cost estimates or portions thereof for which financial assurance is demonstrated by this AGREEMENT].

Section 3. Establishment of FUND. The GRANTOR and the TRUSTEE hereby establish a trust fund, the FUND, for the benefit of the DEPARTMENT. The GRANTOR and the TRUSTEE intend that no third party have access to the FUND, except as herein provided. The FUND is established initially as consisting of the property which is acceptable to the TRUSTEE and described in Schedule B attached hereto. Such property and any other property subsequently transferred to the TRUSTEE is referred to as the FUND, together with all earnings and profits thereon, less any payments or distributions made by the TRUSTEE pursuant to this AGREEMENT. The FUND must be held by the TRUSTEE, IN TRUST, as herein provided. The TRUSTEE is not responsible, nor may it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the GRANTOR any payments necessary to discharge any liabilities of the GRANTOR established by the DEPARTMENT.

Section 4. Payment for Closure and Postclosure Care. The TRUSTEE shall make payments from the FUND as the DEPARTMENT shall direct, in writing, to provide for the payment of the cost of closure, and or postclosure care of the facilities covered by this AGREEMENT. The TRUSTEE shall reimburse the GRANTOR or other persons as specified by the DEPARTMENT from the FUND for closure and postclosure expenditures in such amounts as the DEPARTMENT shall direct in writing. In addition, the TRUSTEE shall refund to the GRANTOR such amounts as the DEPARTMENT specifies in writing. Upon refund such funds no longer constitute part of the FUND as defined herein.

Section 5. Payments Comprising the FUND. Payments made to the TRUSTEE for the FUND must consist of cash or securities acceptable to the TRUSTEE.

Section 6. TRUSTEE Management. The TRUSTEE shall invest and reinvest the ~~principle~~ principal and income of the FUND and keep the FUND invested as a single FUND without distinction between ~~principle~~ principal and income in accordance with general investment policies and guidelines which the GRANTOR may communicate in writing to the TRUSTEE from time to time, subject however to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the FUND, the TRUSTEE shall discharge his the trustee's duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

- (a) Securities or other obligations of the GRANTOR or any other owner or operator of the facilities or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2(a), may not be acquired or held unless they are securities or other obligations of a federal or state government;
- (b) The TRUSTEE is authorized to invest the FUND in time or demand deposits of the TRUSTEE, to the extent insured by an agency of the federal or state government; and
- (c) The TRUSTEE is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The TRUSTEE is expressly authorized in its discretion:

- (a) To transfer from time to time any or all of the assets of the FUND to any common, commingled, or collective trust fund created by the TRUSTEE in which the FUND is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and
- (b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which

may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the TRUSTEE. The TRUSTEE may vote such shares in its discretion.

Section 8. Express Powers of TRUSTEE. Without, in any way, eliminating the powers and discretions conferred upon the TRUSTEE by the other provisions of this AGREEMENT or by law, the TRUSTEE is expressly authorized and empowered:

- (a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the TRUSTEE is bound to see the application of the purchase money or to inquire into the validity or expediency of any such sale or disposition;
- (b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;
- (c) To register any securities held in the FUND in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the TRUSTEE in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a federal reserve bank, but the books and records of the TRUSTEE must at all times show that all such securities are part of the FUND;
- (d) To deposit any cash in the FUND in interest-bearing accounts maintained or savings certificates issued by the TRUSTEE, in its separate capacity, or in any other banking institution affiliated with the TRUSTEE to the extent insured by an agency of the federal or state government; and
- (e) To compromise or otherwise adjust all claims in favor of or against the FUND.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the FUND and all brokerage commissions incurred by the FUND shall be paid from the FUND. All other expenses incurred by the TRUSTEE in connection with the administration of this TRUST, including fees for legal services rendered to the TRUSTEE, the compensation of the TRUSTEE to the extent not paid directly by the GRANTOR, and all other proper charges and disbursements of the TRUSTEE, must be paid from the FUND.

Section 10. Annual Valuation. The TRUSTEE shall annually, at least thirty days prior to the anniversary date of establishment of the FUND, furnish to the GRANTOR and to the DEPARTMENT a statement confirming the value of the TRUST. Any securities in the FUND must be valued at market value as of no more than sixty days prior to the anniversary date of establishment of the FUND. The failure of the GRANTOR to object in writing to the TRUSTEE within ninety days after the statement has been furnished to the GRANTOR and the DEPARTMENT, constitutes a conclusively binding assent by the GRANTOR barring the GRANTOR from asserting any claim or liability against the TRUSTEE with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The TRUSTEE may from time to time consult with counsel, who may be counsel to the GRANTOR, with respect to any question arising as to construction of this AGREEMENT or any action to be taken hereunder. The TRUSTEE shall be fully protected to the extent permitted by law in acting upon the advice of counsel.

Section 12. TRUSTEE Compensation. The TRUSTEE is entitled to reasonable compensation for its services as agreed upon in writing from time to time with the GRANTOR.

Section 13. Successor TRUSTEE. The TRUSTEE may resign or the GRANTOR may replace the TRUSTEE, but such resignation or replacement is not effective until the GRANTOR has appointed a successor TRUSTEE and this successor accepts the appointment. The successor TRUSTEE shall have the same powers and duties as those conferred upon the TRUSTEE hereunder. Upon the successor TRUSTEE'S acceptance of the appointment, the TRUSTEE shall assign, transfer, and pay over to the successor TRUSTEE the funds and properties then constituting the FUND. If for any reason, the GRANTOR cannot or does not act in the event of the resignation of the TRUSTEE, the TRUSTEE may apply to a court of competent jurisdiction for the appointment of a successor TRUSTEE or for instructions. The successor TRUSTEE shall specify the date on which it assumes administration of the TRUST in a writing sent to the GRANTOR, the DEPARTMENT, and the

present TRUSTEE by certified mail ten days before such change becomes effective. Any expenses incurred by the TRUSTEE as a result of any of the acts contemplated by this section must be paid as provided in section 9.

Section 14. Instructions to the TRUSTEE. All orders, requests, and instructions by the GRANTOR to the TRUSTEE must be in writing, signed by such persons as are designated in the attached Exhibit A, or such other designees as the GRANTOR may designate by amendment to Exhibit A. The TRUSTEE shall be fully protected in acting without inquiry in accordance with the GRANTOR'S orders, requests, and instructions. All orders, requests, and instructions by the DEPARTMENT to the TRUSTEE must be in writing, signed by an authorized DEPARTMENT representative and the TRUSTEE shall act and be fully protected in acting in accordance with such orders, requests, and instructions. The TRUSTEE shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the GRANTOR or the DEPARTMENT hereunder has occurred. The TRUSTEE shall have no duty to act in the absence of such orders, requests, and instructions from the GRANTOR or the DEPARTMENT, or both, except as provided for herein.

Section 15. Notice of Nonpayment. The TRUSTEE shall notify the GRANTOR and the DEPARTMENT by certified mail within ten days following the expiration of the thirty-day period after the anniversary of the establishment of the TRUST if no payment is received from the GRANTOR during that period. After the pay-in period is completed, the TRUSTEE is not required to send a notice of nonpayment.

Section 16. Amendment of AGREEMENT. This AGREEMENT may be amended by an instrument in writing executed by the GRANTOR, the TRUSTEE and the DEPARTMENT, or by the TRUSTEE and the DEPARTMENT, if the GRANTOR ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this AGREEMENT as provided in section 16, this TRUST is irrevocable and continues until terminated at the written AGREEMENT of the GRANTOR, the TRUSTEE, and the DEPARTMENT, or by the TRUSTEE and the DEPARTMENT, if the GRANTOR ceases to exist. Upon termination of the TRUST, all remaining trust property, less final trust administration expenses, must be delivered to the GRANTOR.

Section 18. Immunity and Indemnification. The TRUSTEE may not incur personal liability of any nature in connection with

any act or omission made in good faith in the administration of this TRUST or in carrying out any directions by the GRANTOR or the DEPARTMENT issued in accordance with this AGREEMENT. The TRUSTEE must be indemnified and saved harmless by the GRANTOR or from the trust fund, or both, from and against any personal liability to which the TRUSTEE may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the GRANTOR fails to provide such defense.

Section 19. Choice of Law. This AGREEMENT must be administered, construed, and enforced according to the laws of the state of {North Dakota}.

Section 20. Interpretation. As used in this AGREEMENT, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this AGREEMENT do not affect the interpretation or the legal efficacy of this AGREEMENT.

In Witness Whereof the parties have caused this AGREEMENT to be executed by their respective officers duly authorized and their corporate seals to be hereunto fixed and attested as of the date first above written: The parties below certify that the wording of this AGREEMENT is identical to the wording specified in subdivision a of subsection 1 of North Dakota Administrative Code section 33-24-05-81 as such regulation was constituted on the date first above written.

[Signature of GRANTOR]

[Title]

[Attest:]

[Title]

[Seal]

[Signature of TRUSTEE]

[Attest:]

[Title]

[Seal]

- b. The following is an example of the certification of acknowledgment which must accompany the TRUST AGREEMENT for a trust fund as specified in subsection 1 of section 33-24-05-77.

State of _____

County of _____

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

[Signature of notary public]

2. A surety bond guaranteeing payment into a trust fund as specified in subsection 2 of section 33-24-05-77 must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

FINANCIAL GUARANTEE BOND

Date bond executed: _____

Effective date: _____

Principal: [legal name and business address of owner or operator]

Type of organization: [insert "individual", "joint venture", "partnership", or "corporation"]

State of incorporation: _____

Surety(ies): [name(s) and business address(es)]

Identification number, name, address, and closure or postclosure, or both, amount for each facility guaranteed by this bond [indicate closure and postclosure amounts separately]:

Total penal sum of bond: \$_____

Surety's bond number: _____

Know all persons by these presents that we the PRINCIPAL and SURETY(IES) hereto are firmly bound to the North Dakota State Department of Health (hereinafter called the DEPARTMENT) in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors and assignors jointly and severally: provided that where the SURETY(IES) are corporations acting as cosureties, we, the SURETIES, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each SURETY binds itself, jointly and severally with the PRINCIPAL, for the payment of such sum only as is set forth opposite the name of such SURETY, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said PRINCIPAL is required under North Dakota Century Code chapter 23-20.3 to have a permit in order to own or operate each hazardous waste management facility identified above, and

Whereas said PRINCIPAL is required to provide financial assurance for closure or closure and postclosure care as a condition of the permit, and

Whereas said PRINCIPAL shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, Therefore, the conditions of the obligation are such that if the PRINCIPAL shall faithfully, before the beginning of final closure of each facility identified above, fund the standby trust fund in the amounts identified above for the facility,

Or, if the PRINCIPAL shall fund the standby trust fund in such amounts within fifteen days after an order to begin closure is issued by the DEPARTMENT or a state or other court of competent jurisdiction,

Or, if the PRINCIPAL shall provide alternate financial assurance as specified in North Dakota Administrative Code chapter 33-24-05, as applicable, and obtain the DEPARTMENT'S written approval of such assurance within ninety days after the date of notice of cancellation is received by both the PRINCIPAL and the DEPARTMENT from the SURETY(IES), then this obligation shall be null and void, otherwise it is to remain in full force and effect.

The SURETY(IES) shall become liable on this bond obligation only when the PRINCIPAL has failed to fulfill the conditions described above. Upon notification by the DEPARTMENT that the PRINCIPAL has failed to perform as guaranteed by this bond, the SURETY(IES) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the DEPARTMENT.

The liability of the SURETY(IES) shall not be discharged by any payment or any succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the SURETY(IES) hereunder exceed the amount of said penal sum.

The SURETY(IES) may cancel the bond by sending notice of cancellation by certified mail to the PRINCIPAL and to the DEPARTMENT, provided, however, that cancellation shall not occur during the one hundred twenty days beginning on the date of receipt of the notice of cancellation by both the PRINCIPAL and the DEPARTMENT as evidenced by the return receipts.

The PRINCIPAL may terminate this bond by sending written notice to the SURETY(IES) provided, however, that no such notice shall become effective until the SURETY(IES) receive(s) written authorization for termination of the bond by the DEPARTMENT.

[The following paragraph is an optional rider that may be included, but is not required]

The PRINCIPAL and SURETY(IES) hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new closure or postclosure, or both, amount, provided that the penal sum does not increase by more than twenty percent in any one year, and no decrease in the penal sum takes place without the written permission of the DEPARTMENT.

In witness whereof, the PRINCIPAL and SURETY(IES) have executed this financial guarantee bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the PRINCIPAL and SURETY(IES) and that the wording of this surety bond is identical to the wording specified in subsection 2 of North Dakota Administrative Code section 33-24-05-81 as such rule was constituted on the date this bond was executed.

PRINCIPAL

[Signature(s)]

[Name(s)]

[Title(s)]

[Corporate seal]

CORPORATE SURETY(IES)

[Name and address]

State of Incorporation: _____

Liability limit: \$ _____

[Signature(s)]

[Name(s) and Title(s)]

[Corporate seal]

[For every cosurety, provide signature(s), corporate seal, and other information in the same manner as for surety above.]

Bond premium: \$ _____

3. A surety bond guaranteeing performance of closure or postclosure care as specified in subsection 3 of section 33-24-05-77 must be worded as follows, except that the instructions in brackets are to be replaced with the relevant information and the brackets deleted:

PERFORMANCE BOND

Date bond executed: _____

Effective Date: _____

PRINCIPAL: [Legal name and business address of owner or operator]

Type of organization: [Insert "Individual", "joint venture", "partnership", or "corporation"]

State of incorporation: _____

SURETY(IES): [Name(s) and business address(es)]

Identification number, name, address and closure or postclosure, or both, amount(s) for each facility guaranteed by this bond.

[Indicate closure and postclosure amount separately]:

Total penal sum of bond: _____

Surety's bond number: _____

Know all persons by these presents, that we the PRINCIPAL and SURETY(IES) hereto are firmly bound to the North Dakota State Department of Health (hereinafter called the DEPARTMENT), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors and assigns jointly and severally: Provided that, where the SURETY(IES) are corporations acting as cosureties, we the SURETIES bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action

or actions against any or all of us and for all other purposes each SURETY binds itself jointly and severally with the PRINCIPAL for the payment of such sum only as is set forth opposite the name of each SURETY, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said PRINCIPAL is required under North Dakota Century Code chapter 23-20.3 to have a permit to own or operate each hazardous waste management facility identified above, and

Whereas said PRINCIPAL is required to provide financial assurance for closure, or closure and postclosure care as a condition of the permit, and

Whereas said PRINCIPAL shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, Therefore, the conditions of this obligation are that if the PRINCIPAL shall faithfully perform closure, when required to do so, of each facility for which this bond guarantees closure, in accordance with the closure plan and other requirements of the permit as such plan and permit may be amended pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended.

And if the PRINCIPAL shall faithfully perform postclosure care of each facility for which this bond guarantees postclosure care, in accordance with the postclosure plan and other requirements of the permit as such plan and permit may be amended pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended,

Or, if the PRINCIPAL shall provide alternate financial assurance as specified in North Dakota Administrative Code chapter 33-24-05 and obtain the DEPARTMENT'S written approval of such assurance within ninety days after the date notice of cancellation is received by both the PRINCIPAL and the DEPARTMENT from the SURETY(IES) then this obligation shall be null and void, otherwise it is to remain in full force and effect.

The SURETY(IES) shall become liable on this bond obligation only when the PRINCIPAL has failed to fulfill the conditions described above.

Upon notification by the DEPARTMENT that the PRINCIPAL has been found in violation of the closure requirements of North Dakota Administrative Code chapter 33-24-05 for a facility for which this bond guarantees performance of closure, the SURETY(IES) shall either

perform closure in accordance with the closure plan and other permit requirements or place the closure amount guaranteed for the facility into the standby trust fund as directed by the DEPARTMENT.

Upon notification by the DEPARTMENT that the PRINCIPAL has been found in violation of the postclosure requirements of North Dakota Administrative Code chapter 33-24-05 for a facility for which this bond guarantees performance of postclosure care, the SURETY(IES) shall either perform postclosure care in accordance with the postclosure plan and other permit requirements or place the postclosure amount guaranteed for the facility into a standby trust fund as directed by the DEPARTMENT.

Upon notification by the DEPARTMENT that the PRINCIPAL has failed to provide alternate financial assurance as specified in North Dakota Administrative Code chapter 33-24-05 and obtain written approval of such assurance from the DEPARTMENT during the ninety days following receipt by both the PRINCIPAL and the DEPARTMENT of a notice of cancellation of the bond, the SURETY(IES) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the DEPARTMENT.

The SURETY(IES) hereby waive(s) notification of amendments to closure plans, permits, applicable laws, statutes, rules, and regulations and agree(s) that no such amendment shall in any way alleviate its (their) obligation on this bond.

The liability of the SURETY(IES) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the SURETY(IES) hereunder exceed the amount of said penal sum.

The SURETY(IES) may cancel the bond by sending the notice of cancellation by certified mail to the PRINCIPAL and to the DEPARTMENT, provided, however, that cancellation shall not occur during the one hundred twenty days beginning on the date of receipt of the notice of cancellation by both the PRINCIPAL and the DEPARTMENT as evidenced by the return receipts.

The PRINCIPAL may terminate this bond by sending written notice to the SURETY(IES) provided, however, that no such notice shall become effective until the SURETY(IES) receive(s) written authorization for termination of the bond by the DEPARTMENT.

[The following paragraph is an optional rider that may be included, but is not required].

PRINCIPAL and SURETY(IES) hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new closure or postclosure, or both, amount, provided that the penal sum does not increase by more than twenty percent in any one year, and no decrease in the penal sum takes place without the written permission of the DEPARTMENT.

In Witness Whereof, the PRINCIPAL and SURETY(IES) have executed this performance bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the PRINCIPAL and the SURETY(IES) and that the wording of this surety bond is identical to the wording specified in subsection 3 of North Dakota Administrative Code section 33-24-05-81 as such rule was constituted on the date this bond was executed.

PRINCIPAL
[Signature(s)]
[Name(s)]
[Title(s)]
[Corporate Seal]

[CORPORATE SURETY(IES)]
[Name and Address]
State of Incorporation: _____
Liability Limit: \$ _____
[Signature(s)]
[Name(s) and Title(s)]
Corporate Seal:
[For every cosurety, provide signature(s), corporate seal, and other information in the same manner as for surety above.]

Bond Premium: \$ _____

4. A letter of credit as specified in subsection 4 of section 33-24-05-77 must be worded as follows except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

IRREVOCABLE STANDBY LETTER OF CREDIT

Chief, Environmental Health Section North Dakota State Department of Health

Dear Sir or Madam:

We hereby establish our Irrevocable Standby Letter of Credit Number _____ in your favor, at the request and for the account of [owner's or operator's name and address] up to the aggregate amount of [in words]

United States Dollars \$ _____, available upon presentation by you of

- (1) You sight draft bearing reference to this letter of credit number _____, and
- (2) Your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued under authority of North Dakota Century Code chapter 23-20.3".

This letter of credit is effective as of [date] and shall expire on [date] at least one year later, but such expiration date shall be automatically extended for a period of [at least one year] on [date] and on each successive expiration date, unless, at least one hundred twenty days before the current expiration date, we notify both you and [owner's or operator's name] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your sight draft for one hundred twenty days after the date of receipt by both you and [owner's or operator's name], as shown on the signed return receipts.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of [owner's or operator's name] in accordance with your instructions.

We certify that the wording of this letter of credit is identical to the wording specified in subsection 4 of North Dakota Administrative Code section 33-24-05-81 as such rule was constituted on the date shown immediately below.

[Signature(s) and Title(s) of Official(s) of issuing institution] [Date]

This credit is subject to [insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce", or "the Uniform Commercial Code"]

5. A certificate of insurance as specified in subsection 5 of section 33-24-05-77 must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

CERTIFICATE OF INSURANCE FOR CLOSURE OR POSTCLOSURE CARE

Name and address of Insurer (hereinafter called the "INSURER"):

Name and address of Insured (hereinafter called the "INSURED"):

Facilities covered: [List for each facility: the identification number, name, address and amount of insurance for closure or the amount for postclosure care, or both. (These amounts for all facilities covered must cover the face amount shown below.)]

Face amount: _____

Policy Number: _____

Effective Date: _____

The INSURER hereby certifies that it has issued to the INSURED the policy of insurance identified above to provide financial assurance for [insert "closure" or "closure and postclosure care" or "postclosure care"] for the facilities identified above. The INSURER further warrants that such policy conforms in all respects with the requirements of subsection 5 of North Dakota Administrative Code section 33-24-05-77, as applicable and as such regulations were constituted on the date shown immediately below. It is agreed that any provision of the policy inconsistent with such rules is hereby amended to eliminate such inconsistency.

Whenever requested by the North Dakota State Department of Health (DEPARTMENT) the INSURER agrees to furnish to the DEPARTMENT a duplicate original of the policy listed above, including all endorsements thereon.

I hereby certify that the wording of this certificate is identical to the wording specified in subsection 5 of North Dakota Administrative Code section 33-24-05-81 as such rule was constituted on the date shown immediately below.

[Authorized signature for INSURER]

[Name of person signing]

[Title of person signing]

Signature of witness or notary: _____

[Date]

6. A letter from the chief financial officer, as specified in subsection 6 of section 33-24-05-77, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Letter from Chief Financial Officer

[Address to North Dakota State Department of Health].

I am the chief financial officer of [name and address of firm]. This letter is in support of this firm's use of the financial test to demonstrate financial assurance for closure and/or postclosure costs, as specified in sections 33-24-05-74 through 33-24-05-88.

[Fill out the following five paragraphs regarding facilities and associated cost estimates. If your firm has no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its ~~environmental protection agency~~ identification number, name, address, and current closure and/or postclosure cost estimates. Identify each cost estimate as to whether it is for closure or postclosure care].

1. This firm is the owner or operator of the following facilities for which financial assurance for closure or postclosure care is demonstrated through the financial test specified in sections 33-24-05-74 through 33-24-05-88. The current closure and/or postclosure cost estimates covered by the test are shown for each facility: _____.

2. This firm guarantees, through the guarantee specified in sections 33-24-05-74 through 33-24-05-88, the closure or postclosure care of the following facilities owned or operated by the guaranteed party. The current cost estimates for the closure or postclosure care so guaranteed are shown for each facility: _____. The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee _____; or (3) engaged in the following substantial business relationship with the owner or operator _____, and receiving the following value in consideration of this guarantee _____]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter].

3. In states where the environmental protection agency is not administering the financial requirements of subpart H of 40 CFR part 264 or 265, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the closure or postclosure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in sections

33-24-05-74 through 33-24-05-88. The current closure and/or postclosure cost estimates covered by such a test are shown for each facility: _____.

4. This firm is the owner or operator of the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, postclosure care, is not demonstrated to the DEPARTMENT through the financial test or any other financial assurance mechanism specified in sections 33-24-05-74 through 33-24-05-88 or equivalent or substantially equivalent state mechanisms. The current closure and/or postclosure cost estimates not covered by such financial assurance are shown for each facility: _____.

5. This firm is the owner or operator of the following underground injective control facilities for which financial assurance for plugging and abandonment is required under 40 CFR part 144 ~~of the 40 CFR~~. The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility: _____.

This firm [insert "is required" or "is not required"] to file a form 10K with the securities and exchange commission for the latest fiscal year.

The fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended [date].

[Fill in Alternative I if the criteria of paragraph 1 of subdivision a of subsection 6 of section 33-24-05-77, or of paragraph 1 of subdivision a of subsection 5 of section 33-24-05-77 are used. Fill in Alternative II if the criteria of paragraph 2 of subdivision a of subsection 6 of section 33-24-05-77, or of paragraph 2 of subdivision a of subsection 5 of section 33-24-05-77 are used.]

Alternative I

- | | |
|--|----|
| 1. Sum of current closure and postclosure cost estimate (total of all cost estimates shown in the five paragraphs above). | \$ |
| 2. Total liabilities (if any portion of the closure or postclosure cost estimate is included in total liabilities, you may deduct the amount of that portion from this line and add that amount to lines 3 and 4). | \$ |
| 3. Tangible net worth. | \$ |
| 4. Net worth. | \$ |
| 5. Current assets. | \$ |
| 6. Current liabilities. | \$ |
| 7. Net working capital (line 5 minus line 6). | \$ |

8. The sum of net income plus depreciation, depletion, and amortization. \$
9. Total assets in United States (required only if less than 90% of firm's assets are located in the United States). \$
Yes No
10. Is line 3 at least \$10 million?
11. Is line 3 at least 6 times line 1?
12. Is line 7 at least 6 times line 1?
13. Are at least 90% of firm's assets located in the United States?
If not, complete line 14.
14. Is line 9 at least 6 times line 1?
15. Is line 2 divided by line 4 less than 2.0?
16. Is line 8 divided by line 2 greater than 0.1?
17. Is line 5 divided by line 6 greater than 1.5?

Alternative II

1. Sum of current closure and postclosure cost estimates (total of all cost estimates shown in the five paragraphs above). \$
2. Current bond rating of most recent issuance of this firm and name of rating service. \$
3. Date of issuance of bond. \$
4. Date of maturity of bond. \$
5. Tangible net worth (if any portion of the closure and postclosure cost estimates is included in "total liabilities" on your firm's financial statements, you may add the amount of that portion to this line). \$
6. Total assets in United States (required only if less than 90% of firm's assets are located in the United States). \$
Yes No
7. Is line 5 at least \$10 million?
8. Is line 5 at least 6 times line 1?
9. Are at least 90% of firm's assets located in the United States?
If not, complete line 10.
10. Is line 6 at least 6 times line 1?

I hereby certify that the wording of this letter is identical to the wording specified in subsection 6 of section 33-24-05-81 as such regulations were constituted on the date shown immediately below.

[Signature] _____

[Name] _____

[Title] _____

[Date] _____

7. A letter from the chief financial officer, as specified in subsection 6 of section 33-24-05-79, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

Letter from Chief Financial Officer:

[Address to North Dakota State Department of Health].

I am the chief financial officer of [firm's name and address]. This letter is in support of the use of the financial test to demonstrate financial responsibility for liability coverage [insert "and closure and/or postclosure care" if applicable] as specified in sections 33-24-05-74 through 33-24-05-88.

[Fill out the following paragraphs regarding facilities and liability coverage. If there are no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its ~~environmental protection agency~~ identification number, name, and address.]

The firm identified above is the owner or operator of the following facilities for which liability coverage for [insert "sudden" ~~of~~ or "nonsudden" ~~of~~ or "both sudden and nonsudden"] accidental occurrences is being demonstrated through the financial test specified in sections 33-24-05-74 through 33-24-05-88:

The firm identified above guarantees, through the guarantee specified in sections 33-24-05-74 through 33-24-05-88, liability coverage for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences at the following facilities owned or operated by the following: _____. The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee _____.; or (3) engaged in the following substantial business relationship with the owner or operator _____, and receiving the following value in consideration of this guarantee _____.]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter.]

[If you are using the financial test to demonstrate coverage of both liability and closure and postclosure care, fill in the following five paragraphs regarding facilities and associated closure and postclosure cost estimates. If there are no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its ~~environmental protection agency~~ identification number, name, address, and current closure and/or postclosure cost estimates. Identify each cost estimate as to whether it is for closure or postclosure care.]

1. The firm identified above owns or operates the following facilities for which financial assurance for closure or postclosure care or liability coverage is demonstrated through the financial test specified in sections 33-24-05-74 through 33-24-05-88. The current closure and postclosure cost estimates covered by the test are shown for each facility: _____.

2. The firm identified above guarantees, through the guarantee specified in sections 33-24-05-74 through 33-24-05-88, the closure and postclosure care or liability coverage of the following facilities owned or operated by the guaranteed party. The current cost estimates for closure or postclosure care so guaranteed are shown for each facility: _____.

3. In states where the environmental protection agency is not administering the financial requirements of ~~sections 33-24-05-74 through 33-24-05-88~~ subpart H of 40 CFR parts 264 and 265, this firm is demonstrating financial assurance for the closure or postclosure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in ~~sections 33-24-05-74 through 33-24-05-88~~ subpart H of 40 CFR parts 264 and 265. The current closure or postclosure cost estimates covered by such a test are shown for each facility: _____.

4. The firm identified above owns or operates the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, postclosure care, is not demonstrated to the DEPARTMENT through the financial test or any other financial assurance mechanisms specified in sections 33-24-05-74 through 33-24-05-88 or equivalent or substantially equivalent state mechanisms. The current closure and/or postclosure cost estimates not covered by such financial assurance are shown for each facility: _____.

5. This firm is the owner or operator or guarantor of the following underground injective control facilities for which financial assurance for plugging and abandonment is required under 40 CFR part 144 ~~of the 40-CFR~~ and is assured through a financial test. The current closure

cost estimates as required by 40 CFR 144.62 are shown for each facility: _____.

This firm [insert "is required" or "is not required"] to file a form 10K with the securities and exchange commission for the latest fiscal year.

The fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended [date].

Part A. Liability Coverage for Accidental Occurrences

[Fill in Alternative I if the criteria of paragraph 1 of subdivision a of subsection 6 of section 33-24-05-79 are used. Fill in Alternative II if the criteria of paragraph 2 of subdivision a of subsection 6 of section 33-24-05-79 are used.]

Alternative I

1. Amount of annual aggregate liability coverage to be demonstrated. \$
2. Current assets. \$
3. Current liabilities. \$
4. Net working capital (line 2 minus line 3). \$
5. Tangible net worth. \$
6. If less than 90% of assets are located in the United States, give total United States assets. \$
Yes No
7. Is line 5 at least \$10 million?
8. Is line 4 at least 6 times line 1?
9. Is line 5 at least 6 times line 1?
10. Are at least 90% of assets located in the United States? If not, complete line 11.
11. Is line 6 at least 6 times line 1?

Alternative II

1. Amount of annual aggregate liability coverage to be demonstrated. \$
2. Current bond rating of most recent issuance and name of rating service.
3. Date of issuance of bond.
4. Date of maturity of bond.

5. Tangible net worth. \$
6. Total assets in United States (required only if less than 90% of assets are located in the United States). \$
Yes No
7. Is line 5 at least \$10 million?
8. Is line 5 at least 6 times line 1?
9. Are at least 90% of assets located in the United States? If not, complete line 10.
10. Is line 6 at least 6 times line 1?

[Fill in part B if you are using the financial test to demonstrate assurance of both liability coverage and closure or postclosure care.]

Part B. Closure or Postclosure Care and Liability Coverage

[Fill in Alternative I if the criteria of paragraph 1 of subdivision a of subsection 6 of section 33-24-05-77 and paragraph 1 of subdivision a of subsection 6 of section 33-24-05-79 are used. Fill in Alternative II if the criteria of paragraph 2 of subdivision a of subsection 6 of section 33-24-05-77 and paragraph 2 of subdivision a of subsection 6 of section 33-24-05-79 are used.]

Alternative I

1. Sum of current closure and postclosure cost estimates (total of all cost estimates listed above). \$
2. Amount of annual aggregate liability coverage to be demonstrated. \$
3. Sum of lines 1 and 2. \$
4. Total liabilities (if any portion of your closure or postclosure cost estimates is included in your total liabilities, you may deduct that portion from this line and add that amount to lines 5 and 6). \$
5. Tangible net worth. \$
6. Net worth. \$
7. Current assets. \$
8. Current liabilities. \$
9. Net working capital (line 7 minus line 8). \$
10. The sum of net income plus depreciation, depletion, and amortization. \$
11. Total assets in United States (required only if less than 90% of assets are located in the United States). \$
Yes No

12. Is line 5 at least \$10 million?
13. Is line 5 at least 6 times line 3?
14. Is line 9 at least 6 times line 3?
15. Are at least 90% of assets located in the United States? If not, complete line 16.
16. Is line 11 at least 6 times line 3?
17. Is line 4 divided by line 6 less than 2.0?
18. Is line 10 divided by line 4 greater than 0.1?
19. Is line 7 divided by line 8 greater than 1.5?

Alternative II

1. Sum of current closure and postclosure cost estimates (total of all cost estimates listed above). \$
2. Amount of annual aggregate liability coverage to be demonstrated. \$
3. Sum of lines 1 and 2. \$
4. Current bond rating of most recent issuance and name of rating service.
5. Date of issuance of bond.
6. Date of maturity of bond.
7. Tangible net worth (if any portion of the closure or postclosure cost estimates is included in "total liabilities" on your financial statements you may add that portion to this line). \$
8. Total assets in the United States (required only if less than 90% of assets are located in the United States). \$
Yes No
9. Is line 7 at least \$10 million?
10. Is line 7 at least 6 times line 3?
11. Are at least 90% of assets located in the United States? If not, complete line 12.
12. Is line 8 at least 6 times line 3?

I hereby certify that the wording of this letter is identical to the wording specified in subsection 7 of section 33-24-05-81 as such regulations were constituted on the date shown immediately below.

[Signature] _____

[Name] _____

[Title] _____

[Date] _____

8. Corporate Guarantee

a. A corporate guarantee, as specified in subsection 6 of section 33-24-05-77, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Corporate Guarantee for Closure or Postclosure Care

Guarantee made this [date] by [name of guaranteeing entity], a business corporation organized under the laws of the state of [insert name of state], herein referred to as guarantor. This guarantee is made on behalf of the [owner or operator] of [business address], which is [one of the following: "our subsidiary"; "a subsidiary of [name and address of common parent corporation], of which guarantor is a subsidiary"; or "an entity with which guarantor has a substantial business relationship, as defined in subsection 8 of section 33-24-05-75 to the DEPARTMENT.

Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in subsection 6 of section 33-24-05-77.
2. [Owner or operator] owns or operates the following hazardous waste management facility(ies) covered by this guarantee: [List for each facility: ~~environmental protection agency~~ identification number, name, and address. Indicate for each whether guarantee is for closure, postclosure care, or both.]
3. "Closure plans" and "postclosure plans" as used below refer to the plans maintained as required by sections 33-24-05-59 through 33-24-05-73 for the closure and postclosure care of facilities as identified above.
4. For value received from [owner or operator], guarantor guarantees to the DEPARTMENT that in the event that [owner or operator] fails to perform [insert "closure", "postclosure care", or "closure and postclosure care"] of the above facility(ies) in accordance with the closure or postclosure plans and other permit or interim status requirements when required to do so, the guarantor shall do so or establish a trust fund as specified in sections 33-24-05-74 through 33-24-05-88, as applicable, in the name of [owner or operator] in the amount of the current closure or postclosure cost estimates as specified in sections 33-24-05-74 through 33-24-05-88.

5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within ninety days, by certified mail, notice to the DEPARTMENT and to [owner or operator] that ~~he~~ the guarantor intends to provide alternate financial assurance as specified in sections 33-24-05-74 through 33-24-05-88, as applicable, in the name of [owner or operator]. Within one hundred twenty days after the end of such fiscal year, the guarantor shall establish such financial assurance unless [owner or operator] has done so.

6. The guarantor agrees to notify the DEPARTMENT by certified mail, of a voluntary or involuntary proceeding under title 11 (Bankruptcy), United States Code, naming guarantor as debtor, within ten days after commencement of the proceeding.

7. Guarantor agrees that within thirty days after being notified by the DEPARTMENT of a determination that guarantor no longer meets the financial test criteria or that ~~he~~ the guarantor is disallowed from continuing as a guarantor of closure or postclosure care, ~~he~~ the guarantor shall establish alternate financial assurance as specified in sections 33-24-05-74 through 33-24-05-88, as applicable, in the name of [owner or operator] unless [owner or operator] has done so.

8. Guarantor agrees to remain bound under this guarantee notwithstanding any or all of the following: amendment or modification of the closure or postclosure plan, amendment or modification of the permit, the extension or reduction of the time of performance of closure or postclosure, or any other modification or alteration of an obligation of the owner or operator pursuant to sections 33-24-05-01 through 33-24-05-190, 33-24-05-300 through 33-24-05-524, and 33-24-05-550 through 33-24-05-559.

9. Guarantor agrees to remain bound under this guarantee for as long as [owner or operator] must comply with the applicable financial assurance requirements of sections 33-24-05-74 through 33-24-05-88 for the above-listed facilities, except as provided in paragraph 10 of this AGREEMENT.

10. [Insert the following language if the guarantor is (a) a direct or higher-tier corporate parent, or (b) a firm whose parent corporation is also the parent corporation of the owner or operator]:

Guarantor may terminate this guarantee by sending notice by certified mail to the DEPARTMENT and to [owner or operator], provided that this guarantee may not be terminated unless and until [the owner or operator] obtains, and the DEPARTMENT approves, alternate closure and/or postclosure care coverage complying with section 33-24-05-77.

[Insert the following language if the guarantor is a firm qualifying as a guarantor due to its "substantial business relationship" with its owner or operator.]

Guarantor may terminate this guarantee one hundred twenty days following the receipt of notification, through certified mail, by the DEPARTMENT and by [the owner or operator] obtains, and the DEPARTMENT approves, alternate closure or postclosure, or both, care coverage complying with section 33-24-05-77 or 33-24-05-78 or both.

[Insert the following language if the guarantor is a firm qualifying as a guarantor due to its "substantial business relationship" with its owner or operator.]

Guarantor may terminate this guarantee one hundred twenty days following the receipt of notification, through certified mail, by the DEPARTMENT and by the [owner or operator].

11. Guarantor agrees that if [owner or operator] fails to provide alternate financial assurance as specified in sections 33-24-05-74 through 33-24-05-88, as applicable, and obtain written approval of such assurance from the DEPARTMENT within ninety days after a notice of cancellation by the guarantor is received by the DEPARTMENT from guarantor, guarantor shall provide such alternate financial assurance in the name of [owner or operator].

12. Guarantor expressly waives notice of acceptance of this guarantee by the DEPARTMENT or by [owner or operator]. Guarantor also expressly waives notice of amendments or modifications of the closure and/or postclosure plan and of amendments or modifications of the facility permit(s).

I hereby certify that the wording of this guarantee is identical to the wording specified in subsection 8 of section 33-24-05-81 as such regulations were constituted on the date first above written.

Effective date: _____

[Name of guarantor] _____

[Authorized signature for guarantor] _____

[Name of person signing] _____

[Title of person signing] _____

Signature of witness or notary: _____

b. A guarantee, as specified in subsection 7 of section 33-24-05-79, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Guarantee for Liability Coverage

Guarantee made this [date] by [name of guaranteeing entity], a business corporation organized under the laws of [if incorporated within the United States insert "the state of _____" and insert name of state; if incorporated outside the United States insert the name of the country in which incorporated, the principal place of business within the United States, and the name and address of the registered agent in the state of the principal place of business], herein referred to as guarantor. This guarantee is made on behalf of [owner or operator] of [business address], which is one of the following: "our subsidiary"; "a subsidiary of [name and address of common parent corporation], of which guarantor is a subsidiary"; or "an entity with which guarantor has a substantial business relationship, as defined in subsection 8 of section 33-24-05-75", to any and all third parties who have sustained or may sustain bodily injury or property damage caused by [sudden and/or nonsudden] accidental occurrences arising from operation of the facility(ies) covered by this guarantee.

Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in subsection 7 of section 33-24-05-79.

2. [Owner or operator] owns or operates the following hazardous waste management facility(ies) covered by this guarantee: [List for each facility: ~~environmental protection agency~~ identification number, name, and address; and if guarantor is incorporated outside the United States list the name and address of the guarantor's registered agent in each state.] This corporate guarantee satisfies Resource Conservation Recovery Act third-party liability requirements for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences in above-named owner or operator facilities for coverage in the amount of [insert dollar amount] for each occurrence and [insert dollar amount] annual aggregate.

3. For value received from [owner or operator], guarantor guarantees to any and all third parties who have sustained or may sustain bodily injury or property damage caused by [sudden and/or nonsudden] accidental occurrences arising from operations of the facility(ies) covered by this guarantee that in the event that [owner or operator] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by [sudden and/or nonsudden] accidental occurrences, arising from the operation

of the above-named facilities, or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor will satisfy such judgment(s), award(s), or settlement agreement(s) up to the limits of coverage identified above.

4. Such obligation does not apply to any of the following:

(a) Bodily injury or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert owner or operator] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of [insert owner or operator] arising from, and in the course of, employment by [insert owner or operator]; or

(2) The spouse, child, parent, brother, or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert owner or operator]. This exclusion applies:

(A) Whether [insert owner or operator] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert owner or operator];

(2) Premises that are sold, given away, or abandoned by [insert owner or operator] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert owner or operator];

(4) Personal property in the care, custody, or control of [insert owner or operator];

(5) That particular part of real property on which [insert owner or operator] or any contractors or subcontractors working directly or indirectly on behalf of [insert owner or operator] are performing operations, if the property damage arises out of these operations.

5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within ninety days, by certified mail, notice to the DEPARTMENT and to [owner or operator] that ~~he~~ the guarantor intends to provide alternate liability coverage as specified in section 33-24-05-79, as applicable, in the name of [owner or operator]. Within one hundred twenty days after the end of such fiscal year, the guarantor shall establish such liability coverage unless [owner or operator] has done so.

6. The guarantor agrees to notify the DEPARTMENT by certified mail of a voluntary or involuntary proceeding under title 11 (Bankruptcy), United States Code, naming guarantor as debtor, within ten days after commencement of the proceeding.

7. Guarantor agrees that within thirty days after being notified by the DEPARTMENT of a determination that guarantor no longer meets the financial test criteria or that ~~he~~ the guarantor is disallowed from continuing as a guarantor, ~~he~~ the guarantor shall establish alternate liability coverage as specified in section 33-24-05-79 in the name of [owner or operator], unless [owner or operator] has done so.

8. Guarantor reserves the right to modify this AGREEMENT to take into account amendment or modification of the liability requirements set by section 33-24-05-79, provided that such modification shall become effective only if the DEPARTMENT does not disapprove the modification within thirty days of receipt of notification of the modification.

9. Guarantor agrees to remain bound under this guarantee for so long as [owner or operator] must comply with the applicable requirements of section 33-24-05-79 for the above-listed facility(ies), except as provided in paragraph 10 of this AGREEMENT.

10. [Insert the following language if the guarantor is (a) a direct or higher-tier corporate parent, or (b) a firm whose parent corporation is also the parent corporation of the owner or operator]:

Guarantor may terminate this guarantee by sending notice by certified mail to the DEPARTMENT and to [owner or operator], provided that this guarantee may not be terminated unless and until [the owner or

operator] obtains, and the DEPARTMENT approves, alternate liability coverage complying with section 33-24-05-79.

[Insert the following language if the guarantor is a firm qualifying as a guarantor due to its "substantial business relationship" with the owner or operator]:

Guarantor may terminate this guarantee one hundred twenty days following receipt of notification, through certified mail, by the DEPARTMENT and by [the owner or operator].

11. Guarantor hereby expressly waives notice of acceptance of this guarantee by any party.

12. Guarantor agrees that this guarantee is in addition to and does not affect any other responsibility or liability of the guarantor with respect to the covered facilities.

13. The guarantor shall satisfy a third-party liability claim only on receipt of one of the following documents:

(a) Certification from the principal and the third-party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Certification of Valid Claim

The undersigned, as parties [insert principal] and [insert name and address of third-party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating [Principal's] hazardous waste treatment, storage, or disposal facility should be paid in the amount of \$_____.

[Signatures] _____

Principal _____

(Notary) Date _____

[Signatures] _____

Claimant(s) _____

(Notary) Date _____

(b) A valid final court order establishing a judgment against the principal for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the principal's facility or group of facilities.

14. In the event of combination of this guarantee with another mechanism to meet liability requirements, this guarantee will be considered [insert "primary" or "excess"] coverage.

I hereby certify that the wording of the guarantee is identical to the wording specified in subdivision b of subsection 8 of section 33-24-05-81 as such regulations were constituted on the date shown immediately below.

Effective date: _____
[Name of guarantor] _____
[Authorized signature for guarantor] _____
[Name of person signing] _____
[Title of person signing] _____
Signature of witness of notary: _____

9. A hazardous waste facility liability endorsement as required in section 33-24-05-79 must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

HAZARDOUS WASTE FACILITY LIABILITY ENDORSEMENT

1. This endorsement certifies that the policy to which the endorsement is attached provides liability insurance covering bodily injury and property damage in connection with the insured's obligation to demonstrate financial responsibility under North Dakota Administrative Code section 33-24-05-79. The coverage applies at [list identification number, name, and address for each facility] for [insert "sudden accidental occurrences", "nonsudden accidental occurrences", or "sudden and nonsudden accidental occurrences"; if coverage is for multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for nonsudden accidental occurrences and which are insured for both]. The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the insurer's liability] exclusive of legal defense costs.
2. The insurance afforded with respect to such occurrences is subject to all of the terms and conditions of the policy; provided, however, that any provisions of the policy inconsistent with subsections (a) through (e) of this paragraph 2 are hereby amended to conform with subsections (a) through (e):
 - (a) Bankruptcy or insolvency of the insured shall not relieve the insurer of its obligations under the policy to which this endorsement is attached.

- (b) The insurer is liable for the payment of amounts within any deductible applicable to this policy with a right of reimbursement by the insured for any such payment made by the insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in subsection 6 of North Dakota Administrative Code section 33-24-05-79.
- (c) When requested by the North Dakota State Department of Health (DEPARTMENT), the insurer agrees to furnish to the DEPARTMENT a signed duplicate original of the policy and all endorsements.
- (d) Cancellation of this endorsement, whether by the insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility will be effective only upon written notice and only after the expiration of sixty days after a copy of such written notice is received by the DEPARTMENT.
- (e) Any other termination of this endorsement will be effective only upon written notice, and only after the expiration of thirty days after a copy of such written notice is received by the DEPARTMENT, as evidenced by the return receipt.

Attached to and forming part of policy number _____ issued by [name of insurer] herein called the insurer of [address of insurer] to [name of insured] of [address] this _____ day of _____, 49 20____. The effective date of said policy is _____ day of _____, 49 20____.

I hereby certify that the wording of this endorsement is identical to the wording specified in subsection 9 of North Dakota Administrative Code section 33-24-05-81, as such rule was constituted on the date first above written, and that the insurer is licensed to transact the business of insurance in the state of North Dakota or eligible to provide insurance as an excess or surplus lines insurer in one or more states.

[Signature of authorized representative of insurer]

[Type name]

[Title], authorized representative of [name of insurer]

[Address of representative]

10. A certificate of liability insurance as required in section 33-24-05-79 must be worded as follows, except that the instructions in brackets are to be replaced with the relevant information and the brackets deleted:

HAZARDOUS WASTE FACILITY CERTIFICATE OF LIABILITY
INSURANCE

1. [Name of insurer, (the "insurer") of [address of insurer] hereby certifies that it has issued liability insurance covering bodily injury and property damage to [name of insured], (the "insured"), of [address of insured] in connection with the insured's obligation to demonstrate financial responsibility under North Dakota Administrative Code section 33-24-05-79. The coverage applies at [list identification number, name, and address for each facility] for [insert "sudden accidental occurrences", "nonsudden accidental occurrences", or "sudden and nonsudden accidental occurrences"; if coverage is for multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for nonsudden accidental occurrences and which are insured for both]. The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the insurer's liability], exclusive of legal defense costs. The coverage is provided under policy number _____, issued on [date] the effective date of said policy is [date].
2. The insurer further certifies the following with respect to the insurance described in paragraph 1:
 - (a) Bankruptcy or insolvency of the insured shall not relieve the insurer of its obligations under the policy.
 - (b) The insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in subsection 6 of North Dakota Administrative Code section 33-24-05-79.
 - (c) When requested by the North Dakota State Department of Health (DEPARTMENT), the insurer agrees to furnish to the DEPARTMENT a signed duplicate original of the policy and all endorsements.
 - (d) Cancellation of the insurance, whether by the insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or

operator of the hazardous waste management facility, will be effective only upon written notice, and only after the expiration of sixty days after a copy of such written notice is received by the DEPARTMENT.

- (e) Any other termination of the insurance will be effective only upon written notice, and only after the expiration of thirty days after a copy of such written notice is received by the DEPARTMENT, as evidenced by the return receipt.

I hereby certify that the wording of this instrument is identical to the wording specified in subsection 7 of North Dakota Administrative Code section 33-24-05-81, as such regulation was constituted on the date first above written, and that the insurer is licensed to transact the business of insurance, in the state of North Dakota or eligible to provide insurance as an excess or surplus lines insurer in one or more states.

[Signature of authorized representative of insurer]

[Type name]

[Title], authorized representative of [name of insurer]

[Address of representative]

- 11. A letter of credit, as specified in subsection 8 of section 33-24-05-79, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Irrevocable Standby Letter of Credit
Name and Address of Issuing Institution
North Dakota State Department of Health

Dear Sir or Madam: We hereby establish our Irrevocable Standby Letter of Credit No. _____ in the favor of ["any and all third-party liability claimants" or insert name of TRUSTEE of the standby trust fund], at the request and for the account of [owner or operator's name and address] for third-party liability awards or settlements up to [in words] United States dollars \$_____ per occurrence and the annual aggregate amount of [in words] United States dollars \$_____, for sudden accidental occurrences and/or for third-party liability awards or settlements up to the amount of [in words] United States dollars \$_____ per occurrence, and the annual aggregate amount of [in words] United States dollars \$_____, for nonsudden accidental occurrences available upon presentation of a sight draft bearing reference to this letter of credit No. _____, and [insert the following language if the letter of credit is being used without a standby trust fund]: (1) a signed certificate reading as follows:

Certificate of Valid Claim

The undersigned, as parties [insert principal] and [insert name and address of third-party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operations of [principal's], hazardous waste treatment, storage, or disposal facility should be paid in the amount of \$[_____]. We hereby certify that the claim does not apply to any of the following:

(a) Bodily injury or property damage for which [insert principal] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert principal] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert principal] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of [insert principal] arising from, and in the course of, employment by [insert principal]; or

(2) The spouse, child, parent, brother, or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert principal].

This exclusion applies:

(A) Whether [insert principal] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert principal];

(2) Premises that are sold, given away, or abandoned by [insert principal] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert principal];

(4) Personal property in the care, custody, or control of [insert principal];

(5) That particular part of real property on which [insert principal] or any contractors or subcontractors working directly or indirectly on behalf of [insert principal] are performing operations, if the property damage arises out of these operations.

[Signatures] _____

GRANTOR _____

[Signatures] _____

Claimant(s) _____

or (2) a valid final court order establishing a judgment against the GRANTOR for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the GRANTOR'S facility or group of facilities.

This letter of credit is effective as of [date] and shall expire on [date at least one year later], but such expiration date shall be automatically extended for a period of [at least one year] on [date] and on each successive expiration date, unless, at least one hundred twenty days before the current expiration date, we notify you, the DEPARTMENT, and [owner's or operator's name] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date.

When this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us.

[Insert the following language if a standby trust fund is not being used: "In the event that this letter of credit is used in combination with another mechanism for liability coverage, this letter of credit shall be considered [insert "primary" or "excess" coverage]."

We certify that the wording of this letter of credit is identical to the wording specified in subsection 11 of section 33-24-05-81 as such regulations were constituted on the date shown immediately below. [Signature(s) and title(s) of official(s) of issuing institution] [Date].

This credit is subject to [insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits published and copyrighted by the International Chamber of Commerce" or "the Uniform Commercial Code"].

12. A surety bond, as specified in subsection 9 of section 33-24-05-79, must be worded as follows: except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

PAYMENT BOND

Surety Bond No. [Insert number]

Parties [Insert name and address of owner or operator], principal, incorporated in [Insert state of incorporation] of [Insert city and state of principal place of business] and [Insert name and address of surety company(ies)], surety company(ies), of [Insert surety(ies) place of business].

~~State/environmental protection agency identification~~ Identification number, name, and address ~~or for~~ each facility guaranteed by this bond:

	Sudden Accidental Occurrences	Nonsudden Accidental Occurrences
Penal Sum Per Occurrence	[Insert Amount]	[Insert Amount]
Annual Aggregate	[Insert Amount]	[Insert Amount]

Purpose: This is an AGREEMENT between the surety(ies) and the principal under which the surety(ies), its (their) successors and assignees, agree to be responsible for the payment of claims against the principal for bodily injury and/or property damage to third parties caused by ["sudden" and/or "nonsudden"] accidental occurrences arising from operations of the facility or group of facilities in the sums prescribed herein; subject to the governing provisions and the following conditions.

Governing Provisions:

(1) Section 3004 of the Resource Conservation and Recovery Act of 1976, as amended.

(2) Rules and regulations of the United States environmental protection agency (EPA), particularly 40 CFR ["264.147" or "265.147"] (if applicable).

(3) Rules and regulations of the governing state agency [particularly section 33-24-05-79 and subsection 5 of section 33-24-06-16 of the North Dakota Administrative Code] (if applicable).

Conditions:

(1) The principal is subject to the applicable governing provisions that require the principal to have and maintain liability coverage for bodily injury and property damage to third parties caused by ["sudden" and/or "nonsudden"] accidental occurrences arising from operations of

the facility or group of facilities. Such obligation does not apply to any of the following:

(a) Bodily injury or property damage for which [insert principal] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert principal] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert principal] under a workers' compensation, disability benefits, or unemployment compensation law or similar law.

(c) Bodily injury to:

(1) An employee of [insert principal] arising from, and in the course of, employment by [insert principal]; or

(2) The spouse, child, parent, brother, or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert principal]. This exclusion applies:

(A) Whether [insert principal] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert principal];

(2) Premises that are sold, given away, or abandoned by [insert principal] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert principal];

(4) Personal property in the care, custody, or control of [insert principal];

(5) That particular part of real property on which [insert principal] or any contractors or subcontractors working directly or indirectly on behalf

of [insert principal] are performing operations, if the property damage arises out of these operations.

(2) This bond assures that the principal will satisfy valid third-party liability claims, as described in condition 1.

(3) If the principal fails to satisfy a valid third-party liability claim, as described above, the surety(ies) becomes liable on this bond obligation.

(4) The surety(ies) shall satisfy a third-party liability claim only upon the receipt of one of the following documents:

(a) Certification from the principal and the third-party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

CERTIFICATION OF VALID CLAIM

The undersigned, as parties [insert name of principal] and [insert name and address of third-party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating [principal's] hazardous waste treatment, storage, or disposal facility should be paid in the amount of \$[_____].

[Signature]

Principal

[Notary] [Date]

[Signature(s)]

Claimant(s)

[Notary] [Date]

or (b) A valid final court order establishing a judgment against the principal for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the principal's facility or group of facilities.

(5) In the event of combination of this bond with another mechanism for liability coverage, this bond will be considered [insert "primary" or "excess"] coverage.

(6) The liability of the surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond. In no event shall the obligation of the surety(ies) hereunder exceed the amount of said annual aggregate penal sum, provided that the surety(ies) furnish(es) notice to the DEPARTMENT forthwith of all claims filed and payments made by the surety(ies) under this bond.

(7) The surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the principal and the DEPARTMENT provided, however, the cancellation shall not occur during the one hundred twenty days beginning on the date of receipt of the notice of cancellation by the principal and the DEPARTMENT, as evidenced by the return receipt.

(8) The principal may terminate this bond by sending written notice to the surety(ies) and to the DEPARTMENT.

(9) The surety(ies) hereby waive(s) notification of amendments to applicable laws, statutes, rules, and regulations and agree(s) that no such amendment shall in any way alleviate its (their) obligation on this bond.

(10) This bond is effective from [insert date] (12:01 a.m., standard time, at the address of the principal as stated herein) and shall continue in force until terminated as described above.

In Witness Whereof, the principal and surety(ies) have executed this bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the principal and surety(ies) and that the wording of this surety bond is identical to the wording specified in subsection 12 of section 33-24-05-81, as such regulations were constituted on the date this bond was executed.

PRINCIPAL

[Signature(s)]

[Name(s)]

[Title(s)]

[Corporate seal]

CORPORATE SURETY(IES)

State of incorporation: _____

Liability limit: \$ _____

[Signature(s)]

[Name(s) and title(s)]

[Corporate seal]

[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for surety above.]

Bond premium: \$ _____

13. TRUST AGREEMENT

a. A TRUST AGREEMENT, as specified in subsection 10 of section 33-24-05-79, must be worded as follows, except that instructions in

brackets are to be replaced with the relevant information and the brackets deleted:

TRUST AGREEMENT

TRUST AGREEMENT, the "AGREEMENT", entered into as of [date] by and between [name of the owner or operator] a [name of state] [insert "corporation", "partnership", "association", or "proprietorship"], the "GRANTOR", and [name of corporate TRUSTEE], [insert, "incorporated in the state of _____" or "a national bank"], the "TRUSTEE".

Whereas, the DEPARTMENT has established certain regulations applicable to the GRANTOR, requiring that an owner or operator of a hazardous waste management facility or group of facilities must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental and/or nonsudden accidental occurrences arising from operations of the facility or group of facilities.

Whereas, the GRANTOR has elected to establish a trust to assure all or part of such financial responsibility for the facilities identified herein.

Whereas, the GRANTOR, acting through its duly authorized officers, has selected the TRUSTEE to be the TRUSTEE under this AGREEMENT, and the TRUSTEE is willing to act as TRUSTEE.

Now, therefore, the GRANTOR and the TRUSTEE agree as follows:

Section 1. Definitions. As used in this AGREEMENT:

(a) The term "GRANTOR" means the owner or operator who enters into this AGREEMENT and any successors or assigns of the GRANTOR.

(b) The term "TRUSTEE" means the TRUSTEE who enters into this AGREEMENT and any successor TRUSTEE.

Section 2. Identification of Facilities. This AGREEMENT pertains to the facilities identified on attached schedule A [on schedule A, for each facility list the ~~environmental protection agency~~ identification number, name, and address of the facility(ies) and the amount of liability coverage, or portions thereof, if more than one instrument affords combined coverage as demonstrated by this AGREEMENT].

Section 3. Establishment of FUND. The GRANTOR and the TRUSTEE hereby establish a trust fund, hereinafter the "FUND", for

the benefit of any and all third parties injured or damaged by [sudden ~~and/or~~ or nonsudden, or both] accidental occurrences arising from operation of the facility(ies) covered by this guarantee, in the amount of _____ [up to \$1 million] per occurrence and _____ [up to \$2 million] annual aggregate for sudden accidental occurrences and _____ [up to \$3 million] per occurrence and _____ [up to \$6 million] annual aggregate for nonsudden occurrences, except that the FUND is not established for the benefit of third parties for the following:

(a) Bodily injury or property damage for which [insert GRANTOR] is obligated to pay damages by reason of the assumption of liability in a contract or AGREEMENT. This exclusion does not apply to liability for damages that [insert GRANTOR] would be obligated to pay in the absence of the contract or AGREEMENT.

(b) Any obligation of [insert GRANTOR] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of [insert GRANTOR] arising from, and in the course of, employment by [insert GRANTOR]; or

(2) The spouse, child, parent, brother, or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert GRANTOR].

This exclusion applies:

(A) Whether [insert GRANTOR] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert GRANTOR];

(2) Premises that are sold, given away, or abandoned by [insert GRANTOR] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert GRANTOR];

(4) Personal property in the care, custody, or control of [insert GRANTOR];

(5) That particular part of real property on which [insert GRANTOR] or any contractors or subcontractors working directly or indirectly on behalf of [insert GRANTOR] are performing operations, if the property damage arises out of these operations.

In the event of combination with another mechanism for liability coverage, the FUND shall be considered [insert "primary" or "excess"] coverage.

The FUND is established initially as consisting of the property, which is acceptable to the TRUSTEE, described in schedule B attached hereto. Such property and any other property subsequently transferred to the TRUSTEE is referred to as the FUND, together with all earnings and profits thereon, less any payments or distributions made by the TRUSTEE pursuant to this AGREEMENT. The FUND shall be held by the TRUSTEE, IN TRUST, as hereinafter provided. The TRUSTEE shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the GRANTOR, any payments necessary to discharge any liabilities of the GRANTOR established by the DEPARTMENT.

Section 4. Payment for Bodily Injury or Property Damage. The TRUSTEE shall satisfy a third-party liability claim by making payments from the FUND only upon receipt of one of the following documents:

(a) Certification from the GRANTOR and the third-party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

CERTIFICATION OF VALID CLAIM

The undersigned, as parties [insert GRANTOR] and [insert name and address of third-party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating [GRANTOR'S] hazardous waste treatment, storage, or disposal facility should be paid in the amount of \$[_____].

[Signatures]
Grantor

[Signatures]
Claimant(s)

(b) A valid final court order establishing a judgment against the GRANTOR for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the GRANTOR'S facility or group of facilities.

Section 5. Payments Comprising the FUND. Payments made to the TRUSTEE for the FUND shall consist of cash or securities acceptable to the TRUSTEE.

Section 6. TRUSTEE Management. The TRUSTEE shall invest and reinvest the principal and income, in accordance with general investment policies and guidelines which the GRANTOR may communicate in writing to the TRUSTEE from time to time, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing the FUND, the TRUSTEE shall discharge ~~his~~ the trustee's duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstance then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the GRANTOR, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2(a), may not be acquired or held, unless they are securities or other obligations of the federal or a state government;

(ii) The TRUSTEE is authorized to invest the FUND in time or demand deposits of the TRUSTEE, to the extent insured by an agency of the federal or a state government; and

(iii) The TRUSTEE is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The TRUSTEE is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the FUND to any common commingled, or collective trust fund created by the TRUSTEE in which the FUND is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 81a-1 et seq., including one which may be created, managed, underwritten, or to

which investment advice is rendered or the shares of which are sold by the TRUSTEE. The TRUSTEE may vote such shares in its discretion.

Section 8. Express Powers of TRUSTEE. Without in any way limiting the powers and discretions conferred upon the TRUSTEE by the other provisions of this AGREEMENT or by law, the TRUSTEE is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the TRUSTEE shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the FUND in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the TRUSTEE in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States government, or any agency or instrumentality thereof, with a federal reserve bank, but the books and records of the TRUSTEE shall at all times show that all such securities are part of the FUND;

(d) To deposit any cash in the FUND in interest-bearing accounts maintained or savings certificates issued by the TRUSTEE, in its separate corporate capacity, or in any other banking institution affiliated with the TRUSTEE, to the extent insured by an agency of the federal or state government; and

(e) To compromise or otherwise adjust all claims in favor of or against the FUND.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the FUND and all brokerage commissions incurred by the FUND shall be paid from the FUND. All other expenses incurred by the TRUSTEE in connection with the administration of this trust, including fees for legal services rendered to the TRUSTEE, the compensation of the TRUSTEE to the extent

not paid directly by the GRANTOR, and all other proper charges and disbursements of the TRUSTEE shall be paid from the FUND.

Section 10. Annual Valuations. The TRUSTEE shall annually, at least thirty days prior to the anniversary date of establishment of the FUND, furnish to the GRANTOR and to the DEPARTMENT a statement confirming the value of the trust. Any securities in the FUND shall be valued at market value as of no more than sixty days prior to the anniversary date of establishment of the FUND. The failure of the GRANTOR to object in writing to the TRUSTEE within ninety days after the statement has been furnished to the GRANTOR and the DEPARTMENT shall constitute a conclusively binding assent by the GRANTOR barring the GRANTOR from asserting any claim or liability against the TRUSTEE with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The TRUSTEE may from time to time consult with counsel, who may be counsel to the GRANTOR with respect to any question arising as to the construction of this AGREEMENT or any action to be taken hereunder. The TRUSTEE shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. TRUSTEE Compensation. The TRUSTEE shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the GRANTOR.

Section 13. Successor TRUSTEE. The TRUSTEE may resign or the GRANTOR may replace the TRUSTEE, but such resignation or replacement shall not be effective until the GRANTOR has appointed a successor TRUSTEE and this successor accepts the appointment. The successor TRUSTEE shall have the same powers and duties as those conferred upon the TRUSTEE hereunder. Upon the successor TRUSTEE'S acceptance of the appointment, the TRUSTEE shall assign, transfer, and pay over to the successor TRUSTEE the funds and properties then constituting the FUND. If for any reason the GRANTOR cannot or does not act in the event of the resignation of the TRUSTEE, the TRUSTEE may apply to a court of competent jurisdiction for the appointment of a successor TRUSTEE or for instructions. The successor TRUSTEE shall specify the date on which it assumes administration of the trust in a writing sent to the GRANTOR, the DEPARTMENT, and the present TRUSTEE by certified mail ten days before such change becomes effective. Any expenses incurred by the TRUSTEE as a result of any of the acts contemplated by this section shall be paid as provided in Section 9.

Section 14. Instructions to the TRUSTEE. All orders, requests, and instructions by the GRANTOR to the TRUSTEE shall be in writing, signed by such persons as are designated in the attached

exhibit A or such other designees as the GRANTOR may designate by amendments to exhibit A. The TRUSTEE shall be fully protected in acting without inquiry in accordance with the GRANTOR'S orders, requests, and instructions. All orders, requests, and instructions by the DEPARTMENT to the TRUSTEE shall be in writing, signed by the DEPARTMENT, or its designees, and the TRUSTEE shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The TRUSTEE shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the GRANTOR or DEPARTMENT hereunder has occurred. The TRUSTEE shall have no duty to act in the absence of such orders, requests, and instructions from the GRANTOR and/or the department, except as provided for herein.

Section 15. Notice of Nonpayment. If a payment for bodily injury or property damage is made under Section 4 of this trust, the TRUSTEE shall notify the GRANTOR of such payment and the amount(s) thereof within five working days. The GRANTOR shall, on or before the anniversary date of the establishment of the FUND following such notice, either make payments to the TRUSTEE in amounts sufficient to cause the trust to return to its value immediately prior to the payment of claims under Section 4, or shall provide written proof to the TRUSTEE that other financial assurance for liability coverage has been obtained equaling the amount necessary to return the trust to its value prior to the payment of claims. If the GRANTOR does not either make payments to the TRUSTEE or provide the TRUSTEE with such proof, the TRUSTEE shall within ten working days after the anniversary date of the establishment of the FUND provide a written notice of nonpayment to the DEPARTMENT.

Section 16. Amendment of AGREEMENT. This AGREEMENT may be amended by an instrument in writing executed by the GRANTOR, the TRUSTEE, and the appropriate DEPARTMENT administrator if the GRANTOR ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this AGREEMENT as provided in Section 16, this trust shall be irrevocable and shall continue until terminated at the written AGREEMENT of the GRANTOR, the TRUSTEE, and the DEPARTMENT, or by the TRUSTEE, and the DEPARTMENT, if the GRANTOR ceases to exist. Upon termination of the trust, all remaining trust property, less final trust administration expenses, shall be delivered to the GRANTOR.

The DEPARTMENT will agree to termination of the trust when the owner or operator substitutes alternate financial assurance as specified in this section.

Section 18. Immunity and Indemnification. The TRUSTEE shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this trust, or in carrying out any directions by the GRANTOR or the DEPARTMENT issued in accordance with this AGREEMENT. The TRUSTEE shall be indemnified and saved harmless by the GRANTOR or from the trust fund, or both, from and against any personal liability to which the TRUSTEE may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the GRANTOR fails to provide such defense.

Section 19. Choice of Law. This AGREEMENT shall be administered, construed, and enforced according to the laws of the state of North Dakota.

Section 20. Interpretation. As used in this AGREEMENT, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this AGREEMENT shall not affect the interpretation or the legal efficacy of this AGREEMENT.

In Witness Whereof the parties have caused this AGREEMENT to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this AGREEMENT is identical to the wording specified in subsection 13 of section 33-24-05-81, as such regulations were constituted on the date first above written.

[Signature of GRANTOR]
[Title]

Attest:

[Title]
[Seal]

[Signature of TRUSTEE]

Attest:

[Title]
[Seal]

b. The following is an example of the certification of acknowledgment which must accompany the TRUST AGREEMENT for a trust fund as specified in subsection 10 of section 33-24-05-79.

State of _____
County of _____

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the board of directors of said corporation, and that she/he signed her/his name thereto by like order.

[Signature of notary public]

14. Standby TRUST AGREEMENT

a. A standby TRUST AGREEMENT, as specified in subsection 8 of section 33-24-05-79, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Standby TRUST AGREEMENT

TRUST AGREEMENT, the "AGREEMENT", entered into as of [date] by and between [name of the owner or operator] a [name of a state] [insert "corporation", "partnership", "association", or "proprietorship"], the "GRANTOR", and [name of corporate TRUSTEE], [insert, "incorporated in the state of _____" or "a national bank"], the "TRUSTEE".

Whereas the North Dakota State Department of Health has established certain regulations applicable to the GRANTOR, requiring that an owner or operator of a hazardous waste management facility or group of facilities must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental and/or nonsudden accidental occurrences arising from operations of the facility or group of facilities.

Whereas, the GRANTOR has elected to establish a standby trust into which the proceeds from a letter of credit may be deposited to assure all or part of such financial responsibility for the facilities identified herein.

Whereas, the GRANTOR, acting through its duly authorized officers, has selected the TRUSTEE to be the TRUSTEE under this AGREEMENT, and the TRUSTEE is willing to act as TRUSTEE.

Now, therefore, the GRANTOR and the TRUSTEE agree as follows:

Section 1. Definitions. As used in this AGREEMENT:

(a) The term "GRANTOR" means the owner or operator who enters into this AGREEMENT and any successors or assigns of the GRANTOR.

(b) The term "TRUSTEE" means the TRUSTEE who enters into this AGREEMENT and any successor TRUSTEE.

Section 2. Identification of Facilities. This AGREEMENT pertains to the facilities identified on attached schedule A [on schedule A, for each facility list the ~~environmental protection agency~~ identification number, name, and address of the facility(ies) and the amount of liability coverage, or portions thereof, if more than one instrument affords combined coverage as demonstrated by this AGREEMENT].

Section 3. Establishment of FUND. The GRANTOR and the TRUSTEE hereby establish a standby trust fund, hereafter the "FUND", for the benefit of any and all third parties injured or damaged by [sudden and/or nonsudden] accidental occurrences arising from operation of the facility(ies) covered by this guarantee, in the amounts of _____ [up to \$1 million] per occurrence and _____ [up to \$2 million] annual aggregate for sudden accidental occurrences and _____ [up to \$3 million] per occurrence and _____ [up to \$6 million] annual aggregate for nonsudden occurrences, except that the FUND is not established for the benefit of third parties for the following:

(a) Bodily injury or property damage for which [insert GRANTOR] is obligated to pay damages by reason of the assumption of liability in a contract or AGREEMENT. This exclusion does not apply to liability for damages that [insert GRANTOR] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert GRANTOR] under a workers' compensation, disability benefits, or unemployment compensation law, or any similar law.

(c) Bodily injury to:

(1) An employee [insert GRANTOR] arising from, and in the course of, employment by [insert GRANTOR]; or

(2) The spouse, child, parent, brother, or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert GRANTOR].

This exclusion applies:

(A) Whether [insert GRANTOR] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert GRANTOR];

(2) Premises that are sold, given away, or abandoned by [insert GRANTOR] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert GRANTOR];

(4) Personal property in the care, custody, or control of [insert GRANTOR];

(5) That particular part of real property on which [insert GRANTOR] or any contractors or subcontractors working directly or indirectly on behalf of [insert GRANTOR] are performing operations, if the property damage arises out of these operations.

In the event of combination with another mechanism for liability coverage, the FUND shall be considered [insert "primary" or "excess"] coverage.

The FUND is established initially as consisting of the proceeds of the letter of credit deposited into the FUND. Such proceeds and any other property subsequently transferred to the TRUSTEE is referred to as the FUND, together with all earnings and profits thereon, less any payments or distributions made by the TRUSTEE pursuant to this AGREEMENT. The FUND shall be held by the TRUSTEE, IN TRUST, as hereinafter provided. The TRUSTEE shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the GRANTOR, any payments necessary to discharge any liabilities of the GRANTOR established by the DEPARTMENT.

Section 4. Payment for Bodily Injury or Property Damage. The TRUSTEE shall satisfy a third-party liability claim by drawing on the letter of credit described in schedule B and by making payments from the FUND only upon receipt of one of the following documents:

(a) Certification from the GRANTOR and the third-party claimant(s) that the liability claim should be paid. The certification must be worded as

follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Certification of Valid Claim

The undersigned, as parties [insert GRANTOR] and [insert name and address of third-party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating [GRANTOR'S] hazardous waste treatment, storage, or disposal facility should be paid in the amount of \$[_____].

[Signatures] _____

Grantor _____

[Signatures] _____

Claimant(s) _____

(b) A valid final court order establishing a judgment against the GRANTOR for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the GRANTOR'S facility or group of facilities.

Section 5. Payments Comprising the FUND. Payments made to the TRUSTEE for the FUND shall consist of the proceeds from the letter of credit drawn upon by the TRUSTEE in accordance with the requirements of subsection 11 of section 33-24-05-81 and Section 4 of this AGREEMENT.

Section 6. TRUSTEE Management. The TRUSTEE shall invest and reinvest the principal and income, in accordance with general investment policies and guidelines which the GRANTOR may communicate in writing to the TRUSTEE from time to time, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing the FUND, the TRUSTEE shall discharge ~~his~~ the trustee's duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

- (i) Securities or other obligations of the GRANTOR, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2(a), shall not be acquired or held, unless they are securities or other obligations of the federal or a state government;

- (ii) The TRUSTEE is authorized to invest the FUND in time or demand deposits of the TRUSTEE, to the extent insured by an agency of the federal or a state government; and
- (iii) The TRUSTEE is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The TRUSTEE is expressly authorized in its discretion:

- (a) To transfer from time to time any or all of the assets of the FUND to any common, commingled, or collective trust fund created by the TRUSTEE in which the FUND is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and
- (b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the TRUSTEE. The TRUSTEE may vote such shares in its discretion.

Section 8. Express Powers of TRUSTEE. Without in any way limiting the powers and discretions conferred upon the TRUSTEE by the other provisions of this AGREEMENT or by law, the TRUSTEE is expressly authorized and empowered:

- (a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the TRUSTEE shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;
- (b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;
- (c) To register any securities held in the FUND in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the TRUSTEE in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to

deposit or arrange for the deposit of any securities issued by the United States government, or any agency or instrumentality thereof, with a federal reserve bank, but the books and records of the TRUSTEE shall at all times show that all such securities are part of the FUND;

- (d) To deposit any cash in the FUND in interest-bearing accounts maintained or savings certificates issued by the TRUSTEE, in its separate corporate capacity, or in any other banking institution affiliated with the TRUSTEE, to the extent insured by an agency of the federal or state government; and
- (e) To compromise or otherwise adjust all claims in favor of or against the FUND.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the FUND and all brokerage commissions incurred by the FUND shall be paid from the FUND. All other expenses incurred by the TRUSTEE in connection with the administration of this trust, including fees for legal services rendered to the TRUSTEE, the compensation of the TRUSTEE to the extent not paid directly by the GRANTOR, and all other proper charges and disbursements to the TRUSTEE shall be paid from the FUND.

Section 10. Advice of Counsel. The TRUSTEE may from time to time consult with counsel, who may be counsel to the GRANTOR, with respect to any question arising as to the construction of this AGREEMENT or any action to be taken hereunder. The TRUSTEE shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 11. TRUSTEE Compensation. The TRUSTEE shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the GRANTOR.

Section 12. Successor TRUSTEE. The TRUSTEE may resign or the GRANTOR may replace the TRUSTEE, but such resignation or replacement shall not be effective until the GRANTOR has appointed a successor TRUSTEE and this successor accepts the appointment. The successor TRUSTEE shall have the same powers and duties as those conferred upon the TRUSTEE hereunder. Upon the successor TRUSTEE'S acceptance of the appointment, the TRUSTEE shall assign, transfer, and pay over to the successor TRUSTEE the funds and properties then constituting the FUND. If for any reason the GRANTOR cannot or does not act in the event of the resignation of the TRUSTEE, the TRUSTEE may apply to a court of competent jurisdiction for the appointment of a successor TRUSTEE or for instructions. The successor TRUSTEE shall specify the date on which it assumes administration of the trust in a writing sent to the GRANTOR,

the DEPARTMENT, and the present TRUSTEE by certified mail ten days before such change becomes effective. Any expenses incurred by the TRUSTEE as a result of any of the acts contemplated by this section shall be paid as provided in Section 9.

Section 13. Instructions to the TRUSTEE. All orders, requests, certifications of valid claims, and instructions to the TRUSTEE shall be in writing, signed by such persons as are designated in the attached exhibit A, or such other designees as the GRANTOR may designate by amendments to exhibit A. The TRUSTEE shall be fully protected in acting without inquiry in accordance with the GRANTOR'S orders, requests, and instructions. The TRUSTEE shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the GRANTOR or the DEPARTMENT hereunder has occurred. The TRUSTEE shall have no duty to act in the absence of such orders, requests, and instructions from the GRANTOR and/or the DEPARTMENT, except as provided for herein.

Section 14. Amendment of AGREEMENT. This AGREEMENT may be amended by an instrument in writing executed by the GRANTOR, the TRUSTEE and the DEPARTMENT, or by the TRUSTEE and the DEPARTMENT if the GRANTOR ceases to exist.

Section 15. Irrevocability and Termination. Subject to the right of the parties to amend this AGREEMENT as provided in Section 14, this trust shall be irrevocable and shall continue until terminated at the written AGREEMENT of the GRANTOR, the TRUSTEE, and the DEPARTMENT, or by the TRUSTEE and the DEPARTMENT, if the GRANTOR ceases to exist. Upon termination of the trust, all remaining trust property, less final trust administration expenses, shall be paid to the GRANTOR.

The DEPARTMENT will agree to termination of the trust when the owner or operator substitutes alternative financial assurance as specified in this section.

Section 16. Immunity and Indemnification. The TRUSTEE shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this trust, or in carrying out any directions by the GRANTOR and the DEPARTMENT issued in accordance with this AGREEMENT. The TRUSTEE shall be indemnified and saved harmless by the GRANTOR or from the trust fund, or both, from and against any personal liability to which the TRUSTEE may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the GRANTOR fails to provide such defense.

Section 17. Choice of Law. This AGREEMENT shall be administered, construed, and enforced according to the laws of the state of ~~enter name of state~~ North Dakota.

Section 18. Interpretation. As used in this AGREEMENT, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this AGREEMENT shall not affect the interpretation or the legal efficacy of this AGREEMENT.

In Witness Whereof the parties have caused this AGREEMENT to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this AGREEMENT is identical to the wording specified in subsection 14 of section 33-24-05-81 as such regulations were constituted on the date first above written.

[Signature of GRANTOR]

[Title]

Attest:

[Title]

[Seal]

[Signature of TRUSTEE]

Attest:

[Title]

[Seal]

- b. The following is an example of the certification of acknowledgment which must accompany the TRUST AGREEMENT for a standby trust fund as specified in subsection 8 of section 33-24-05-79. State requirements may differ on the proper content of this acknowledgment.

State of _____

County of _____

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that

she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the board of directors of said corporation, and that she/he signed her/his name thereto by like order.

[Signature of notary public]

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

33-24-05-103. Applicability of tank requirements. The requirements of sections 33-24-05-103 through 33-24-05-114 apply to owners and operators of facilities that use tank systems for storing or treating hazardous waste except as otherwise provided in subsections 1, 2, and 3 or in section 33-24-05-01.

1. Tank systems that are used to treat or store hazardous waste which contains no free liquids and are situated inside a building with an impermeable floor are exempted from the requirements in section 33-24-05-106. To demonstrate the absence or presence of free liquids in the stored/treated 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.
2. Tank systems, including sumps, as defined in section 33-24-01-04, that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempted from the requirements in subsection 1 of section 33-24-05-106.
3. Tanks, sumps, and other such collection devices or systems used in conjunction with drip pads, as defined in section 33-24-01-04 and regulated under sections 33-24-05-501 through 33-24-05-506, must meet the requirements of sections 33-24-05-103 through 33-24-05-117.

History: Effective January 1, 1984; amended effective 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

33-24-05-105. Design and installation of new tank systems or components.

1. Owners or operators of new tank systems or components shall obtain and submit to the department, at time of submittal of part B application information, a written assessment, reviewed and certified by an

independent, qualified registered professional engineer, in accordance with subsection 4 of section 33-24-06-03, attesting that the tank system has sufficient structural integrity and is acceptable for the storing and treating of hazardous waste. The assessment must show that the foundation, structural support, seams, connections, and pressure controls (if applicable) are adequately designed and that the tank system has sufficient structural strength, compatibility with the wastes to be stored or treated, and corrosion protection to ensure that it will not collapse, rupture, or fail. This assessment, which will be used by the department to review and approve or disapprove the acceptability of the tank system design, must include, at a minimum, the following information:

- a. Design standards according to which tanks ~~and/or~~ or the ancillary equipment or both are constructed;
- b. Hazardous characteristics of the waste to be handled;
- c. For new tank systems or components in which the external shell of a metal tank or any external metal component of the tank system will be in contact with the soil or with water, a determination by a corrosion expert of:
 - (1) Factors affecting the potential for corrosion including, but not limited to:
 - (a) Soil moisture content;
 - (b) Soil pH;
 - (c) Soil sulfides level;
 - (d) Soil resistivity;
 - (e) Structure to soil potential;
 - (f) Influence of nearby underground metal structures (for example, piping);
 - (g) Existence of stray electric current; and
 - (h) Existing corrosion protecting measures (for example, coating, cathodic protection); and
 - (2) The type and degree of external corrosion protection that are needed to ensure the integrity of the tank system during the use of the tank system or component, consisting of one or more of the following:

- (a) Corrosion-resistant materials of construction such as special alloys, fiberglass reinforced plastic, etc.;
- (b) Corrosion-resistant coating (such as epoxy, fiberglass, etc.) with cathodic protection (for example, impressed current or sacrificial anodes);
- (c) Electrical isolation devices such as insulating joints and flanges;

[Note: The practices described in the national association of corrosion engineers standard, "Recommended Practice (RP-02-85) Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems", and the American petroleum institute publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems", may be used, where applicable, as guidelines in providing corrosion protection for tank systems.]

- (d) For underground tank system components that are likely to be adversely affected by vehicular traffic, a determination of design or operational measures that will protect the tank system against potential damage; and
- (e) Design considerations to ensure that:
 - [1] Tank foundations will maintain the load of a full tank;
 - [2] Tank systems will be anchored to prevent floatation or dislodgment where the tank system is placed in a saturated zone, or is located within a seismic fault zone subject to the standards of subsection 1 of section 33-24-05-09; and
 - [3] Tank systems will withstand the effects of frost heave.

2. The owner or operator of a new tank system shall ensure that proper handling procedures are adhered to in order to prevent damage to the system during installation. Prior to covering, enclosing, or placing a new tank system or component in use, an independent, qualified installation inspector or an independent, qualified, registered professional engineer, either of whom is trained and experienced in the proper installation of tank systems or components, shall inspect the system for the presence of any of the following items:

- a. Weld breaks;
- b. Punctures;
- c. Scrapes of protective coating;
- d. Cracks;
- e. Corrosion; and
- f. Other structural damage or inadequate construction or installation.

All discrepancies must be remedied before the tank system is covered, enclosed, or placed in use.

- 3. New tank systems or components that are placed underground and that are backfilled must be provided with a backfill material that is of a noncorrosive, porous, homogenous substance and that is installed so that the backfill is placed completely around the tank and compacted to ensure that the tank and piping are fully and uniformly supported.
- 4. All new tanks and ancillary equipment must be tested for tightness prior to being covered, enclosed, or placed into use. If a tank system is found not to be tight, all repairs necessary to remedy the leaks in the system must be performed prior to the tank system being covered, enclosed, or placed into use.
- 5. Ancillary equipment must be supported and protected against physical damage and excessive stress due to settlement, vibration, expansion, or contraction.

[Note: The piping system installation procedures described in American petroleum institute publication 1615 (November 1979), "Installation of Underground Petroleum Storage Systems", or American national standards institute standard B31.3 "Petroleum Refinery Piping" and American national standards institute standard B31.4, "Liquid Petroleum Transportation Piping System", may be used where applicable, as guidelines for proper installation of piping systems.]

- 6. The owner or operator shall provide the type and degree of corrosion protection recommended by an independent corrosion expert, based on information provided under subdivision c of subsection 1 or other corrosion protection if the department believes other corrosion protection is necessary to ensure the integrity of the tank system during use of the tank system. Installation of a corrosion protection system that is field fabricated must be supervised by an independent corrosion expert to ensure proper installation.

7. The owner or operator shall obtain and keep on file at the facility written statements by those persons required to certify the design of the tank system and supervise the installation of the tank system in accordance with the requirements of subsections 2 through 6, attesting that the tank system was properly designed and installed and that repairs, pursuant to subsections 2 and 4 were performed. These written statements must also include the certification statement as required in subsection 4 of section 33-24-06-03.

History: Effective January 1, 1984; 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

33-24-05-106. Containment and detection of releases.

1. In order to prevent the release of hazardous waste or hazardous constituents to the environment, secondary containment that meets the requirements of this section must be provided (except as provided in subsections 6 and 7):
 - a. For all new tank systems or components, prior to being put into service;
 - b. For all existing tank systems used to store or treat hazardous waste numbers F020, F021, F022, F023, F026, and F027 within one year after the effective date of these rules;
 - c. For those existing tank systems of known documented age within one year after the effective date of these rules or when the tank system has reached fifteen years of age, whichever comes later;
 - d. For those existing tank systems for which the age cannot be documented, within eight years of the effective date of these rules; but if the age of the facility is greater than seven years, secondary containment must be provided by the time the facility reaches fifteen years of age or within one year of the effective date of these rules, whichever comes later; and
 - e. For tank systems that store or treat materials that become hazardous wastes subsequent to January 12, 1987, within the time intervals required in subdivisions a through d of ~~subsection 1~~, except that the date a material becomes a hazardous waste must be used in place of January 12, 1987.
2. Secondary containment systems must be:
 - a. Designed, installed, and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, ground

water, or surface water at any time during the use of the tank system; and

- b. Capable of detecting and collecting releases and accumulated liquids until the collected material is removed.
3. To meet the requirements of subsection 2, secondary containment systems must be at a minimum:
 - a. Constructed of or lined with materials that are compatible with the waste or wastes to be placed in the tank system and must have sufficient strength and thickness to prevent failure owing to pressure gradients (including static head and external hydrological forces), physical contact with the waste to which it is exposed, climatic conditions, stress of installation, and the stress of daily operation (including stresses from nearby vehicular traffic);
 - b. Placed on a foundation or base capable of providing support to the secondary containment system, resistance to pressure gradients above and below the system, and capable of preventing failure due to settlement, compression, or uplift;
 - c. Provided with a leak-detection system that is designed and operated so that it will detect the failure of either the primary or secondary containment or both structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within twenty-four hours, or at the earliest practicable time if the owner or operator can demonstrate to the department that the existing detection technologies or site conditions will not allow detection of a release within twenty-four hours; and
 - d. Sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. Spilled or leaked waste and accumulated precipitation must be removed from the secondary containment system within twenty-four hours, or in as timely a manner as possible to prevent harm to human health and the environment, if the owner or operator can demonstrate to the department that removal of the released waste or accumulated precipitation cannot be accomplished within twenty-four hours.
(~~Note: If the collected material is a hazardous waste under chapter 33-24-02, it is subject to management as a hazardous waste in accordance with all applicable requirements of chapters 33-24-03 through 33-24-05. If the collected material is discharged through a point source to waters of the United States, it is subject to the requirements of sections 301, 304, and 402 of the Clean Water Act, as amended. If discharged to a publicly owned treatment works, it is subject to the requirements of section 307 of the Clean Water Act, as amended. If the collected material is released to~~

~~the environment, it may be subject to the reporting requirements of 40 CFR 302.)~~ (Note: If the collected material is a hazardous waste under chapter 33-24-02, it is subject to management as a hazardous waste in accordance with all applicable requirements of chapters 33-24-03 through 33-24-05. If the collected material is discharged through a point source to waters of the United States, it is subject to the requirements of sections 301, 304, and 402 of the Clean Water Act, as amended. If discharged to a publicly owned treatment works, it is subject to the requirements of section 307 of the Clean Water Act, as amended. If the collected material is released to the environment, it may be subject to the reporting requirements of 40 CFR part 302.)

4. Secondary containment for tanks must include one or more of the following devices:
 - a. A liner (external to the tank);
 - b. A vault;
 - c. A double-walled tank; or
 - d. An equivalent device as approved by the department.
5. In addition to the requirements of subsections 2, 3, and 4, secondary containment systems must satisfy the following requirements:
 - a. External liner systems must be:
 - (1) Designed or operated to contain one hundred percent of the capacity of the largest tank within its boundary;
 - (2) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity must be sufficient to contain precipitation from a twenty-five-year, twenty-four-hour rainfall event;
 - (3) Free of cracks or gaps; and
 - (4) Designed and installed to surround the tank completely and to cover all surrounding earth likely to come into contact with the waste if the waste is released from the tanks (for example, capable of preventing lateral as well as vertical migration of the waste).
 - b. Vault systems must be:

- (1) Designed or operated to contain one hundred percent of the capacity of the largest tank within its boundary;
 - (2) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity must be sufficient to contain precipitation from a twenty-five-year, twenty-four-hour rainfall event;
 - (3) Constructed with chemical-resistant water stops in place at all joints (if any);
 - (4) Provided with an impermeable interior coating or lining that is compatible with the stored waste and that will prevent migration of waste into the concrete;
 - (5) Provided with a means to protect against the formation of and ignition of vapors within the vault, if the waste being stored or treated:
 - (a) Meets the definition of ignitable wastes under section 33-24-02-11; or
 - (b) Meets the definition of reactive wastes under section 33-24-02-13, and may form an ignitable or explosive vapor; and
 - (6) Provided with an exterior moisture barrier or be otherwise designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure.
- c. Double-walled tanks must be:
- (1) Designed as an integral structure (for example, an inner tank completely enveloped within an outer shell) so that any release from the inner tank is contained by the outer shell;
 - (2) Protected, if constructed of metal, from both corrosion of the primary tank interior and of the external surface of the outer shell; and
 - (3) Provided with a built-in continuous leak detection system capable of detecting a release within twenty-four hours, or at the earliest practical time if the owner or operator can demonstrate to the department, and the department concludes, that the existing detection technology or site conditions would not allow detection with a release within twenty-four hours. (Note: The provisions outlined in the steel

tank institute's "standard for dual wall underground steel storage tanks" may be used as guidelines for aspects of the design of underground steel double-walled tanks.)

6. Ancillary equipment must be provided with secondary containment (for example, trench, jacketing, double-walled piping) that meets the requirements of subsections 2 and 3 except for:
 - a. Aboveground piping (exclusive of flanges, joints, valves, and other connections) that are visually inspected for leaks on a daily basis;
 - b. Welded flanges, welded joints, and welded connections that are visually inspected for leaks on a daily basis;
 - c. Sealless or magnetic coupling pumps, and sealless valves, that are visually inspected for leaks on a daily basis; and
 - d. Pressurized aboveground piping systems with automatic shutoff devices (for example, excess flow check valves, flow metering shutdown devices, loss of pressure actuated shutoff devices) that are visually inspected for leaks on a daily basis.
7. The owner or operator may obtain a variance from the requirements of this section if the department finds, as a result of a demonstration by the owner or operator that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous waste or hazardous constituent into the ground water; or surface water at least as effectively as secondary containment during the active life of the tank system or that in the event of a release that does migrate to ground water or surface water, no substantial present or potential hazard will be posed to human health or the environment. New underground tank systems may not, per a demonstration in accordance with subdivision b of ~~subsection 7~~, be exempted from secondary containment requirements of this section.
 - a. In deciding whether to grant a variance based on a demonstration of equivalent protection of ground water and surface water, the department will consider:
 - (1) The nature and quantity of the wastes;
 - (2) The proposed alternate design and operation;
 - (3) The hydrogeologic setting of the facility, including the thickness of soils present between the tank system and ground water; and

- (4) All other factors that would influence the quality and mobility of the hazardous constituents and the potential for them to migrate to ground water or surface water.
- b. In deciding whether to grant a variance based on a demonstration of no substantial present or potential hazard, the department will consider:
- (1) The potential adverse effects on ground water, surface water, and land quality taking into account:
 - (a) The physical and chemical characteristics of the waste in the tank system, including its potential for migration;
 - (b) The hydrogeological characteristics of the facility and surrounding land;
 - (c) The potential for health risks caused by human exposure to waste constituents;
 - (d) The potential for damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and
 - (e) The persistence and permanence of potential adverse effects;
 - (2) The potential adverse effects of a release on ground water quality, taking into account:
 - (a) The quantity and quality of ground water and the direction of ground water flow;
 - (b) The proximity and withdrawal rates of ground water users;
 - (c) The current and future uses of ground water in the area; and
 - (d) The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground water quality;
 - (3) The potential adverse effects of a release on surface water quality, taking into account:
 - (a) The quantity and quality of ground water and the direction of ground water flow;

- (b) The patterns of rainfall in the region;
 - (c) The proximity of the tank system to surface waters;
 - (d) The current and future uses of surface waters in the area and any water quality standards established for those surface waters; and
 - (e) The existing quality of surface water, including other sources of contamination and cumulative impact on surface water quality; and
- (4) The potential adverse effects of a release on the land surrounding the tank system, taking into account:
 - (a) The patterns of rainfall in the region; and
 - (b) The current and future uses of the surrounding land.
- c. The owner or operator of a tank system, for which a variance from secondary containment had been granted in accordance with the requirements of subdivision a ~~of subsection 7~~, at which a release of hazardous waste has occurred from the primary tank system, but has not migrated beyond the zone of engineering control (as established in the variance), must:
 - (1) Comply with the requirements of section 33-24-05-109, except subsection 4; and
 - (2) Decontaminate or remove contaminated soil to the extent necessary to:
 - (a) Enable the tank system for which the variance was granted to resume operation with the capability for the detection of releases at least equivalent to the capability it had prior to the release; and
 - (b) Prevent the migration of hazardous waste or hazardous constituents to ground water or surface water; and
 - (3) If contaminated soil cannot be removed or decontaminated in accordance with paragraph 2 ~~of subdivision c of subsection 7~~, comply with the requirements of subsection 2 of section 33-24-05-110.
- d. The owner or operator of a tank system, for which a variance from secondary containment had been granted in accordance with the requirements of subdivision a ~~of subsection 7~~, at which a release of hazardous waste has occurred from the primary tank system

and has migrated beyond the zone of engineering control (as established in the variance), shall:

- (1) Comply with the requirements of subsections 1, 2, 3, and 4 of section 33-24-05-109;
 - (2) Prevent the migration of hazardous waste or hazardous constituents to ground water or surface water, if possible, and decontaminate or remove contaminated soil. If contaminated soil cannot be decontaminated or removed or if ground water has been contaminated, the owner or operator shall comply with the requirements of subsection 2 of section 33-24-05-110;
 - (3) If repairing, replacing, or reinstalling the tank system, provides secondary containment in accordance with the requirements of subsection 1 or reapply for a variance from the secondary containment and meet the requirements for new tank systems in section 33-24-05-105 if the tank system is replaced. The owner or operator shall comply with these requirements even if contaminated soil can be decontaminated or removed and ground water or surface water has not been contaminated.
8. The following procedures must be followed in order to request a variance from secondary containment:
- a. The department must be notified in writing by the owner or operator that the owner or operator intends to conduct and submit a demonstration for a variance from secondary containment as allowed in subsection 7 according to the following schedule:
 - (1) For existing tank systems, at least twenty-four months prior to the date that secondary containment must be provided in accordance with subsection 1; or
 - (2) For new tank systems, at least thirty days prior to entering into a contract for installation; and
 - b. As part of the notification, the owner or operator shall also submit to the department a description of the steps necessary to conduct the demonstration and a timetable for completing each of the steps. The demonstration must address each of the factors listed in subdivision a or b of subsection 7;
 - c. The demonstration for a variance must be completed within one hundred eighty days after notifying the department of an intent to conduct the demonstration; and

- d. ~~If the department intends to grant a variance is granted under this section, the department will require the permittee to construct and operate the tank system in the manner that was demonstrated to meet the requirements for the variance.~~
- (1) The department will inform the public, through a newspaper notice, of the availability of the demonstration for a variance. The notice shall be placed in a daily or weekly major local newspaper of general circulation and shall provide at least thirty days from the date of the notice for the public to review and comment on the demonstration for a variance. The department also will hold a public hearing, in response to a request or at the department's discretion, whenever such a hearing might clarify one or more issues concerning the demonstration for a variance. Public notice of the hearing will be given at least thirty days prior to the date of the hearing and may be given at the same time as notice of the opportunity for the public to review and comment on the demonstration. These two notices may be combined.
- (2) The department will approve or disapprove the request for a variance within ninety days of receipt of the demonstration from the owner or operator and will notify in writing the owner or operator and each person who submitted written comments or requested notice of the variance decision. If the demonstration for a variance is incomplete or does not include sufficient information, the ninety-day time period will begin when the department receives a complete demonstration, including all information necessary to make a final determination. If the public comment period is extended, the ninety-day time period will be similarly extended.
- (3) If a variance is approved, the department will require the permittee to construct and operate the tank system in the manner that was demonstrated to meet the requirements for the variance.
9. All tank systems, until such time as secondary containment that ~~meet~~ meets the requirements of this section is provided, must comply with the following:
- a. For nonenterable underground tanks, a leak test that meets the requirements of subdivision e of subsection 2 of section 33-24-05-104 ~~or other tank integrity method, as approved or required by the department~~ must be conducted at least annually;
- b. For other than nonenterable underground tanks, the owner or operator shall either conduct a leak test as in subdivision a or develop a schedule and procedure for an assessment of the

overall condition of the tank system by an independent, qualified, registered professional engineer. The schedule and procedure must be adequate to detect obvious cracks, leaks, and corrosion or erosion that may lead to cracks and leaks. The owner or operator shall remove the stored waste from the tank, if necessary, to allow the condition of all internal tank surfaces to be assessed. The frequency of these assessments must be based on the material of construction of the tank and its ancillary equipment, the age of the system, the type of corrosion or erosion protection used, the rate of corrosion or erosion observed during the previous inspection, and the characteristics of the waste being stored or treated and, at a minimum, must be conducted annually;

- c. For ancillary equipment, a leak test for other integrity assessment as approved by the department must be conducted by an independent, qualified, registered engineer at least annually;

[Note: The practices described in the American petroleum institute publication guide for inspection of refinery equipment, chapter XIII, "Atmospheric and Low-Pressure Storage Tanks", fourth edition 1981, may be used, where applicable, as guidelines for assessing the overall condition of the tank system.]

- d. The owner or operator shall maintain on file at the facility a record of the results of the assessments conducted in accordance with subdivisions a through c; and
- e. If a tank system or component is found to be leaking or unfit for use as a result of the leak test or assessment in subdivisions a through c, the owner or operator shall comply with the requirements of section 33-24-05-109.

History: Effective January 1, 1984; amended effective October 1, 1986; 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

33-24-05-108. Inspections.

1. The owner or operator shall develop and follow a schedule and procedure for inspecting overfill controls.
2. The owner or operator shall inspect at least once each operating day:
 - a. Overfill and spill control equipment (for example, waste-feed cutoff systems, bypass systems, and drainage systems) to ensure that it is in good working order;

- b. b. Aboveground portions of the tank system, if any, to detect corrosion or releases of waste;
- ~~b.~~ c. Data gathered from monitoring and leak detection equipment (for example, pressure or temperature gauges, monitoring wells) to ensure that the tank system is being ~~operating~~ operated according to its design; and
- ~~c.~~ d. The construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system (for example, dikes) to detect erosion or signs of releases of hazardous waste (for example, wet spots, dead vegetation).

[Note: Subsection 3 of section 33-24-05-06 requires the owner or operator to remedy any deterioration or malfunction the owner or operator finds. Section 33-24-05-109 requires the owner or operator to notify the department within twenty-four hours of confirming a leak. Also, 40 CFR 302 may require the owner or operator to notify the national response center of a release.]

3. The owner or operator must inspect cathodic protection systems, if present, according to, at a minimum, the following schedule to ensure that they are functioning properly:
 - a. The proper operation of the cathodic protection system must be confirmed within six months after initial installation and annually thereafter; and
 - b. All sources of impressed current must be inspected or tested, or both, as appropriate, at least bimonthly (for example, every other month).

[Note: The practices described in the national association of corrosion engineers standard, "Recommended Practice P-028-85 Control of External Corrosion on Metallic, Buried, Partially Buried, or Submerged Liquid Storage Systems", and American petroleum institute publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems", may be used where applicable, as guidelines in maintaining and inspecting cathodic protection systems.]

4. The owner or operator shall document in the operating record of the facility an inspection of those items in subsections 1 through 3.

History: Effective January 1, 1984; 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

33-24-05-118. Applicability of surface impoundment requirements.

Sections 33-24-05-118 through 33-24-05-129 apply to owners and operators at of facilities that use surface impoundments to treat, store, or dispose of hazardous waste, except as section 33-24-05-01 provides otherwise.

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

33-24-05-119. Design and operating requirements.

1. Any surface impoundment that is not covered by subsection 3 must have a liner for all portions of the impoundment (except for existing portions of such impoundments). The liner must be designed, constructed, and installed to prevent any migration of wastes out of the impoundment to the adjacent subsurface soil or ground water or surface water at any time during the active life (including the closure period) of the impoundment. The liner may be constructed of materials that may allow wastes to migrate into the liner (but not into adjacent subsurface soil or ground water or surface water) during the active life of the facility, provided that the impoundment is closed in accordance with subdivision a of subsection 1 of section 33-24-05-122. For impoundments that will be closed in accordance with subdivision d b of subsection 1 of section 33-24-05-122, the liner must be constructed of materials that can prevent wastes from migrating into the liner during the active life of the facility. The liner must be:
 - a. 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;
 - b. Placed upon a foundation or base capable of providing support to the liners liner and resistance to pressure gradients above and below the liners liner to prevent failure of the liners liner due to settlement, compression, or uplift; and
 - c. Installed to cover all surrounding earth likely to be in contact with the waste or leachate.
2. ~~The department, on a case-by-case basis, may exempt an existing portion of a hazardous waste impoundment from subsection 1 if the owner or operator demonstrates that the owner's or operator's existing design and operating practices, together with the location of the owner's or operator's facility and the nature and quantity of waste, will prevent migration of any hazardous constituents into the ground~~

water or surface water: The owner or operator may 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 (as defined in 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. During the active life of the facility, including the closure period, if the owner or operator closes the existing surface impoundment in accordance with subdivision a of subsection 1 of section 33-24-05-122; or The nature and quantity of the wastes:
 - b. During the active life, including the closure period, and the postclosure care period, if the owner or operator closes the existing surface impoundment in accordance with subdivision b of subsection 1 of section 33-24-05-122. 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 impoundment 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.
3. The owner or operator of each new surface impoundment unit on which construction commences after January 29, 1992, each lateral expansion of a surface impoundment unit on which construction commences after July 29, 1992, and each replacement of an existing surface impoundment unit that is to commence reuse after July 29, 1992, must install two or more liners and a leachate collection and removal system 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 subdivisions a, b, and c of subsection 1.
- b. 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~~ 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^{-1} 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^{-4} ~~square meters~~ squared per second or more;
 - (3) Constructed of materials that are chemically resistant to the waste managed in the surface impoundment and the leachate expected to be generated, and of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes and any waste cover materials or equipment used at the surface impoundment;
 - (4) Designed and operated to minimize clogging during the active life and postclosure care period; and
 - (5) Constructed with a sump or 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.

- c. The owner or operator shall collect and remove pumpable liquids in the sumps to minimize the head on the bottom liner.
 - d. 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 system 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 requirement set forth in subsection 3 may be waived by the department for any monofill, if:
 - a. The monofill contains only hazardous wastes 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 ~~EP~~ toxicity characteristics in section 33-24-02-14, ~~with hazardous waste numbers D004 through D017~~; and
 - b. The monofill meets the following:
 - (1) The monofill:
 - (a) Has at least one liner for which there is no evidence that such liner is leaking. For the purposes of this paragraph, the term "liner" means a liner designed, constructed, installed, and operated to prevent hazardous waste from passing into the liner at any time during the active life of the facility, or a liner designed, constructed, installed, and operated to prevent hazardous waste from migrating beyond the liner to adjacent subsurface soil, ground water, or surface water at any time during the active life of the facility. In

the case of any surface impoundment which has been exempted from the requirements of subsection 3 on the basis of a liner designed, constructed, installed, and operated to prevent hazardous waste from passing beyond the liner, at the closure of such impoundment, the owner or operator must remove or decontaminate all waste residues, all contaminated liner material, and contaminated soil to the extent practicable. If all contaminated soil is not removed or decontaminated, the owner or operator of such impoundment will comply with appropriate postclosure requirements, including ground water monitoring and corrective action;

- (b) Is located more than one-quarter mile [.40 kilometer] from an underground source of drinking water (as that term is defined in 40 CFR section 144.3); and
 - (c) Is in compliance with generally applicable ground water monitoring requirements for facilities with permits under Resource Conservation and Recovery Act section 3005(c); 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 surface impoundment unit is exempt from subsection 3 if:
- a. The existing unit was constructed in compliance with the design standards of sections 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. A surface impoundment must be designed, constructed, maintained, and operated to prevent overtopping resulting from normal or abnormal operations; overfilling; wind and wave action; rainfall; run-on; malfunctions of level ~~controls~~ controllers, alarms, and other equipment; and human error.
8. A surface impoundment must have dikes that are designed, constructed, and maintained with sufficient structural integrity to prevent massive failure of the dikes. In ensuring structural integrity, it must not be presumed that the liner system will function without leakage during the active life of the unit.

9. 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; 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

33-24-05-120. Monitoring and inspection.

1. During construction and installation, liners (except in the case of existing portions of surface impoundments exempt from subsection 1 of section 33-24-05-119) 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 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 for imperfections, including lenses, cracks, channels, root holes, or other structural ~~or other~~ nonuniformities that may cause an increase in the permeability of the liner or cover.

These inspections must be conducted by a qualified professional (for example, registered professional engineer).

2. While a surface impoundment 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 overtopping control systems;
 - b. Sudden drops in the level of the impoundments contents;
 - c. The presence of liquids in leak detection systems; and
 - d. Severe erosion or other signs of deterioration in dikes or other containment devices.
3. Prior to the issuance of a permit, and after any period of time greater than six months during which the impoundment was not in service, the owner or operator shall obtain a certification from a qualified engineer that the impoundment's dike, including that portion of any dike which provides freeboard, has structural integrity. The certification must establish, in particular, that the dike:

- a. Will withstand the stress of the pressure exerted by the types and amounts of waste to be placed in the impoundment; and
 - b. Will not fail due to scouring or piping, without dependence on any liner system included in the surface impoundment construction.
- 4. An owner or operator required to have a leak detection system shall comply with the following:
 - a. An owner or operator required to have a leak detection system under subsection 3 or 4 of section 33-24-05-119 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 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

33-24-05-122. Closure and postclosure care.

- 1. At closure, the owner or operator shall:
 - a. Remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless subsection 4 of section 33-24-02-03 applies; or
 - b. Comply with the following:

- (1) Eliminate free liquids by removing liquid wastes or solidifying the remaining wastes and waste residues;
 - (2) Stabilize remaining wastes to a bearing capacity sufficient to support final cover; and
 - (3) Cover the surface impoundment with a final cover designed and constructed to:
 - (a) Provide long-term minimization of the migration of liquids through the closed impoundment;
 - (b) Function with minimum maintenance;
 - (c) Promote drainage and minimize erosion or abrasion of the final 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. If some waste residues or contaminated materials are left in place at final closure, the owner or operator shall comply with all postclosure requirements contained in sections 33-24-05-66 through 33-24-05-69, including maintenance and monitoring throughout the postclosure care period (specified in the permit under section 33-24-05-66). 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. Maintain and monitor the leak detection system in accordance with paragraph 4 of subdivision b of subsection 3 of section 33-24-05-119, subdivision c of subsection 3 of section 33-24-05-119, and subsection 4 of section 33-24-05-120, and comply with all other applicable leak detection system requirements of ~~this part~~ sections 33-24-05-118 through 33-24-05-129;
 - c. 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; and
 - d. Prevent run-on and runoff from eroding or otherwise damaging the final cover.

3. The owner or operator shall also meet the following requirements:
 - a. If an owner or operator plans to close a surface impoundment in accordance with subdivision a of subsection 1, and the impoundment does not comply with the liner requirements of subsection 1 of section 33-24-05-119 and is not exempt from them in accordance with subsection 2 of that section, then:
 - (1) The closure plan for the impoundment under section 33-24-05-61 must include both a plan for complying with subdivision a of subsection 1 and a contingent plan for complying with subdivision b of subsection 1 ~~of this section~~ in case not all contaminated subsoils can be practicably removed at closure; and
 - (2) The owner or operator shall prepare a contingent postclosure plan under section 33-24-05-67 for complying with subsection 2 in case not all contaminated subsoils can be practicably removed at closure; ~~and~~.
 - b. The cost estimates calculated under section 33-24-05-76 for closure and postclosure care of an impoundment subject to this section must include the cost of complying with the contingent closure plan and the contingent postclosure plan ~~in addition to~~, but are not required to include the cost of expected closure under subdivision a of subsection 1.

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

33-24-05-123. Special requirements for ignitable or reactive waste. Ignitable or reactive waste may not be placed in a surface impoundment, unless the waste and impoundment satisfy 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 impoundment so that:
 - a. The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive ~~wastes~~ 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; or

3. The surface impoundment is used solely for emergencies.

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

33-24-05-124. 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 surface impoundment, unless the owner or operator complies with subsection 2 of section 33-24-05-08.

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

33-24-05-128. Air emission standards. The owner or operator shall manage all hazardous waste placed in a surface impoundment in accordance with the requirements of sections ~~33-24-05-450~~ 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

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

1. Sections 33-24-05-144 through 33-24-05-159 apply to owners or operators of ~~facilities that incinerate~~ 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(d) 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.

- 3- 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

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

1. ~~Principle~~ 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 ~~principle~~ principal organic hazardous constituents.
 - a. For each waste feed to be burned, one or more ~~principle~~ 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 ~~principle~~ principal organic hazardous constituents. Constituents are more likely to be designated as ~~principle~~ principal organic hazardous constituents if they are present in large quantities or concentrations in the waste.
 - b. Trial ~~principle~~ 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 ~~principle~~ 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 ~~principle~~ 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 ~~principle~~ principal organic constituent in the waste stream feeding the incinerator, and

W_{out} = mass emission rate of the same ~~principle~~ 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 ~~principle~~ principal organic hazardous constituent designated (under section 33-24-05-146) in its permit. This performance must be demonstrated on ~~principle~~ 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 ~~principle~~ principal organic hazardous constituent from the equation in subdivision a ~~of subsection 4 of section 33-24-05-147.~~ 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

33-24-05-165. 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 ~~principle~~ principal hazardous constituents in lieu of the constituents specified under subsection 2 of section 33-24-05-161. ~~Principle~~ 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 ~~principle~~ principal hazardous constituents if it finds, based on waste analyses, treatment demonstrations, or other data that effective degradation, transformation, or immobilization of the ~~principle~~ 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

33-24-05-177. 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 meters~~ 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 of subsection 3.
 - 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 ~~paragraph~~ 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 ~~coating~~ 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 (~~i.e., 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 (~~i.e., 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

33-24-05-180. 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 ~~this part~~ 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

33-24-05-182. 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 ~~meet~~ 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; ~~or~~
 - b. The container is very small, such as an ampule; ~~or~~
 - 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 ~~of subsection 5~~; materials that pass one of the tests in subdivision b ~~of subsection 5~~; 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); or
 - (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; or
 - (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 ~~the~~ 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).

~~[NOTE: Chapter 33-24-06 requires that the waste analysis plan be submitted with part B of the permit application.]~~

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

33-24-05-185. 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

33-24-05-201. 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. ~~Commercial fertilizers that are produced for the general public's use that contain recyclable materials also are not presently subject to regulation provided they meet the same treatment standards or prohibition levels for each recyclable material that they contain. However, zinc-containing fertilizers using hazardous waste K061 that are produced for the general public's use are not presently subject to regulation.~~
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

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

- ~~1. The regulations of sections 33-24-05-235 through 33-24-05-249 apply to persons who reclaim (including regeneration) spent lead-acid batteries that are recyclable materials ("spent batteries"). Persons who generate, transport, or collect spent batteries, who regenerate spent batteries or who store spent batteries but do not reclaim them (other than spent batteries that are to be regenerated) are not subject to regulation under chapters 33-24-02 through 33-24-07, and also are not subject to the requirements of section 3010 of Resource Conservation and Recovery Act.~~
- ~~2. Owners or operators of facilities that store spent lead-acid batteries before reclaiming them (other than spent batteries that are to be regenerated) are subject to the following requirements:~~
 - ~~a. Notification requirements;~~
 - ~~b. All applicable provisions in sections 33-24-05-01 through 33-24-05-09 (but not section 33-24-05-04 (waste analysis)); and sections 33-24-05-15 through 33-24-05-44 (but not section 33-24-05-38 or 33-24-05-39 (dealing with the use of the manifest and manifest discrepancies)); and sections 33-24-05-47 through 33-24-05-136; and~~
 - ~~c. All applicable provisions in chapters 33-24-06 and 33-24-07.~~
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.

<u>If the batteries:</u>	<u>And if you:</u>	<u>Then you:</u>	<u>And you:</u>
<u>(1) Will be reclaimed through regeneration (such as by electrolyte replacement).</u>		<u>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.</u>	<u>Are subject to chapter 33-24-02 and section 33-24-03-02.</u>
<u>(2) Will be reclaimed other than through regeneration.</u>	<u>Generate, collect, or transport, or any combination of the above, these batteries.</u>	<u>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.</u>	<u>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.</u>

<u>(3) Will be reclaimed other than through regeneration.</u>	<u>Store these batteries but are not the reclaimer.</u>	<u>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.</u>	<u>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.</u>
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<u>(4) Will be reclaimed other than through regeneration.</u>	<u>Store these batteries before you reclaim them.</u>	<u>Must comply with subsection 2 of section 33-24-05-235.</u>	<u>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.</u>
<u>(5) Will be reclaimed other than through regeneration.</u>	<u>Do not store these batteries before you reclaim them.</u>	<u>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.</u>	<u>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.</u>

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

33-24-05-250. 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 ~~146.6(a)~~ 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; and or
 - (3) ~~If at the point of generation the injected wastes include D001 high total organic carbon subcategory wastes or D012-D017 pesticide wastes that are prohibited under 40 CFR section 148.17(c), those wastes have been treated to meet the~~

~~treatment standards of subsection 33-24-05-280 before injection.~~

- d. Wastes that are hazardous only because they exhibit a hazardous characteristic, and which are otherwise prohibited under ~~this part~~ 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; ~~or~~
 - (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:~~

- (1) ~~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; or~~
 - (2) ~~Decharacterized wastes which are injected into class I nonhazardous wells which wastes combined volume is less than one percent of the total flow at the wellhead on an annualized basis, is no greater than ten thousand gallons [3785 liters] per day, and in which any underlying hazardous constituents in the characteristic wastes are present at the point of generation at levels less than ten times the treatment standards specified at section 33-24-05-288. 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.~~
- e. Land disposal prohibitions for hazardous characteristic wastes do not apply to laboratory wastes displaying the characteristic of ignitability (D001), corrosivity (D002), or organic toxicity characteristic (D012 through D043), that are mixed with other plant wastewaters at facilities whose ultimate discharge is subject to regulation under the Clean Water Act, including wastewaters at facilities which have eliminated the discharge of wastewater,

provided that the annualized flow of laboratory wastewater into the facility's headworks does not exceed one percent, or provided that the laboratory wastes' combined annualized average concentration does not exceed one part per million in the facility's headworks.

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 ~~33-24-05-299~~ 33-24-05-290 for the wastes listed below. These handlers are subject to regulation under sections 33-24-05-701 through ~~33-24-05-765~~ 33-24-05-799.
 - a. Batteries as described in section 33-24-05-702;
 - b. Pesticides as described in section 33-24-05-703; ~~and~~
 - 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. ~~"End-of-pipe" means the point where effluent is discharged to the environment.~~
3. ~~"Halogenated organic compounds or HOCs" mean those compounds having a carbon-halogen bond which are listed under appendix VII.~~

4. ~~3.~~ "Hazardous constituent or constituents" means those constituents listed in appendix V to chapter 33-24-02.
5. ~~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.
6. ~~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 2 ~~3~~ of section 33-24-05-252, and is specifically listed in appendix XXIX of chapter 33-24-05.
7. ~~"Inorganic solid debris" are nonfriable inorganic solids that are incapable of passing through a nine and five-tenths millimeter standard sieve that require cutting, or crushing and grinding in mechanical sizing equipment prior to stabilization, limited to the following inorganic or metal materials:~~
- ~~a. Metal slags, either dross or scoria.~~
 - ~~b. Glassified slag.~~
 - ~~c. Glass.~~
 - ~~d. Concrete, excluding cementitious or pozzolanic stabilized hazardous wastes.~~
 - ~~e. Masonry and refractory bricks.~~
 - ~~f. Metal cans, containers, drums, or tanks.~~
 - ~~g. Metal nuts, bolts, pipes, pumps, valves, appliances, or industrial equipment.~~
 - ~~h. Scrap metal as defined in subdivision f of subsection 1 of section 33-24-02-01.~~
8. ~~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.

- 9- 7. "Nonwastewaters" are wastes that do not meet the criteria for wastewaters in subsection 42 11.
- ~~40- 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.
- ~~44- 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.
- ~~42- 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 ~~federal and state~~ 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. ~~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. 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. ~~Dilution of wastes that are hazardous only because they exhibit a hazardous characteristic in a treatment system which treats 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 treats wastes for the purposes of pretreatment requirements under section 307 of the Clean Water Act, or zero discharge systems with wastewater treatment equivalent to these systems, is not impermissible dilution, so long as the section 33-24-05-288 universal treatment standards are met at the point of discharge, or at a prior point of compliance specified under a Clean Water Act permit, for all underlying hazardous constituents reasonably expected to be present at the point of generation of the hazardous waste. 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 for 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
- 9. 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; ~~or~~
 - (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; ~~or~~
 - (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); ~~or~~
 - (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; ~~or~~
 - (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 ~~of the 40 CFR~~) 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) ~~of the 40 CFR~~) 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 ~~of the 40 CFR~~) 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) ~~of the 40 CFR~~) 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

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

- ~~4. Except as specified in section 33-24-05-272, if a generator's waste is listed in section 33-24-02-15 through 33-24-02-19, the generator must test his waste, or test an extract using the test method described in chapter 33-24-02, appendix II, or use knowledge of the waste, to determine if the waste is restricted from land disposal under sections 33-24-05-250 through 33-24-05-299. Except as specified in section 33-24-05-272, if a generator's waste exhibits one or more of the characteristics set out at sections 33-24-02-10 through 33-24-02-14, the generator must test an extract using the test method described in appendix II of chapter 33-24-02, or use knowledge of the waste, to determine if the waste is restricted from land disposal under sections 33-24-05-250 through 33-24-05-299. If the generator determines~~

~~that the waste exhibits the characteristic of ignitability (D001) (and is not in the high total organic compound ignitable liquids subcategory or is not treated by CMBST or RORGS of section 33-24-05-282, table 1), or the characteristic of corrosivity (D002), or reactivity (D003), or the characteristic of organic toxicity (D012 through D043) or any combination of these, and is prohibited under sections 33-24-05-277 through 33-24-05-279, the generator must determine the underlying hazardous constituents (as defined in section 33-24-05-251) in the D001, D002, or D003, or D012 through D043 wastes.~~

~~a. If a generator determines that the generator is managing a restricted waste under this chapter and the waste does not meet the applicable treatment standards set forth in sections 33-24-05-280 through 33-24-05-289 or exceeds the applicable prohibition levels set forth in section 33-24-05-272 or Resource Conservation and Recovery Act section 3004(d), with each shipment of waste, the generator must notify the treatment or storage facility in writing of the appropriate treatment standards set forth in sections 33-24-05-280 through 33-24-05-289 and any applicable prohibition levels set forth in section 33-24-05-272 or Resource Conservation and Recovery Act section 3004(d). The notice must include the following information:~~

- ~~(1) Environmental protection agency state hazardous waste number;~~
- ~~(2) The waste constituents that the treater will monitor, if monitoring will not include all regulated constituents, for wastes F001 through F005, F039, D001, D002, D003, and D012 through D043. Generators must also include whether the waste is a nonwastewater or wastewater (as defined in subsections 4 and 6 of section 33-24-05-251), and indicate the subcategory of the waste (such as "D003 reactive cyanide"), if applicable;~~
- ~~(3) The manifest number associated with the shipment of waste;~~
- ~~(4) For hazardous debris, the contaminants subject to treatment as provided by subsection 2 of section 33-24-05-285 and the following statement: "This hazardous debris is subject to the alternative treatment standards of section 33-24-05-285"; and~~
- ~~(5) Waste analysis data, where available.~~

~~b. If a generator determines that he is managing a restricted waste under sections 33-24-05-250 through 33-24-05-299, and determines that the waste can be land disposed without further treatment, with each shipment of waste he must submit,~~

~~to the treatment, storage, or land disposal facility, a notice and a certification stating that the waste meets the applicable treatment standards set forth in sections 33-24-05-280 through 33-24-05-289 and the applicable prohibition levels set forth in section 33-24-05-272 or Resource Conservation and Recovery Act section 3004(d). Generators of hazardous debris that is excluded from the definition of hazardous waste under subdivision b of subsection 5 of section 33-24-02-03 (for example, debris that the department has determined does not contain hazardous waste); however, are not subject to these notification and certification requirements.~~

~~(1) The notice must include the following information:~~

- ~~(a) Environmental protection agency/state hazardous waste number;~~
- ~~(b) The waste constituents that the treater will monitor, if monitoring will not include all regulated constituents, for wastes F001 through F005, F039, D001, D002, D003, and D012 through D043. Generators must also include whether the waste is a nonwastewater or wastewater (as defined in subsections 4 and 6 of section 33-24-05-251), and indicate the subcategory of the waste (such as "D003 reactive cyanide", if applicable;~~
- ~~(c) The manifest number associated with the shipment of waste; and~~
- ~~(d) Waste analysis data, where available.~~

~~(2) The certification must be signed by an authorized representative and must state the following:~~

~~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 and all applicable prohibitions set forth in section 33-24-05-272 or Resource Conservation and Recovery Act section 3004(d). I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.~~

- ~~c. If a generator's waste is subject to an exemption from a prohibition on the type of land disposal methods utilized for the wastes (such~~

~~as, but not limited to, a case-by-case extension under section 33-24-05-254, an exemption under section 33-24-05-255, or a nationwide capacity variance under sections 33-24-05-270 through 33-24-05-279), with each shipment of waste the generator must submit a notice to the facility receiving his waste stating that the waste is not prohibited from land disposal. The notice must include the following information:~~

- ~~(1) Environmental protection agency/state hazardous waste number;~~
 - ~~(2) The waste constituents that the treater will monitor, if monitoring will not include all regulated constituents, for wastes F001 through F005, F039, D001, D002, D003, and D012 through D043. Generators must also include whether the waste is a nonwastewater or wastewater (as defined in subsections 4 and 6 of section 33-24-05-251), and indicate the subcategory of the waste (such as "D003 reactive cyanide"), if applicable;~~
 - ~~(3) The manifest number associated with the shipment of waste;~~
 - ~~(4) Waste analysis data, where available;~~
 - ~~(5) For hazardous debris when using the alternative treatment technologies provided by section 33-24-05-285:
 - ~~(a) The contaminants subject to treatment, as described in subsection 2 of section 33-24-05-285; and~~
 - ~~(b) An indication that these contaminants are being treated to comply with section 33-24-05-285;~~~~
 - ~~(6) For hazardous debris when using the treatment standards for the contaminating waste in section 33-24-05-280: the requirements described in paragraphs 1, 2, 3, 4, and 7 of subdivision c of subsection 1; and~~
 - ~~(7) The date the waste is subject to the prohibitions.~~
- d. ~~If a generator is managing prohibited waste in tanks, containers, or containment buildings regulated under section 33-24-03-12, and is treating such waste in such tanks, containers, or containment buildings to meet applicable treatment standards under sections 33-24-05-280 through 33-24-05-289, the generator must develop and follow a written waste analysis plan which describes the procedures the generator will carry out to comply with the treatment standards. (Generators treating hazardous debris under the alternative treatment standards of table 1 in 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 wastes being treated, and contain all information necessary to treat the 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 filed with the department a minimum of thirty days prior to the treatment activity, with delivery verified.~~
 - ~~(3) Wastes shipped offsite pursuant to this subdivision must comply with the notification requirements of subdivision b of subsection 1 of section 33-24-05-256.~~
- ~~e. If a generator determines whether the waste 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 whether the waste is restricted based on testing this waste or an extract developed using the test method described in appendix II of chapter 33-24-02, all waste analysis data must be retained onsite in the generator's files.~~
- ~~f. If a generator determines that the generator is managing a restricted waste that is excluded from the definition of hazardous or solid waste or exempt under sections 33-24-02-02 through 33-24-02-06 subsequent to the point of generation. The generator must place a one-time notice stating such generation, subsequent exclusion from the definition of hazardous or solid waste or exemption from article 33-24, and the disposition of the waste, in the facility's file.~~
- ~~g. Generators must retain onsite a copy of all notices, certifications, demonstrations, waste analysis data, and other documentation produced pursuant to this section for at least five 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 five-year record retention 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 paragraph apply to solid wastes even when the hazardous characteristic is removed prior to disposal, or when the waste is excluded from the definition of hazardous or solid waste under sections 33-24-02-02 through 33-24-02-06, or exempted from article 33-24, subsequent to the point of generation.~~

- ~~h. If a generator is managing a lab pack that contains none of the wastes identified in appendix VIII and wishes to use the alternative treatment standard under subsection 3 of section 33-24-05-282, with each shipment of waste, the generator must submit a notice to the treatment facility in accordance with subdivision a of subsection 1, except that underlying hazardous constituents need not be determined. The generator must also comply with the requirements in subdivisions e and f of subsection 1, and must submit the following certification, which must be signed by an authorized representative:~~

~~I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only the wastes specified in appendix VIII of chapter 33-24-05 or solid wastes not subject to regulation under chapter 33-24-02. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.~~

- ~~i. [Reserved]~~

- ~~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. Such testing must be performed as provided in subdivisions a, b, and c of this subsection:~~

- ~~a. For wastes with treatment standards expressed as concentrations in the waste extract (section 33-24-05-281), the owner or operator of the treatment facility must test the treatment residues, or an extract of such residues developed using the test method described in appendix II of chapter 33-24-02, to assure that the treatment residues or extract meet the applicable treatment standards.~~

- ~~b. For wastes that are prohibited under section 33-24-05-272 of this chapter or Resource Conservation and Recovery Act section 3004(d) but not subject to any treatment standards under sections 33-24-05-280 through 33-24-05-289, the owner or operator of the treatment facility must test treatment residues according to the generator testing requirements specified in section 33-24-05-272~~

~~to assure that the treatment residues comply with the applicable prohibitions.~~

- ~~c. For wastes with treatment standards expressed as concentrations in the waste (section 33-24-05-283), the owner or operator of the treatment facility must test the treatment residues (not an extract of such residues) to assure that the treatment residues meet the applicable treatment standards.~~
- ~~d. A notice must be sent with each waste shipment to the land disposal facility which includes the following information, except that debris excluded from the definition of hazardous waste under 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 director has determined does not contain hazardous waste) is subject to the notification and certification requirements of subsection 4 rather than these notification requirements;:~~
 - ~~(1) Environmental protection agency/state hazardous waste number;~~
 - ~~(2) The waste constituents to be monitored, if monitoring will not include all regulated constituents, for wastes F001 through F005, F039, D001, D002, D003, and D012 through D043. Generators must also include whether the waste is a nonwastewater or wastewater (as defined in subsections 4 and 6 of section 33-24-05-251), and indicate the subcategory of the waste (such as D003 reactive cyanide), if applicable;~~
 - ~~(3) The manifest number associated with the shipment of waste; and~~
 - ~~(4) Waste analysis date, where available.~~
- ~~e. The treatment facility must submit a certification with each shipment of waste or treatment residue of a restricted waste to the land disposal facility stating that the waste or treatment residue has been treated in compliance with the applicable performance standards specified in sections 33-24-05-280 through 33-24-05-289 and the applicable prohibitions set forth in section 33-24-05-272 or Resource Conservation and Recovery Act section 3004(d). 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 in 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.

- (1) For wastes with treatment standards expressed as concentrations in the waste extract or in the waste (section 33-24-05-281 or 33-24-05-283), or for wastes prohibited under section 33-24-05-272 or Resource Conservation and Recovery Act section 3004(d) which are not subject to any treatment standards under sections 33-24-05-280 through 33-24-05-289, the certification must be signed by an authorized representative and 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 and that, 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 performance levels specified in sections 33-24-05-280 through 33-24-05-289, and all applicable prohibitions set forth in section 33-24-05-272 or Resource Conservation and Recovery Act section 3004(d) without impermissible dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification including the possibility of fine and imprisonment.

- (2) For wastes with treatment standards expressed as technologies (section 33-24-05-282), the certification must be signed by an authorized representative and must state the following:

I certify under penalty of law that the waste has been treated in accordance with the requirements of section 33-24-05-282. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

- (3) For wastes with treatment standards expressed as concentrations in the waste pursuant to section 33-24-05-283, if compliance with the treatment standards in sections 33-24-05-280 through 33-24-05-289 is based in part or in whole on the analytical detection limit alternative specified in subsection 3 of section 33-24-05-283, the certification also 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 and

~~that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by incineration in units operated in accordance with sections 33-24-05-144 through 33-24-05-151, or by combustion in fuel substitution units operating in accordance with applicable technical requirements, and 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 that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.~~

- ~~(4) For characteristic wastes D001, D002, D003, and D012 through D043 that are: subject to the treatment standards in section 33-24-05-280 (other than those expressed as a required method of treatment); that are reasonably expected to contain underlying hazardous constituents as defined in subsection 9 of section 33-24-05-251; 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 to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet universal 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 D001, D002, D003, and D012 through D043 that contain underlying hazardous constituents as defined in subsection 9 of section 33-24-05-251 that are treated onsite to remove the hazardous characteristic and 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 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.~~

- f. ~~If the waste or treatment residue will be further managed at a different treatment or storage 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 chapter.~~
 - g. ~~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 (for example, the recycler) is not required to notify the receiving facility, pursuant to subdivision d of subsection 2. With each shipment of such wastes, the owner or operator of the recycling facility must submit a certification described in subdivision e of subsection 2, and a notice which includes the information listed in subdivision d of subsection 2 (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 this part must:~~
 - a. ~~Have copies of the notice and certifications specified in subsection 1 or 2, and the certification specified in section 33-24-05-257 if applicable.~~
 - b. ~~Test the waste, or an extract of the waste or treatment residue developed using the test method described in appendix II of chapter 33-24-02 or using any methods required by generators under section 33-24-05-272, 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 and all applicable prohibitions set forth in section 33-24-05-272 or in Resource Conservation and Recovery Act section 3004(d). 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.~~
- 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 director has determined does not contain hazardous waste) are subject to the following notification and certification requirements:~~

- ~~a. A one-time notification must be submitted to the department including the following information:~~
- ~~(1) The name and address of the subtitle D facility receiving the treated debris;~~
 - ~~(2) A description of the hazardous debris as initially generated, including the applicable environmental protection agency/state hazardous waste numbers; and~~
 - ~~(3) For debris excluded under subdivision a of subsection 5 of section 33-24-02-03, the technology from table 1 in section 33-24-05-285, used to treat the debris.~~
- ~~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 33-24-02-02, 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".~~

1. Requirements for generators:

- a. A generator of a 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

<u>Required Information*</u>	<u>Subdivision b</u>	<u>Subdivision c</u>	<u>Subdivision d</u>	<u>Subdivision i</u>
1. <u>Environmental protection agency hazardous waste and manifest numbers of first shipment.</u>	√	√	√	√
2. <u>Statement: This waste is not prohibited from land disposal.</u>			√	
3. <u>The waste is subject to the land disposal restrictions. The constituents of concern for F001-F005, and F039, and underlying hazardous constituents in characteristic waste, 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.</u>	√	√		
4. <u>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).</u>	√	√		
5. <u>Waste analysis data (when available).</u>	√	√	√	
6. <u>Date the waste is subject to the prohibition.</u>			√	
7. <u>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.</u>	√		√	
8. <u>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.</u>	√	√		
9. <u>A certification is needed (see applicable section for exact wording).</u>		√		√

*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.
- g. If a generator determines that it is managing a prohibited waste that is excluded from the definition of hazardous or solid waste or 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 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 file.

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 as concentrations 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:

<u>Treatment Facility Paperwork Requirements Table</u>	
<u>Required Information</u>	<u>Subsection 2</u>
1. <u>Hazardous waste number or numbers and manifest number of first shipment.</u>	√
2. <u>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.</u>	√
3. <u>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).</u>	√
4. <u>Waste analysis data (when available).</u>	√
5. <u>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.</u>	√
6. <u>A certification is needed (see applicable section for exact wording).</u>	√

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

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

1. ~~The initial generator of a solid waste must determine each environmental protection agency 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 listing under sections 33-24-02-15 through 33-24-02-19. In addition, the waste will carry one or more of the waste codes under sections 33-24-02-10 through 33-24-02-14, where the waste exhibits a characteristic, except in the case when the treatment standard for the waste code listed in sections 33-24-02-15 through 33-24-02-19 operates in lieu of the treatment standard for the waste code under sections 33-24-02-10 through 33-24-02-14, as specified in subsection 2. If the generator determines that his waste displays a hazardous characteristic (and the waste is not a D004 through D011 waste, a high total organic carbon D001, or is not treated by CMBST, or RORGS of section 33-24-05-282, table 1), the generator must determine what underlying hazardous constituents (as defined in section 33-24-05-251), are reasonably expected to be present above the universal treatment standard specified in section 33-24-05-288.~~ 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, ~~except for those facilities discussed in subsection 6.~~ 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~~ 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) ~~For characteristic wastes other than those managed onsite in a wastewater treatment system subject to the Clean Water Act, zero-dischargers engaged in Clean Water Act equivalent treatment, or class I nonhazardous injection wells, the~~ The name and address of the permitted facility receiving the waste shipment; and
 - (2) ~~For all characteristic wastes, a description of the waste as initially generated, including the applicable environmental protection agency/state hazardous waste numbers, treatability groups, and underlying hazardous constituents.~~ 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.
 - (3) ~~The treatment standards applicable to the waste at the point of generation.~~

- b. The certification must be signed by an authorized representative and must state the language specified in subdivision e d of subsection 2 of section 33-24-05-256.
 - (1) If treatment removes the characteristic but does not ~~treat~~ meet standards applicable to underlying hazardous constituents, then the certification found in paragraph 4 of subdivision e d of subsection 2 of section 33-24-05-256 ~~apply~~ applies.
 - (2) [Reserved]
- ~~c. For characteristic wastes whose ultimate disposal will be into a class 1 nonhazardous injection well, and compliance with the treatment standards found in section 33-24-05-288 for underlying hazardous constituents is achieved through pollution prevention that meets the criteria set out at 40 CFR 148.1(d), the following information must also be included:~~
 - ~~(1) A description of the pollution prevention mechanism and when it was implemented if already complete;~~
 - ~~(2) The mass of each underlying hazardous constituent before pollution prevention;~~
 - ~~(3) The mass of each underlying hazardous constituent that must be removed, adjusted to reflect variations in mass due to normal operating conditions; and~~
 - ~~(4) The mass reduction of each underlying hazardous constituent that is achieved.~~
- 5. ~~For decharacterized wastes managed onsite in a wastewater treatment system subject to the Clean Water Act or zero-dischargers engaged in Clean Water Act equivalent treatment, compliance with the treatment standards found at section 33-24-05-288 must be monitored quarterly, unless the treatment is aggressive biological treatment, in which case compliance must be monitored annually. Monitoring results must be kept in onsite files for five years.~~
- 6. ~~For decharacterized wastes managed onsite in a wastewater treatment system subject to the Clean Water Act for which all underlying hazardous constituents (as defined in section 33-24-05-251), are addressed by a Clean Water Act permit, this compliance must be documented and this documentation must be kept in onsite files.~~
- 7. ~~For characteristic wastes whose ultimate disposal will be into a class I nonhazardous injection well which qualifies for the de minimis~~

~~exclusion described in section 33-24-05-250, information supporting that qualification must be kept in onsite files.~~

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

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

1. ~~Effective November 8, 1986, the spent solvent wastes specified in section 33-24-02-16 as hazardous waste numbers F001, F002, F003, F004, and F005 are prohibited under this chapter from land disposal (except in an injection well) unless one or more of the following conditions apply: 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.~~
 - a. ~~A generator of the solvent waste is a small quantity generator of one hundred to one thousand kilograms of hazardous waste per month;~~
 - b. ~~The solvent waste is generated from any response action taken under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 or any corrective action taken under the Resource Conservation and Recovery Act, except where the waste is contaminated soil or debris;~~
 - c. ~~The initial generator's solvent waste is a solvent water mixture, solvent containing sludge or solid, or solvent contaminated soil (non-Comprehensive Environmental Response, Compensation, and Liability Act or Resource Conservation and Recovery Act corrective action) containing less than one percent total F001-F005 solvent constituents listed in table CCWE of section 33-24-05-281; or~~
 - d. ~~The solvent waste is a residue from treating a waste described in subdivision a, b, or c of subsection 1; or the solvent waste is a residue from treating a waste not described in subdivision a, b, or c of subsection 1 provided such residue belongs to a different treatability group than the waste as initially generated and wastes belonging to such a treatability group are described in subdivision c of subsection 1.~~
2. ~~Effective November 8, 1988, the F001-F005 solvent wastes listed in subdivisions a, b, c, or d of subsection 1 are prohibited from land disposal: 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. ~~Effective November 8, 1990, the F001-F005 solvent wastes which are 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 required under subtitle C of the Resource Conservation and Recovery Act and the residues from treating these wastes are prohibited from land disposal. Between November 8, 1988, and November 8, 1990, these wastes 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. 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 subsection 1, 2, or 3 do not apply if: 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; 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; or 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. ~~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 and units covered by the extension. 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 following condition applies:
 - a. ~~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 - ~~California list wastes~~
Soils exhibiting the toxicity characteristic for metals and containing polychlorinated biphenyls.**

- 1. ~~The following hazardous wastes are prohibited from land disposal (except in injection wells):~~
 - a. ~~Liquid hazardous wastes having a pH less than or equal to two.~~
 - b. ~~Liquid hazardous wastes containing polychlorinated biphenyls at concentrations greater than or equal to fifty parts per million.~~
 - c. ~~Liquid hazardous wastes that are primarily water and contain halogenated organic compounds in total concentration greater than or equal to one thousand milligram/liter and less than ten thousand milligram/liter halogenated organic compounds.~~
- 2. {Reserved}
- 3. {Reserved}
- 4. ~~The requirements of subsections 1 and 5 do not apply until:~~
 - a. ~~July 8, 1989, where the wastes are contaminated soil or debris not resulting from a response action taken under section 104 or 106 of the Comprehensive Environmental Response, Compensation, and Liability Act or a corrective action taken under subtitle C of the Resource Conservation and Recovery Act. Between July 8, 1987, and July 8, 1989, the wastes may be disposed in a landfill or surface impoundment only if such disposal is in compliance with the requirements specified in subdivision b of subsection 8 of section 33-24-05-254.~~
 - b. ~~November 8, 1990, where the wastes are contaminated soil or debris resulting from a response action taken under section 104 or 106 of the Comprehensive Environmental Response, Compensation, and Liability Act or a corrective action taken under subtitle C of the Resource Conservation and Recovery Act. Between November 8, 1988, and November 8, 1990, the wastes 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.~~

- ~~5. Effective November 8, 1988, the following hazardous wastes are prohibited from land disposal (subject to any regulations that may be promulgated with respect to disposal in injection wells):~~
 - ~~a. Liquid hazardous wastes that contain halogenated organic compounds in total concentration greater than or equal to one thousand milligram/1 and are not prohibited under subdivision c of subsection 1; and~~
 - ~~b. Nonliquid hazardous wastes containing halogenated organic compounds in total concentration greater than or equal to one thousand/kilograms and are not wastes described in subsection 4.~~
- ~~6. Between July 8, 1987 and November 8, 1988, the wastes included in subdivisions a and b of subsection 5 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.~~
- ~~7. The requirements of subsections 1, 4, and 5 do not apply if:~~
 - ~~a. 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 (except for liquid hazardous wastes containing polychlorinated biphenyls at concentrations greater than or equal to five hundred parts per million which are not eligible for such exemptions);~~
 - ~~b. 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;~~
 - ~~c. The wastes meet the applicable standards specified in sections 33-24-05-280 through 33-24-05-289 or, where treatment standards are not specified, the wastes are in compliance with the applicable prohibitions set forth in this section or Resource Conservation and Recovery Act 3004(d).~~
- ~~8. The prohibitions and effective dates specified in subdivision c of subsection 1 and subsections 4 and 5 do not apply where the waste is subject to prohibition under sections 33-24-05-270 through 33-24-05-279 and effective date for a specified halogenated organic compound (such as a hazardous waste chlorinated solvent, see for example, subsection 1 of section 33-24-05-270).~~

9. ~~To determine whether or not a waste is a liquid under subsections 1 and 5 and under Resource Conservation and Recovery Act section 3004(d), the following test must be used: Method 9095 (paint filter liquids test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", SW-846. (Incorporated by reference, see section 33-24-01-05.)~~
10. ~~Except as otherwise provided in this section, the waste analysis and recordkeeping requirements of section 33-24-05-256 are applicable to wastes prohibited under sections 33-24-05-250 through 33-24-05-299 or Resource Conservation and Recovery Act section 3004(d):~~
 - a. ~~The initial generator of a liquid hazardous waste must test the generator's waste (not an extract or filtrate) in accordance with the procedure specified in subdivision a of subsection 1 of section 33-24-02-12, or use knowledge of the waste, to determine if the waste has a pH less than or equal to two. If the liquid waste has a pH less than or equal to two, it is restricted from land disposal and all requirements of sections 33-24-05-250 through 33-24-05-299 are applicable, except as otherwise specified in this section.~~
 - b. ~~The initial generator of either a liquid hazardous waste containing polychlorinated biphenyls or a liquid or nonliquid hazardous waste containing halogenated organic compounds shall test the generator's waste (not an extract or filtrate), or use knowledge of the waste, to determine whether the concentration levels in the waste equal or exceed the prohibition levels specified in this section. If the concentration of polychlorinated biphenyls or halogenated organic compounds in the waste is greater than or equal to the prohibition level specified in this section, the waste is restricted from land disposal and all requirements of sections 33-24-05-250 through 33-24-05-299 are applicable, except as otherwise specified in this section.~~
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 - ~~First third~~ Chlorinated aliphatic wastes.

- 1. ~~Effective August 8, 1988, the wastes specified in section 33-24-02-17 as hazardous waste numbers F006 (nonwastewater), K001, K004 wastes specified in subsection 1 of section 33-24-05-283, K008 wastes specified in subsection 1 of section 33-24-05-283, K016, K018, K019, K020, K021 wastes specified in subsection 1 of section 33-24-05-283, K022 (nonwastewater), K024, K025 nonwastewaters specified in subsection 1 of section 33-24-05-283, K030, K036 (nonwastewater), K037, K044, K045, nonexplosive K046 (nonwastewater), K047, K060 (nonwastewater), K061 (nonwastewaters containing less than fifteen percent zinc), K062, non CaSO_4 , K069 (nonwastewaters), K086 (solvent washes), K087, K099, K100 nonwastewaters specified in subsection 1 of section 33-24-05-283, K101 (wastewater), K101 (nonwastewater, low arsenic subcategory - less than one percent total arsenic), K102 (wastewater), K102 nonwastewater, low arsenic subcategory - less than one percent total arsenic), K103, and K104 are prohibited from land disposal (except in an injection well).~~
- a. ~~Effective August 8, 1988, and continuing until August 7, 1990, K061 wastes containing fifteen percent zinc or greater are prohibited from land disposal pursuant to the treatment standards specified~~

~~in section 33-24-05-281 applicable to K061 wastes that contain less than fifteen percent zinc.~~

- ~~2. Effective August 8, 1990, the waste specified in section 33-24-02-17 as hazardous waste number K071 is prohibited from land disposal.~~
- ~~3. Effective August 8, 1990, the waste specified in section 33-24-05-261 having a treatment standard in sections 33-24-05-280 through 33-24-05-289 based on incineration and which are contaminated soil and debris are prohibited from land disposal.~~
- ~~4. Between November 8, 1988, and August 8, 1990, wastes included in subsections 2 and 3 may be disposed of 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.~~
- ~~5. The requirements of subsections 1, 2, 3, and 4 do not apply if:~~
 - ~~a. The wastes meet the applicable 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; 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.~~
- ~~6. Between August 8, 1988 and May 8, 1990, the wastes specified for which treatment standards under sections 33-24-05-280 through 33-24-05-289 have not been promulgated, including those wastes which are subject to the statutory prohibitions of Resource Conservation and Recovery Act section 3004(d) or codified prohibitions under section 33-24-05-282, but not including wastes subject to a treatment standard under section 33-24-05-282, are prohibited from disposal in a landfill or surface impoundment unless a demonstration and certification have been submitted.~~
- ~~7. To determine whether a hazardous waste exceeds the applicable treatment standards specified in sections 33-24-05-281 and 33-24-05-283, the initial generator must test a representative sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable 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.~~

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 - Second-third Toxicity characteristic metal wastes.

1. ~~The following wastes specified in section 33-24-02-16 as hazardous waste numbers F010; F024; the wastes specified in 33-24-02-17 as hazardous waste numbers K005; K007; K009 (nonwastewaters); K010; K023; K027; K028; K029 (nonwastewaters); K036 (wastewaters); K038; K039; K040; K043; K093; K094; K095 (nonwastewaters); K096 (nonwastewaters); K113; K114; K115; K116; and the wastes specified in section 33-24-02-18 as hazardous waste numbers P013; P021; P029; P030; P039; P040; P041; P043; P044; P062; P063; P071; P074; P085; P089; P094; P097; P098; P099; P104; P106; P109; P111; P121; U028; U058; U069; U087; U088; U102; U107; U221; U223; and U235 are prohibited from land disposal. 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. ~~The following wastes specified in section 33-24-02-17 as hazardous waste numbers K009 (wastewaters); K011 (nonwastewaters); K013 (nonwastewaters); and K014 (nonwastewaters) are prohibited from land disposal except when they are underground injected pursuant to 40 CFR 148.14(f) and 148.15(d). 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. ~~The wastes specified in section 33-24-02-16 as hazardous waste numbers F006-cyanide (nonwastewater); F008; F009; F011 (wastewaters) and F012 (wastewaters) are prohibited from land disposal. 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.

- ~~a. The following waste specified in section 33-24-02-16 as hazardous waste number F007 is prohibited from land disposal except when it is underground injected pursuant to 40 CFR 148.14(f).~~
 - ~~b. The wastes F011 (nonwastewaters) and F012 (nonwastewaters) are prohibited from land disposal pursuant to the treatment standards specified in sections 33-24-05-281 and 33-24-05-283 applicable to F011 (nonwastewaters) and F012 (nonwastewaters).~~
4. Effective June 8, 1991, the wastes specified in this section having a treatment standard in sections 33-24-05-280 through 33-24-05-289 based on incineration, and which are contaminated soil and debris are prohibited from land disposal. 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. Between June 8, 1989, and June 8, 1991, (for wastes F007, F008, F009, F011, and F012 between June 8, 1989, and July 8, 1989) wastes included in subsections 3 and 4 may be disposed in a landfill or surface impoundment, regardless whether such unit is a new, replacement, or lateral expansion unit, only if such unit is in compliance with the technical requirements specified in subdivision b of subsection 8 of section 33-24-05-254. 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. ~~The requirements of subsections 1, 2, 3, and 4 do not apply if:~~
 - a. ~~The wastes meet the applicable standards specified in sections 33-24-05-280 through 33-24-05-289; or~~
 - 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. 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.~~
7. ~~The requirements of subsections 1, 2, and 3 do not apply if 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.~~
8. ~~Between June 8, 1989, and May 8, 1990, the wastes specified in section 33-24-05-262 for which treatment standards under sections 33-24-05-280 through 33-24-05-289 are not applicable, including California list wastes subject to the statutory prohibitions of Resource Conservation and Recovery Act section 3004(d) or codified prohibitions under section 33-24-05-272, are prohibited from disposal in a landfill or surface impoundment unless the wastes are the subject of a valid demonstration and certification.~~
9. ~~To determine whether a hazardous waste listed exceeds the applicable treatment standards specified in sections 33-24-05-281 and 33-24-05-283, the initial generator must test a representative sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable 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 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 - Third-third Petroleum refining wastes.

1. ~~Effective August 8, 1990, the following wastes specified in section 33-24-02-16 as hazardous waste numbers F002 (1,1,2-trichloroethane), F005 (benzene), F005 (2-ethoxy ethanol), F005 (2-nitropropane), F006 (wastewaters), F019, F025, and F039 (wastewaters); the wastes specified in section 33-24-02-17 as hazardous waste numbers K002; K003; K004 (wastewaters); K005 (wastewaters); K006; K008 (wastewaters); K011 (wastewaters); K013 (wastewaters); K014 (wastewaters); K015 (nonwastewaters); K017; K021 (wastewaters); K022 (wastewaters); K025 (wastewaters); K026; K029 (wastewaters); K031 (wastewaters); K032; K033; K034; K035; K041; K042; K046 (wastewaters, reactive nonwastewaters); K048 (wastewaters); K049 (wastewaters); K050 (wastewaters); K051 (wastewaters); K052 (wastewaters); K060 (wastewaters); K061 (wastewaters); and (high zinc subcategory greater than 15% zinc); K069 (wastewaters, calcium sulfate nonwastewaters); K073; K083; K084 (wastewaters); K085; K095 (wastewaters); K096 (wastewaters); K097; K098; K100 (wastewaters); K101 (wastewaters); K102 (wastewaters); K105; and K106 (wastewaters); the wastes specified in subsection 5 of section 33-24-02-18 as hazardous waste numbers P001; P002; P003; P004; P005; P006; P007; P008; P009; P010 (wastewaters); P011 (wastewaters); P012 (wastewaters); P014; P015; P016; P017; P018; P020; P022; P023; P024; P026; P027; P028; P031; P033; P034; P036 (wastewaters); P037; P038 (wastewaters); P042; P045; P046; P047; P048; P049; P050; P051; P054; P056; P057; P058; P059; P060; P064; P065 (wastewaters); P066; P067; P068; P069; P070; P072; P073; P075; P076; P077; P078; P081; P082; P084; P088; P092 (wastewaters); P093; P095; P096; P101; P102; P103; P105; P108; P110; P112; P113; P114; P115; P116; P118; P119; P120; P122; and P123; and the wastes specified in subsection 6 of section 33-24-02-18 as hazardous waste numbers U001; U002; U003; U004; U005; U006; U007; U008; U009; U010; U011; U012; U014; U015; U016; U017; U018; U019; U020; U021; U022; U023; U024; U025; U026; U027; U029; U030; U031; U032; U033; U034; U035; U036; U037; U038; U039; U041; U042; U043; U044; U045; U046; U047; U048; U049; U050; U051; U052; U053; U055; U056; U057; U059; U060; U061; U062; U063; U064; U066; U067; U068; U070; U071; U072; U073; U074; U075; U076; U077; U078; U079; U080; U081; U082; U083; U084; U085; U086; U089; U090; U091;~~

~~U092; U093; U094; U095; U096; U097; U098; U099; U101; U103; U105; U106; U108; U109; U110; U111; U112; U113; U114; U115; U116; U117; U118; U119; U120; U121; U122; U123; U124; U125; U126; U127; U128; U129; U130; U131; U132; U133; U134; U135; U136 (wastewaters); U137; U138; U140; U141; U142; U143; U144; U145; U146; U147; U148; U149; U150; U151 (wastewaters); U152; U153; U154; U155; U156; U157; U158; U159; U160; U161; U162; U163; U164; U165; U166; U167; U168; U169; U170; U171; U172; U173; U174; U176; U177; U178; U179; U180; U181; U182; U183; U184; U185; U186; U187; U188; U189; U191; U192; U193; U194; U196; U197; U200; U201; U202; U203; U204; U205; U206; U207; U208; U209; U210; U211; U213; U214; U215; U216; U217; U218; U219; U220; U222; U225; U226; U227; U228; U234; U236; U237; U238; U239; U240; U243; U244; U246; U247; U248; U249; and the following wastes identified as hazardous based on a characteristic alone: D001; D002; D003; D004 (wastewaters); D005; D006; D007; D008 (except for lead material stored before secondary smelting); D009 (wastewaters); D010; D011; D012; D013; D014; D015; D016; and D017 are prohibited from land disposal.~~

- ~~2. The following wastes specified in section 33-24-02-17 as hazardous waste numbers K048 (nonwastewaters), K049 (nonwastewaters), K050 (nonwastewaters), K051 (nonwastewaters), and K052 (nonwastewaters) are prohibited from land disposal.~~
- ~~3. Effective May 8, 1992, the following waste specified in section 33-24-02-16 as hazardous waste numbers F039 (nonwastewaters); the waste specified in section 33-24-02-17 as hazardous waste numbers K031 (nonwastewaters); K084 (nonwastewaters); K101 (nonwastewaters); K102 (nonwastewaters); K106 (nonwastewaters); the wastes specified in subsection 5 of section 33-24-02-18 as hazardous waste numbers P010 (nonwastewaters); P011 (nonwastewaters); P012 (nonwastewaters); P036 (nonwastewaters); P038 (nonwastewaters); P065 (nonwastewaters); P087; and P092 (nonwastewaters); the wastes specified in subsection 6 of section 33-24-02-18 as hazardous waste numbers U136 (nonwastewaters); and U151 (nonwastewaters); the following waste identified as hazardous based on a characteristic alone: D004 (nonwastewaters); and Resource Conservation and Recovery Act hazardous wastes that contain naturally occurring radioactive materials are prohibited from land disposal.~~
- ~~4. Effective May 8, 1992, hazardous wastes that are mixed radioactive/hazardous wastes are prohibited from land disposal, except as provided in subsection 5.~~
- ~~5. Subject to applicable prohibitions in sections 33-24-05-270 through 33-24-05-272, contaminated soil and debris are prohibited from land disposal as follows:~~

- a. ~~Effective May 8, 1994, debris that is contaminated with any characteristic waste for which treatment standards are established in sections 33-24-05-280 through 33-24-05-289, are prohibited from land disposal.~~
- b. ~~Effective May 8, 1994, mixed radioactive hazardous debris that is contaminated with any characteristic waste for which treatment standards are established in sections 33-24-05-280 through 33-24-05-289, are prohibited from land disposal.~~
- c. ~~Subdivisions a and b of subsection 5 shall not apply where the generator has failed to make a good faith effort to locate treatment capacity suitable for its waste, has not utilized such capacity as it has found to be available, or has failed to file a report as required by subsection 7 of section 33-24-05-254 by August 12, 1993 or within ninety days after the hazardous waste is generated (whichever is later) describing the generator's efforts to locate treatment capacity. Where subdivisions a and b of subsection 5 do not apply, all wastes described in these paragraphs are prohibited from land disposal effective May 8, 1993.~~
- d. ~~Effective May 8, 1993, hazardous soil contaminated with wastes specified in this section having treatment standards in sections 33-24-05-280 through 33-24-05-289 based on incineration, mercury retorting or vitrification, and soils contaminated with hazardous wastes that are mixed radioactive hazardous wastes, are prohibited from land disposal.~~
- e. ~~When used in subdivisions a and b of subsection 5, debris is defined as follows:~~
 - (1) ~~Debris as defined in subsection 1 of section 33-24-05-251; or~~
 - (2) ~~Nonfriable inorganic solids that are incapable of passing through a 9.5 millimeter standards sieve that require cutting, or crushing and grinding in mechanical sizing equipment prior to stabilization, limited to the following inorganic or metal materials:~~
 - (a) ~~Metal slags (either dross or scoria);~~
 - (b) ~~Glassified slag;~~
 - (c) ~~Glass;~~
 - (d) ~~Concrete (excluding cementitious or pozzolanic stabilized hazardous waste);~~
 - (e) ~~Masonry and refractory bricks;~~

- (f) ~~Metal cans, containers, drums, or tanks;~~
 - (g) ~~Metal nuts, bolts, pipes, pumps, valves, appliances, or industrial equipment; and~~
 - (h) ~~Scrap metal as defined in subdivision f of subsection 3 of section 33-24-02-01.~~
6. ~~Between May 8, 1990, and August 8, 1990, the wastes included in subsection 1 may be disposed of 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.~~
 7. ~~Between May 8, 1990, and November 8, 1990, wastes included in subsection 1 may be disposed of 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.~~
 8. ~~Between May 8, 1990, and May 8, 1992, wastes included in subsections 3, 4, and 5 may be disposed of 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.~~
 9. ~~The requirements of subsections 1, 2, 3, 4, and 5 do not apply if:~~
 - a. ~~The wastes meet the applicable 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 in units covered by the petition.~~
 - c. ~~The wastes meet the applicable alternate standards established pursuant to a petition granted under section 33-24-05-284.~~
 - 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.~~
 10. ~~To determine whether a hazardous waste exceeds the applicable treatment standards specified in sections 33-24-05-281 and 33-24-05-283, the initial generator must test a representative sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable 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.~~

- ~~11. Effective May 8, 1993, D008 lead materials stored before secondary smelting are prohibited from land disposal. On or before March 1, 1993, the owner or operator of each secondary lead smelting facility shall submit to the department the following: A binding contractual commitment to construct or otherwise provide capacity for storing such D008 wastes prior to smelting which complies with all applicable storage standards; documentation that the capacity to be provided will be sufficient to manage the entire quantity of such D008 wastes; and a detailed schedule for providing such capacity. Failure by a facility to submit such documentation shall render such D008 managed by that facility prohibited from land disposal effective March 1, 1993. In addition, no later than July 27, 1992, the owner or operator of each facility must place in the facility record documentation of the manner and location in which such wastes will be managed pending completion of such capacity, demonstrating that such management capacity will be adequate and complies with all applicable article 33-24 requirements.~~
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 - Newly-listed Inorganic chemical wastes.

- ~~1. Effective November 9, 1992, the wastes specified in section 33-24-02-17 as hazardous waste numbers K107, K108, K109, K110, K111, K112, K117, K118, K123, K124, K125, K126, K131, K132, and K136; and the wastes specified in subsection 6 of section 33-24-02-18 as hazardous waste numbers U328, U353, and U359 are prohibited from land disposal.~~
- ~~2. Effective June 30, 1993, the wastes specified in section 33-24-02-16 as hazardous waste numbers F037 and F038 that are not generated from surface impoundment cleanouts or closures are prohibited from land disposal.~~
- ~~3. Effective June 30, 1994, the wastes specified in section 33-24-02-16 as hazardous waste numbers F037 and F038 that are generated from surface impoundment cleanouts or closures are prohibited from land disposal.~~
- ~~4. Effective June 30, 1994, radioactive wastes that are mixed with hazardous wastes specified in section 33-24-02-16 as hazardous waste numbers F037 and F038; the wastes specified in section 33-24-02-17 as hazardous waste numbers K107, K108, K109, K110, K111, K112, K117, K118, K123, K124, K125, K126, K131, K132, and K136; or the wastes specified in subsection 6 of section 33-24-02-18 as hazardous waste numbers U328, U353, and U359 are prohibited from land disposal.~~
- ~~5. Effective June 30, 1994, debris contaminated with hazardous wastes specified in section 33-24-02-16 as hazardous waste numbers F037 and F038; the wastes specified in section 33-24-02-17 as hazardous waste numbers K107, K108, K109, K110, K111, K112, K117, K118, K123, K124, K125, K126, K131, K132, and K136; or the wastes specified in subsection 6 of section 33-24-02-18 as hazardous waste numbers U328, U353, and U359; and which is not contaminated with any other waste already subject to a prohibition are prohibited from land disposal.~~

- ~~6. Between June 30, 1992 and June 30, 1993, the wastes included in subsection 2 may be disposed of in a landfill, only if such unit is in compliance with the requirements specified in subdivision b of subsection 8 of section 33-24-05-254, and may be generated in and disposed of in a surface impoundment only if such unit is in compliance with either subdivision b of subsection 8 of section 33-24-05-254 or section 33-24-05-265.~~
- ~~7. Between June 30, 1992 and June 30, 1994, the wastes included in subsections 4 and 5 may be disposed of in a landfill only if such unit is in compliance with the requirements specified in subdivision b of subsection 8 of section 33-24-05-254, and may be generated in and disposed of in a surface impoundment only if such unit is in compliance with either subdivision b of subsection 8 of section 33-24-05-254 or section 33-24-05-265.~~
- ~~8. The requirements of subsections 1 through 5 do not apply if:~~
 - ~~a. The wastes meet the applicable 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 standards established pursuant to a petition granted under section 33-24-05-284;~~
 - ~~d. Persons have been granted an extension to the effective date of a prohibition pursuant to section 33-24-05-254, with respect to the wastes covered by the extension.~~
- ~~9. To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in sections 33-24-05-281 and 33-24-05-283, the initial generator must test a representative sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable levels in 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.~~
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

33-24-05-278. 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 ~~environmental protection agency/state~~ hazardous waste numbers K141, K142, K143, K144, K145, K147, K148, K149, K150, and K151 are prohibited from land disposal. In addition, debris contaminated with ~~environmental protection agency/state~~ 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 ~~environmental protection agency/state~~ 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 ~~33-24-05-272~~ 33-24-02-17 as ~~environmental protection agency/state~~ hazardous waste numbers K156 through K159, and K161; and in section 33-24-02-18 as ~~environmental protection agency/state~~ hazardous waste numbers P127, P128, P185, P188 through P192, P194, P196 through P199, P201 through P205, U271, ~~U277~~ U278 through U280, U364 through U367, U372, U373, ~~U375 through U379, U381 through~~ U387, U389 through ~~U396, U400 through~~ U394, U395, U404, ~~U407,~~ 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 ~~January 8, 1997~~ September 21, 1998, the wastes specified in section 33-24-02-17 as ~~environmental protection agency/state~~ 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, ~~U277~~ U278 through U280, ~~U364 through~~, U367, U372, U373, ~~U375 through U379~~, U381 through U387, U389 through ~~U396~~, ~~U400 through~~, U394, U395, U404, ~~U407~~, 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, 2, 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"); ~~or~~
 - 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 ~~of subsection 4~~ 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, D002, D003, and D012~~ 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 9 10 of section 33-24-05-251) must meet universal treatment standards, found in section 33-24-05-288, ~~table universal treatment standards~~ "Universal Treatment Standards", prior to land disposal as defined in subsection ~~3 6~~ of section 33-24-05-251.
 - ~~a. When these wastes are managed in wastewater treatment systems regulated by the Clean Water Act, compliance with the treatment standards must be achieved no later than "end-of-pipe" as defined in subsection 11 of section 33-24-05-251; or~~
 - ~~b. When these wastes are managed in Clean Water Act-equivalent treatment systems and tank-based systems that discharge onto the land, compliance with the treatment standards must be achieved no later than the point the wastewater is released to the land (for example, spray irrigation, discharge to dry riverbeds, placed into evaporation ponds); or~~

- ~~c. When these wastes are managed in class I nonhazardous injection wells, compliance with the treatment standards must be achieved no later than the well head; or~~
 - ~~d. For all other, compliance with the treatment standard must be met prior to land disposal as defined in subsection 3 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 ~~August 26, 1997~~ March 4, 1999, the treatment standards for the wastes specified in section 33-24-02-17 as ~~environmental protection agency~~ hazardous waste numbers K156 through K159 and K161; and in section 33-24-02-18 as ~~environmental protection agency~~ 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.
11. Effective September 4, 1998, the treatment standards for the wastes specified in section 33-24-02-17 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", or by treating the waste by the following technologies: combustion, as defined by the technology code CMBST at 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 as technology code CMBST at table 1 of section 33-24-05-282, for wastewaters.

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³, or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
D001 ⁹	<u>Ignitable characteristic wastes, except for the subdivision a of subsection 1 of section 33-24-02-11, high total organic carbon subcategory.</u>	NA	NA	<u>DEACT and meet section 33-24-05-288 standards⁸, or RORGS; or CMBST</u>	<u>DEACT and meet section 33-24-05-288 standards⁸, or RORGS; or CMBST</u>
	<u>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.)</u>	NA	NA	NA	<u>RORGS; CMBST; or POLYM</u>
D002 ⁹	<u>Corrosive characteristic wastes.</u>	NA	NA	<u>DEACT and meet section 33-24-05-288 standards⁸</u>	<u>DEACT and meet section 33-24-05-288 standards⁸</u>
D002, D004, D005, D006, D007, D008, D009, D010, D011	<u>Radioactive high level wastes generated during the reprocessing of fuel rods. (Note: This subcategory consists of nonwastewaters only.)</u>	<u>Corrosivity (pH)</u>	NA	NA	HLVIT
		<u>Arsenic</u>	<u>7440-38-2</u>	NA	HLVIT
		<u>Barium</u>	<u>7440-39-3</u>	NA	HLVIT
		<u>Cadmium</u>	<u>7440-43-9</u>	NA	HLVIT
		<u>Chromium (Total)</u>	<u>7440-47-3</u>	NA	HLVIT
		<u>Lead</u>	<u>7439-92-1</u>	NA	HLVIT

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³, or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
491		Mercury	7439-97-6	NA	HLVIT
		Selenium	7782-49-2	NA	HLVIT
		Silver	7440-22-4	NA	HLVIT
	D003 ³ <u>Reactive sulfides subcategory based on subdivision e of subsection 1 of section 33-24-02-13.</u>	NA	NA	DEACT	DEACT
	<u>Explosives subcategory based on subdivisions f, g, and h of subsection 1 of section 33-24-02-13.</u>	NA	NA	DEACT and meet section 33-24-05-288 standards ⁸	DEACT and meet section 33-24-05-288 standards ⁸
	<u>Unexploded ordnance and other explosive devices which have been the subject of an emergency response.</u>	NA	NA	DEACT	DEACT
	<u>Other reactives subcategory based on subdivision a of subsection 1 of section 33-24-02-13.</u>	NA	NA	DEACT and meet section 33-24-05-288 standards ⁸	DEACT and meet section 33-24-05-288 standards ⁸
	<u>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.)</u>	NA	NA	NA	DEACT and meet section 33-24-05-288 standards ⁸
	<u>Reactive cyanides subcategory based on subdivision e of subsection 1 of section 33-24-02-13.</u>	Cyanides (Total) ⁷	57-12-5	Reserved	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
D004 ³	<u>Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for arsenic based on the toxicity characteristic leaching procedure (TCLP) in SW846.</u>	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

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<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP": or Technology Code</u>
<u>D005⁹</u>	<u>Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for barium based on the toxicity characteristic leaching procedure (TCLP) in SW846.</u>	<u>Barium</u>	<u>7440-39-3</u>	<u>1.2 and meet section 33-24-05-288 standards⁸</u>	<u>2.1 mg/l TCLP and meet section 33-24-05-288 standards⁸</u>
<u>D006⁹</u>	<u>Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for cadmium based on the toxicity characteristic leaching procedure (TCLP) in SW846.</u>	<u>Cadmium</u>	<u>7440-43-9</u>	<u>0.69 and meet section 33-24-05-288 standards⁸</u>	<u>0.11 mg/l TCLP and meet section 33-24-05-288 standards⁸</u>
	<u>Cadmium containing batteries subcategory (Note: This subcategory consists of nonwastewaters only.)</u>	<u>Cadmium</u>	<u>7440-43-9</u>	<u>NA</u>	<u>RTHRM</u>
	<u>Radioactively contaminated cadmium containing batteries. (Note: This subcategory consists of nonwastewaters only.)</u>	<u>Cadmium</u>	<u>7440-43-9</u>	<u>NA</u>	<u>Macroencapsulation in accordance with section 33-24-05-285</u>
<u>D007⁹</u>	<u>Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for chromium based on the toxicity characteristic leaching procedure (TCLP) in SW846.</u>	<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77 and meet section 33-24-05-288 standards⁸</u>	<u>0.60 mg/l TCLP and meet section 33-24-05-288 standards⁸</u>
<u>D008⁹</u>	<u>Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for lead based on the toxicity characteristic leaching procedure (TCLP) in SW846.</u>	<u>Lead</u>	<u>7439-92-1</u>	<u>0.69 and meet section 33-24-05-288 standards⁸</u>	<u>0.75 mg/l TCLP and meet section 33-24-05-288 standards⁸</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
493	<u>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.)</u>	<u>Lead</u>	<u>7439-92-1</u>	<u>NA</u>	<u>RLEAD</u>
	<u>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.)</u>	<u>Lead</u>	<u>7439-92-1</u>	<u>NA</u>	<u>MACRO</u>
	<u>D009⁹ 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).</u>	<u>Mercury</u>	<u>7439-97-6</u>	<u>NA</u>	<u>IMERC; OR RMERC</u>

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
494	<u>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).</u>	<u>Mercury</u>	<u>7439-97-6</u>	<u>NA</u>	<u>RMERC</u>
	<u>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).</u>	<u>Mercury</u>	<u>7439-97-6</u>	<u>NA</u>	<u>0.20 mg/l TCLP and meet section 33-24-05-288 standards⁶</u>
	<u>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).</u>	<u>Mercury</u>	<u>7439-97-6</u>	<u>NA</u>	<u>0.25 mg/l TCLP and meet section 33-24-05-288 standards⁶</u>
	<u>All D009 wastewaters.</u>	<u>Mercury</u>	<u>7439-97-6</u>	<u>0.15</u>	<u>NA</u>
	<u>Elemental mercury contaminated with radioactive materials. (Note: This subcategory consists of nonwastewaters only.)</u>	<u>Mercury</u>	<u>7439-97-6</u>	<u>NA</u>	<u>AMLGM</u>
	<u>Hydraulic oil contaminated with mercury radioactive materials subcategory. (Note: This subcategory consists of nonwastewaters only.)</u>	<u>Mercury</u>	<u>7439-97-6</u>	<u>NA</u>	<u>IMERC</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP": or Technology Code</u>
	<u>Radioactively contaminated mercury containing batteries. (Note: This subcategory consists of nonwastewaters only.)</u>	<u>Mercury</u>	<u>7439-97-6</u>	<u>NA</u>	<u>Macroencapsulation in accordance with section 33-24-05-285</u>
<u>D010⁹</u>	<u>Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for selenium based on the toxicity characteristic leaching procedure (TCLP) in SW846.</u>	<u>Selenium</u>	<u>7782-49-2</u>	<u>0.82 and meet section 33-24-05-288 standards⁸</u>	<u>5.7 mg/l TCLP and meet section 33-24-05-288 standards⁸</u>
<u>D011⁹</u>	<u>Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for silver based on the toxicity characteristic leaching procedure (TCLP) in SW846.</u>	<u>Silver</u>	<u>7440-22-4</u>	<u>0.43 and meet section 33-24-05-288 standards⁸</u>	<u>0.14 mg/l TCLP and meet section 33-24-05-288 standards⁸</u>
	<u>Radioactively contaminated silver containing batteries. (Note: This subcategory consists of nonwastewaters only.)</u>	<u>Silver</u>	<u>7440-22-4</u>	<u>NA</u>	<u>Macroencapsulation in accordance with section 33-24-05-285</u>
<u>D012⁹</u>	<u>Wastes that are toxicity characteristic for endrin based on the toxicity characteristic leaching procedure in SW846 Method 1311.</u>	<u>Endrin</u>	<u>72-20-8</u>	<u>BIODG; or CMBST</u>	<u>0.13 and meet section 33-24-05-288 standards⁸</u>
		<u>Endrin aldehyde</u>	<u>7421-93-4</u>	<u>BIODG; or CMBST</u>	<u>0.13 and meet section 33-24-05-288 standards⁸</u>
<u>D013⁹</u>	<u>Wastes that are toxicity characteristic for lindane based on the toxicity characteristic leaching procedure in SW846 Method 1311.</u>	<u>alpha-BHC</u>	<u>319-84-6</u>	<u>CARBN; or CMBST</u>	<u>0.066 and meet section 33-24-05-288 standards⁸</u>
		<u>beta-BHC</u>	<u>319-85-7</u>	<u>CARBN; or CMBST</u>	<u>0.066 and meet section 33-24-05-288 standards⁸</u>
		<u>delta-BHC</u>	<u>319-86-8</u>	<u>CARBN; or CMBST</u>	<u>0.066 and meet section 33-24-05-288 standards⁸</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

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<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³, or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
		gamma-BHC (Lindane)	58-89-9	CARBN; or CMBST	0.066 and meet section 33-24-05-288 standards ⁸
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-dichlorobenzene 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

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
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

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<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³; or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
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

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
500	F001, F002, F003, F004 and/or F005 solvent wastes that contain any combination of one or more of the following spent solvents: acetone, benzene, n-butyl alcohol, carbon disulfide, carbon tetrachloride, chlorinated fluorocarbons, chlorobenzene, o-cresol, m-cresol, p-cresol, cyclohexanone, o-dichlorobenzene, 2-ethoxyethanol, ethyl acetate, ethyl benzene, ethyl ether, isobutyl alcohol, methanol, methylene chloride, methyl ethyl ketone, methyl isobutyl ketone, nitrobenzene, 2-nitropropane, pyridine, tetrachloroethylene, toluene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,1,2-trichloro-1,2,2-trifluoroethane, trichloroethylene, trichloromono fluoromethane, 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

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³, or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
		<u>p-Cresol (difficult to distinguish from m-cresol)</u>	<u>106-44-5</u>	<u>0.77</u>	<u>5.6</u>
		<u>Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)</u>	<u>1319-77-3</u>		
		<u>Cyclohexanone</u>	<u>108-94-1</u>	<u>0.36</u>	<u>NA</u>
		<u>o-Dichlorobenzene</u>	<u>95-50-1</u>	<u>0.088</u>	<u>6.0</u>
		<u>Ethyl acetate</u>	<u>141-78-6</u>	<u>0.34</u>	<u>33</u>
		<u>Ethyl benzene</u>	<u>100-41-4</u>	<u>0.057</u>	<u>10</u>
		<u>Ethyl ether</u>	<u>60-29-7</u>	<u>0.12</u>	<u>160</u>
		<u>Isobutyl alcohol</u>	<u>78-83-1</u>	<u>5.6</u>	<u>170</u>
		<u>Methanol</u>	<u>67-56-1</u>	<u>5.6</u>	<u>NA</u>
		<u>Methylene chloride</u>	<u>75-9-2</u>	<u>0.089</u>	<u>30</u>
		<u>Methyl ethyl ketone</u>	<u>78-93-3</u>	<u>0.28</u>	<u>36</u>
		<u>Methyl isobutyl ketone</u>	<u>108-10-1</u>	<u>0.14</u>	<u>33</u>
		<u>Nitrobenzene</u>	<u>98-95-3</u>	<u>0.068</u>	<u>14</u>
		<u>Pyridine</u>	<u>110-86-1</u>	<u>0.014</u>	<u>16</u>
		<u>Tetrachloroethylene</u>	<u>127-18-4</u>	<u>0.056</u>	<u>6.0</u>
		<u>Toluene</u>	<u>108-88-3</u>	<u>0.080</u>	<u>10</u>
		<u>1,1,1-Trichloroethane</u>	<u>71-55-6</u>	<u>0.054</u>	<u>6.0</u>
		<u>1,1,2-Trichloroethane</u>	<u>79-00-5</u>	<u>0.054</u>	<u>6.0</u>
		<u>1,1,2-Trichloro-1,2,2-trifluoroethane</u>	<u>76-13-1</u>	<u>0.057</u>	<u>30</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

502

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u> <u>Common Name</u>	<u>CAS²No.</u>	<u>Wastewaters</u> <u>Concentration mg/l³ or Technology Code⁴</u>	<u>Nonwastewaters</u> <u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP": or Technology Code</u>
		<u>Trichloroethylene</u>	<u>79-01-6</u>	<u>0.054</u>	<u>6.0</u>
		<u>Trichloromonofluoromethane</u>	<u>75-69-4</u>	<u>0.020</u>	<u>30</u>
		<u>Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)</u>	<u>1330-20-7</u>	<u>0.32</u>	<u>30</u>
	<u>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).</u>	<u>Carbon disulfide</u>	<u>75-15-0</u>	<u>3.8</u>	<u>4.8 mg/l TCLP</u>
		<u>Cyclohexanone</u>	<u>108-94-1</u>	<u>0.36</u>	<u>0.75 mg/l TCLP</u>
		<u>Methanol</u>	<u>67-56-1</u>	<u>5.6</u>	<u>0.75 mg/l TCLP</u>
	<u>F005 solvent waste containing 2-nitropropane as the only listed F001-F005 solvent.</u>	<u>2-Nitropropane</u>	<u>79-46-9</u>	<u>(WETOX or CHOXD) ft CARBN; or CMBST</u>	<u>CMBST</u>
	<u>F005 solvent waste containing 2-ethoxyethanol as the only listed F001-F005 solvent.</u>	<u>2-Ethoxyethanol</u>	<u>110-80-5</u>	<u>BIODG; or CMBST</u>	<u>CMBST</u>
<u>F006</u>	<u>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.</u>	<u>Cadmium</u>	<u>7440-43-9</u>	<u>.069</u>	<u>0.11 mg/l TCLP</u>
		<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>
		<u>Cyanides (Total)⁷</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
		<u>Cyanides (Amenable)⁷</u>	<u>57-12-5</u>	<u>0.86</u>	<u>30</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

503

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
F007	<u>Spent cyanide plating bath solutions from electroplating operations.</u>	<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>0.75 mg/l TCLP</u>
		<u>Nickel</u>	<u>7440-02-0</u>	<u>3.98</u>	<u>11.0 mg/l TCLP</u>
		<u>Silver</u>	<u>7440-22-4</u>	<u>NA</u>	<u>0.14 mg/l TCLP</u>
		<u>Cadmium</u>	<u>7440-43-9</u>	<u>NA</u>	<u>0.11 mg/l TCLP</u>
		<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>
		<u>Cyanides (Total)⁷</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
		<u>Cyanides (Amenable)⁷</u>	<u>57-12-5</u>	<u>0.86</u>	<u>30</u>
		<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>0.75 mg/l TCLP</u>
		<u>Nickel</u>	<u>7440-02-0</u>	<u>3.98</u>	<u>11.0 mg/l TCLP</u>
		<u>Silver</u>	<u>7440-22-4</u>	<u>NA</u>	<u>0.14 mg/l TCLP</u>
F008	<u>Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.</u>	<u>Cadmium</u>	<u>7440-31-9</u>	<u>NA</u>	<u>0.11 mg/l TCLP</u>
		<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>
		<u>Cyanides (Total)⁷</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
		<u>Cyanides (Amenable)⁷</u>	<u>57-12-5</u>	<u>0.86</u>	<u>30</u>
		<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>0.75 mg/l TCLP</u>
		<u>Nickel</u>	<u>7440-02-0</u>	<u>3.98</u>	<u>11.0 mg/l TCLP</u>
		<u>Silver</u>	<u>7440-22-4</u>	<u>NA</u>	<u>0.14 mg/l TCLP</u>
		<u>Cadmium</u>	<u>7440-43-9</u>	<u>NA</u>	<u>0.11 mg/l TCLP</u>
		<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60mg/l TCLP</u>
F009	<u>Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.</u>	<u>Cadmium</u>	<u>7440-43-9</u>	<u>NA</u>	<u>0.11 mg/l TCLP</u>
		<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60mg/l TCLP</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

504

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³, or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
F010	<u>Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.</u>	<u>Cyanides (Total)^Z</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
		<u>Cyanides (Amenable)^Z</u>	<u>57-12-5</u>	<u>0.86</u>	<u>30</u>
		<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>0.75 mg/l TCLP</u>
		<u>Nickel</u>	<u>7440-02-0</u>	<u>3.98</u>	<u>11.0 mg/l TCLP</u>
		<u>Silver</u>	<u>7440-22-4</u>	<u>NA</u>	<u>0.14 mg/l TCLP</u>
	<u>Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.</u>	<u>Cyanides (Total)^Z</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
		<u>Cyanides (Amenable)^Z</u>	<u>57-12-5</u>	<u>0.86</u>	<u>NA</u>
		<u>Cadmium</u>	<u>7440-43-9</u>	<u>NA</u>	<u>0.11 mg/l TCLP</u>
		<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>
		<u>Cyanides (Total)^Z</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
F012	<u>Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.</u>	<u>Cyanides (Amenable)^Z</u>	<u>57-12-5</u>	<u>0.86</u>	<u>30</u>
		<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>0.75 mg/l TCLP</u>
		<u>Nickel</u>	<u>7440-02-0</u>	<u>3.98</u>	<u>11.0 mg/l TCLP</u>
		<u>Silver</u>	<u>7440-22-4</u>	<u>NA</u>	<u>0.14 mg/l TCLP</u>
		<u>Cadmium</u>	<u>7440-43-9</u>	<u>NA</u>	<u>0.11 mg/l TCLP</u>
	<u>Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.</u>	<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>
		<u>Cyanides (Total)^Z</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
		<u>Cyanides (Amenable)^Z</u>	<u>57-12-5</u>	<u>0.86</u>	<u>30</u>
		<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>0.75 mg/l TCLP</u>
		<u>Cyanides (Total)^Z</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

505

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³; or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
F019	<u>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.</u>	Nickel	7440-02-0	3.98	11.0 mg/l TCLP
		Silver	7440-22-4	NA	0.14 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Cyanides (Total) ⁶	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
F020, F021, F022, F023, F026	<u>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).</u>	<u>HxCDDs (All Hexachlorodibenzo-p-dioxins)</u>	NA	0.000063	0.001

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
		<u>HxCDFs (All Hexachlorodibenzofurans)</u>	<u>NA</u>	<u>0.000063</u>	<u>0.001</u>
		<u>PeCDDs (All Pentachlorodibenzo-p-dioxins)</u>	<u>NA</u>	<u>0.000063</u>	<u>0.001</u>
		<u>PeCDFs (All Pentachlorodibenzofurans)</u>	<u>NA</u>	<u>0.000035</u>	<u>0.001</u>
		<u>Pentachlorophenol</u>	<u>87-86-5</u>	<u>0.089</u>	<u>7.4</u>
		<u>TCDDs (All Tetrachlorodibenzo-p-dioxins)</u>	<u>NA</u>	<u>0.000063</u>	<u>0.001</u>
		<u>TCDFs (All Tetrachlorodibenzofurans)</u>	<u>NA</u>	<u>0.000063</u>	<u>0.001</u>
		<u>2,4,5-Trichlorophenol</u>	<u>95-95-4</u>	<u>0.18</u>	<u>7.4</u>
		<u>2,4,6-Trichlorophenol</u>	<u>88-06-2</u>	<u>0.035</u>	<u>7.4</u>
		<u>2,3,4,6-Tetrachlorophenol</u>	<u>58-90-2</u>	<u>0.030</u>	<u>7.4</u>
<u>F024</u>	<u>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.)</u>	<u>All F024 Wastes</u>	<u>NA</u>	<u>CMBST¹¹</u>	<u>CMBST¹¹</u>
		<u>2-Chloro-1,3-butadiene</u>	<u>126-99-8</u>	<u>0.057</u>	<u>0.28</u>
		<u>3-Chloropropylene</u>	<u>107-05-1</u>	<u>0.036</u>	<u>30</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³, or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
F025	<u>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.</u> <u>F025 - Light ends subcategory.</u>	<u>1,1-Dichloroethane</u>	<u>75-34-3</u>	<u>0.059</u>	<u>6.0</u>
		<u>1,2-Dichloroethane</u>	<u>107-06-2</u>	<u>0.21</u>	<u>6.0</u>
		<u>1,2-Dichloropropane</u>	<u>78-87-5</u>	<u>0.85</u>	<u>18</u>
		<u>cis-1,3-Dichloropropylene</u>	<u>10061-01-5</u>	<u>0.036</u>	<u>18</u>
		<u>trans-1,3-Dichloropropylene</u>	<u>10061-02-6</u>	<u>0.036</u>	<u>18</u>
		<u>bis(2-Ethylhexyl) phthalate</u>	<u>117-81-7</u>	<u>0.28</u>	<u>28</u>
		<u>Hexachloroethane</u>	<u>67-72-1</u>	<u>0.055</u>	<u>30</u>
		<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>
		<u>Nickel</u>	<u>7440-02-0</u>	<u>3.98</u>	<u>11.0 mg/l TCLP</u>
		<u>Carbon tetrachloride</u>	<u>56-23-5</u>	<u>0.057</u>	<u>6.0</u>
		<u>Chloroform</u>	<u>67-66-3</u>	<u>0.046</u>	<u>6.0</u>
		<u>1,2-Dichloroethane</u>	<u>107-06-2</u>	<u>0.21</u>	<u>6.0</u>
		<u>1,1-Dichloroethylene</u>	<u>75-35-4</u>	<u>0.025</u>	<u>6.0</u>
		<u>Methylene chloride</u>	<u>75-9-2</u>	<u>0.089</u>	<u>30</u>
		<u>1,1,2-Trichloroethane</u>	<u>79-00-5</u>	<u>0.054</u>	<u>6.0</u>
		<u>Trichloroethylene</u>	<u>79-01-6</u>	<u>0.054</u>	<u>6.0</u>
		<u>Vinyl chloride</u>	<u>75-01-4</u>	<u>0.27</u>	<u>6.0</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP": or Technology Code</u>
508	<u>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.</u>	<u>Carbon tetrachloride</u>	<u>56-23-5</u>	<u>0.057</u>	<u>6.0</u>
		<u>Chloroform</u>	<u>67-66-3</u>	<u>0.046</u>	<u>6.0</u>
		<u>Hexachlorobenzene</u>	<u>118-74-1</u>	<u>0.055</u>	<u>10</u>
		<u>Hexachlorobutadiene</u>	<u>87-68-3</u>	<u>0.055</u>	<u>5.6</u>
		<u>Hexachloroethane</u>	<u>67-72-1</u>	<u>0.055</u>	<u>30</u>
		<u>Methylene chloride</u>	<u>75-9-2</u>	<u>0.089</u>	<u>30</u>
		<u>1,1,2-Trichloroethane</u>	<u>79-00-5</u>	<u>0.054</u>	<u>6.0</u>
		<u>Trichloroethylene</u>	<u>79-01-6</u>	<u>0.054</u>	<u>6.0</u>
		<u>Vinyl chloride</u>	<u>75-01-4</u>	<u>0.27</u>	<u>6.0</u>
		<u>HxCDDs (All Hexachlorodibenzo-p-dioxins)</u>	<u>NA</u>	<u>0.000063</u>	<u>0.001</u>
F027	<u>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).</u>	<u>HxCDFs (All Hexachlorodibenzofurans)</u>	<u>NA</u>	<u>0.000063</u>	<u>0.001</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³; or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with hazardous wastes numbers F020, F021, F023, F026, and F027.	<u>PeCDDs (All Pentachlorodibenzo-p-dioxins)</u>	<u>NA</u>	<u>0.000063</u>	<u>0.001</u>
		<u>PeCDFs (All Pentachlorodibenzofurans)</u>	<u>NA</u>	<u>0.000035</u>	<u>0.001</u>
		<u>Pentachlorophenol</u>	<u>87-86-5</u>	<u>0.089</u>	<u>7.4</u>
		<u>TCDDs (All Tetrachlorodibenzo-p-dioxins)</u>	<u>NA</u>	<u>0.000063</u>	<u>0.001</u>
		<u>TCDFs (All Tetrachlorodibenzofurans)</u>	<u>NA</u>	<u>0.000063</u>	<u>0.001</u>
		<u>2,4,5-Trichlorophenol</u>	<u>95-95-4</u>	<u>0.18</u>	<u>7.4</u>
		<u>2,4,6-Trichlorophenol</u>	<u>88-06-2</u>	<u>0.035</u>	<u>7.4</u>
		<u>2,3,4,6-Tetrachlorophenol</u>	<u>58-90-2</u>	<u>0.030</u>	<u>7.4</u>
		<u>HxCDDs (All Hexachlorodibenzo-p-dioxins)</u>	<u>NA</u>	<u>0.000063</u>	<u>0.001</u>
		<u>HxCDFs (All Hexachlorodibenzofurans)</u>	<u>NA</u>	<u>0.000063</u>	<u>0.001</u>
		<u>PeCDDs (All Pentachlorodibenzo-p-dioxins)</u>	<u>NA</u>	<u>0.000063</u>	<u>0.001</u>
		<u>PeCDFs (All Pentachlorodibenzofurans)</u>	<u>NA</u>	<u>0.000035</u>	<u>0.001</u>
		<u>Pentachlorophenol</u>	<u>87-86-5</u>	<u>0.089</u>	<u>7.4</u>
		<u>TCDDs (All Tetrachlorodibenzo-p-dioxins)</u>	<u>NA</u>	<u>0.000063</u>	<u>0.001</u>
		<u>TCDFs (All Tetrachlorodibenzofurans)</u>	<u>NA</u>	<u>0.000063</u>	<u>0.001</u>
		<u>2,4,5-Trichlorophenol</u>	<u>95-95-4</u>	<u>0.18</u>	<u>7.4</u>
		<u>2,4,6-Trichlorophenol</u>	<u>88-06-2</u>	<u>0.035</u>	<u>7.4</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
F032	<u>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.</u>	<u>2,3,4,6-Tetrachlorophenol</u>	<u>58-90-2</u>	<u>0.30</u>	<u>7.4</u>
		<u>Acenaphthene</u>	<u>83-32-9</u>	<u>0.059</u>	<u>3.4</u>
		<u>Anthracene</u>	<u>120-12-7</u>	<u>0.059</u>	<u>3.4</u>
		<u>Benz(a)anthracene</u>	<u>56-55-3</u>	<u>0.059</u>	<u>3.4</u>
		<u>Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)</u>	<u>205-99-2</u>	<u>0.11</u>	<u>6.8</u>
		<u>Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)</u>	<u>207-08-9</u>	<u>0.11</u>	<u>6.8</u>
		<u>Benzo(a)pyrene</u>	<u>50-32-8</u>	<u>0.061</u>	<u>3.4</u>
		<u>Chrysene</u>	<u>218-01-9</u>	<u>0.059</u>	<u>3.4</u>
		<u>Dibenz(a,h)anthracene</u>	<u>53-70-3</u>	<u>0.055</u>	<u>8.2</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³; or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
		<u>2,4-Dimethyl phenol</u>	<u>105-67-9</u>	<u>0.036</u>	<u>14</u>
		<u>Fluorene</u>	<u>86-73-7</u>	<u>0.059</u>	<u>3.4</u>
		<u>Hexachlorodibenzo-p-dioxins</u>	<u>NA</u>	<u>0.000063 or CMBST¹¹</u>	<u>0.001 or CMBST¹¹</u>
		<u>Hexachlorodibenzofurans</u>	<u>NA</u>	<u>0.000063 or CMBST¹¹</u>	<u>0.001 or CMBST¹¹</u>
		<u>Indeno (1,2,3-c,d) pyrene</u>	<u>193-39-5</u>	<u>0.0055</u>	<u>3.4</u>
		<u>Naphthalene</u>	<u>91-20-3</u>	<u>0.059</u>	<u>5.6</u>
		<u>Pentachlorodibenzo-p-dioxins</u>	<u>NA</u>	<u>0.000063 or CMBST¹¹</u>	<u>0.001 or CMBST¹¹</u>
		<u>Pentachlorodibenzofurans</u>	<u>NA</u>	<u>0.000035 or CMBST¹¹</u>	<u>0.001 or CMBST¹¹</u>
		<u>Pentachlorophenol</u>	<u>87-86-5</u>	<u>0.089</u>	<u>7.4</u>
		<u>Phenanthrene</u>	<u>85-01-8</u>	<u>0.059</u>	<u>5.6</u>
		<u>Phenol</u>	<u>108-95-2</u>	<u>0.039</u>	<u>6.2</u>
		<u>Pyrene</u>	<u>129-00-0</u>	<u>0.067</u>	<u>8.2</u>
		<u>Tetrachlorodibenzo-p-dioxins</u>	<u>NA</u>	<u>0.000063 or CMBST¹¹</u>	<u>0.001 or CMBST¹¹</u>
		<u>Tetrachlorodibenzofurans</u>	<u>NA</u>	<u>0.000063 or CMBST¹¹</u>	<u>0.001 or CMBST¹¹</u>
		<u>2,3,4,6-Tetrachlorophenol</u>	<u>58-90-2</u>	<u>0.030</u>	<u>7.4</u>
		<u>2,4,6-Trichlorophenol</u>	<u>88-06-2</u>	<u>0.035</u>	<u>7.4</u>
		<u>Arsenic</u>	<u>7440-38-2</u>	<u>1.4</u>	<u>5.0 mg/l TCLP</u>
		<u>Chromium (total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP", or Technology Code</u>
F034	<u>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.</u>	<u>Acenaphthene</u>	<u>83-32-9</u>	<u>0.059</u>	<u>3.4</u>
		<u>Anthracene</u>	<u>120-12-7</u>	<u>0.059</u>	<u>3.4</u>
		<u>Benz(a)anthracene</u>	<u>56-55-3</u>	<u>0.059</u>	<u>3.4</u>
		<u>Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)</u>	<u>205-99-2</u>	<u>0.11</u>	<u>6.8</u>
		<u>Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)</u>	<u>207-08-9</u>	<u>0.11</u>	<u>6.8</u>
		<u>Benzo(a)pyrene</u>	<u>50-32-8</u>	<u>0.061</u>	<u>3.4</u>
		<u>Chrysene</u>	<u>218-01-9</u>	<u>0.059</u>	<u>3.4</u>
		<u>Dibenz(a,h)anthracene</u>	<u>53-70-3</u>	<u>0.055</u>	<u>8.2</u>
		<u>Fluorene</u>	<u>86-73-7</u>	<u>0.059</u>	<u>3.4</u>
		<u>Indeno (1,2,3-c,d) pyrene</u>	<u>193-39-5</u>	<u>0.0055</u>	<u>3.4</u>
		<u>Naphthalene</u>	<u>91-20-3</u>	<u>0.059</u>	<u>5.6</u>
		<u>Phenanthrene</u>	<u>85-01-8</u>	<u>0.059</u>	<u>5.6</u>
		<u>Pyrene</u>	<u>129-00-0</u>	<u>0.067</u>	<u>8.2</u>
		<u>Arsenic</u>	<u>7440-38-2</u>	<u>1.4</u>	<u>5.0 mg/l TCLP</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³, or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
F035	<u>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.</u>	<u>Chromium (total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>
		<u>Arsenic</u>	<u>7440-38-2</u>	<u>1.4</u>	<u>5.0 mg/l TCLP</u>
		<u>Chromium (total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
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

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
		<u>Di-n-butyl phthalate</u>	<u>84-74-2</u>	<u>0.057</u>	<u>28</u>
		<u>Ethylbenzene</u>	<u>100-41-4</u>	<u>0.057</u>	<u>10</u>
		<u>Fluorene</u>	<u>86-73-7</u>	<u>0.059</u>	<u>NA</u>
		<u>Naphthalene</u>	<u>91-20-3</u>	<u>0.059</u>	<u>5.6</u>
		<u>Phenanthrene</u>	<u>85-01-8</u>	<u>0.059</u>	<u>5.6</u>
		<u>Phenol</u>	<u>108-95-2</u>	<u>0.039</u>	<u>6.2</u>
		<u>Pyrene</u>	<u>129-00-0</u>	<u>0.067</u>	<u>8.2</u>
		<u>Toluene</u>	<u>108-88-3</u>	<u>0.080</u>	<u>10</u>
		<u>Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)</u>	<u>1330-20-7</u>	<u>0.32</u>	<u>30</u>
		<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>
		<u>Cyanides (Total)⁷</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
		<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>NA</u>
		<u>Nickel</u>	<u>7440-02-0</u>	<u>NA</u>	<u>11.0 mg/l TCLP</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³, or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
F038	<u>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.</u>	<u>Benzene</u>	<u>71-43-2</u>	<u>0.14</u>	<u>10</u>
		<u>Benzo(a)pyrene</u>	<u>50-32-8</u>	<u>0.061</u>	<u>3.4</u>
		<u>bis(2-Ethylhexyl) phthalate</u>	<u>117-81-7</u>	<u>0.28</u>	<u>28</u>
		<u>Chrysene</u>	<u>218-01-9</u>	<u>0.059</u>	<u>3.4</u>
		<u>Di-n-butyl phthalate</u>	<u>84-74-2</u>	<u>0.057</u>	<u>28</u>
		<u>Ethylbenzene</u>	<u>100-41-4</u>	<u>0.057</u>	<u>10</u>
		<u>Fluorene</u>	<u>86-73-7</u>	<u>0.059</u>	<u>NA</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³, or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
		<u>Naphthalene</u>	<u>91-20-3</u>	<u>0.059</u>	<u>5.6</u>
		<u>Phenanthrene</u>	<u>85-01-8</u>	<u>0.059</u>	<u>5.6</u>
		<u>Phenol</u>	<u>108-95-2</u>	<u>0.039</u>	<u>6.2</u>
		<u>Pyrene</u>	<u>129-00-0</u>	<u>0.067</u>	<u>8.2</u>
		<u>Toluene</u>	<u>108-88-3</u>	<u>0.080</u>	<u>10</u>
		<u>Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)</u>	<u>1330-20-7</u>	<u>0.32</u>	<u>30</u>
		<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>
		<u>Cyanides (Total)⁷</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
		<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>NA</u>
		<u>Nickel</u>	<u>7440-02-0</u>	<u>NA</u>	<u>11.0 mg/l TCLP</u>
<u>F039</u>	<u>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).</u>	<u>Acenaphthylene</u>	<u>208-96-8</u>	<u>0.059</u>	<u>3.4</u>
		<u>Acenaphthene</u>	<u>83-32-9</u>	<u>0.059</u>	<u>3.4</u>
		<u>Acetone</u>	<u>67-64-1</u>	<u>0.28</u>	<u>160</u>
		<u>Acetonitrile</u>	<u>75-05-8</u>	<u>5.6</u>	<u>NA</u>
		<u>Acetophenone</u>	<u>96-86-2</u>	<u>0.010</u>	<u>9.7</u>
		<u>2-Acetylaminofluorene</u>	<u>53-96-3</u>	<u>0.059</u>	<u>140</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
		<u>Acrolein</u>	<u>107-02-8</u>	<u>0.29</u>	<u>NA</u>
		<u>Acrylonitrile</u>	<u>107-13-1</u>	<u>0.24</u>	<u>84</u>
		<u>Aldrin</u>	<u>309-00-2</u>	<u>0.021</u>	<u>0.066</u>
		<u>4-Aminobiphenyl</u>	<u>92-67-1</u>	<u>0.13</u>	<u>NA</u>
		<u>Aniline</u>	<u>62-53-3</u>	<u>0.81</u>	<u>14</u>
		<u>Anthracene</u>	<u>120-12-7</u>	<u>0.059</u>	<u>3.4</u>
		<u>Aramite</u>	<u>140-57-8</u>	<u>0.36</u>	<u>NA</u>
		<u>alpha-BHC</u>	<u>319-84-6</u>	<u>0.00014</u>	<u>0.066</u>
		<u>beta-BHC</u>	<u>319-85-7</u>	<u>0.00014</u>	<u>0.066</u>
		<u>delta-BHC</u>	<u>319-86-8</u>	<u>0.023</u>	<u>0.0.066</u>
		<u>gamma-BHC</u>	<u>58-89-9</u>	<u>0.0017</u>	<u>0.066</u>
		<u>Benzene</u>	<u>71-43-2</u>	<u>0.14</u>	<u>10</u>
		<u>Benz(a)anthracene</u>	<u>56-55-3</u>	<u>0.059</u>	<u>3.4</u>
		<u>Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)</u>	<u>205-99-2</u>	<u>0.11</u>	<u>6.8</u>
		<u>Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)</u>	<u>207-08-9</u>	<u>0.11</u>	<u>6.8</u>
		<u>Benzo(g,h,i)perylene</u>	<u>191-24-2</u>	<u>0.0055</u>	<u>1.8</u>
		<u>Benzo(a)pyrene</u>	<u>50-32-8</u>	<u>0.061</u>	<u>3.4</u>
		<u>Bromodichloromethane</u>	<u>75-27-4</u>	<u>0.35</u>	<u>15</u>
		<u>Methyl bromide (Bromomethane)</u>	<u>74-83-9</u>	<u>0.11</u>	<u>15</u>
		<u>4-Bromophenyl phenyl ether</u>	<u>101-55-3</u>	<u>0.055</u>	<u>15</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³, or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
		<u>n-Butyl alcohol</u>	<u>71-36-3</u>	<u>5.6</u>	<u>2.6</u>
		<u>Butyl benzyl phthalate</u>	<u>85-68-7</u>	<u>0.017</u>	<u>28</u>
		<u>2-sec-Butyl-4,6-dinitrophenol (Dinoseb)</u>	<u>88-85-7</u>	<u>0.066</u>	<u>2.5</u>
		<u>Carbondisulfide</u>	<u>75-15-0</u>	<u>3.8</u>	<u>NA</u>
		<u>Carbon tetrachloride</u>	<u>56-23-5</u>	<u>0.057</u>	<u>6.0</u>
		<u>Chlordane (alpha and gamma isomers)</u>	<u>57-74-9</u>	<u>0.0033</u>	<u>0.26</u>
		<u>p-Chloroaniline</u>	<u>106-47-8</u>	<u>0.46</u>	<u>16</u>
		<u>Chlorobenzene</u>	<u>108-90-7</u>	<u>0.057</u>	<u>6.0</u>
		<u>Chlorobenzilate</u>	<u>510-15-6</u>	<u>0.10</u>	<u>NA</u>
		<u>2-Chloro-1,3-butadiene</u>	<u>126-99-8</u>	<u>0.057</u>	<u>NA</u>
		<u>Chlorodibromomethane</u>	<u>124-48-1</u>	<u>0.057</u>	<u>15</u>
		<u>Chloroethane</u>	<u>75-00-3</u>	<u>0.27</u>	<u>6.0</u>
		<u>bis(2-Chloroethoxy)methane</u>	<u>111-91-1</u>	<u>0.036</u>	<u>7.2</u>
		<u>bis(2-Chloroethyl)ether</u>	<u>111-44-4</u>	<u>0.033</u>	<u>6.0</u>
		<u>Chloroform</u>	<u>67-66-3</u>	<u>0.046</u>	<u>6.0</u>
		<u>bis(2-Chloroisopropyl)ether</u>	<u>39638-32-9</u>	<u>0.055</u>	<u>7.2</u>
		<u>p-Chloro-m-cresol</u>	<u>59-50-7</u>	<u>0.018</u>	<u>14</u>
		<u>Chloromethane (Methyl chlorida)</u>	<u>74-87-3</u>	<u>0.19</u>	<u>30</u>
		<u>2-Chloronaphthalene</u>	<u>91-58-7</u>	<u>0.055</u>	<u>5.6</u>
		<u>2-Chlorophenol</u>	<u>95-57-8</u>	<u>0.044</u>	<u>5.7</u>
		<u>3-Chloropropylene</u>	<u>107-05-1</u>	<u>0.036</u>	<u>30</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/ TCLP"; or Technology Code</u>
		<u>Chrysene</u>	<u>218-01-9</u>	<u>0.059</u>	<u>3.4</u>
		<u>o-Cresol</u>	<u>95-48-7</u>	<u>0.11</u>	<u>5.6</u>
		<u>m-Cresol (difficult to distinguish from p-cresol)</u>	<u>108-39-4</u>	<u>0.77</u>	<u>5.6</u>
		<u>p-Cresol (difficult to distinguish from m-cresol)</u>	<u>106-44-5</u>	<u>0.77</u>	<u>5.6</u>
		<u>Cyclohexanone</u>	<u>108-94-1</u>	<u>0.36</u>	<u>NA</u>
		<u>1,2-Dibromo-3-chloropropane</u>	<u>96-12-8</u>	<u>0.11</u>	<u>15</u>
		<u>Ethylene dibromide (1,2-Dibromoethane)</u>	<u>106-93-4</u>	<u>0.028</u>	<u>15</u>
		<u>Dibromomethane</u>	<u>74-95-3</u>	<u>0.11</u>	<u>15</u>
		<u>2,4-D (2,4-Dichlorophenoxyacetic acid)</u>	<u>94-75-7</u>	<u>0.72</u>	<u>10</u>
		<u>o,p'-DDD</u>	<u>53-19-0</u>	<u>0.023</u>	<u>0.087</u>
		<u>p,p'-DDD</u>	<u>72-54-8</u>	<u>0.023</u>	<u>0.087</u>
		<u>o,p'-DDE</u>	<u>3424-82-6</u>	<u>0.031</u>	<u>0.087</u>
		<u>p,p'-DDE</u>	<u>72-55-9</u>	<u>0.031</u>	<u>0.087</u>
		<u>o,p'-DDT</u>	<u>789-02-6</u>	<u>0.0039</u>	<u>0.087</u>
		<u>p,p'-DDT</u>	<u>50-29-3</u>	<u>0.0039</u>	<u>0.087</u>
		<u>Dibenz(a,h)anthracene</u>	<u>53-70-3</u>	<u>0.055</u>	<u>8.2</u>
		<u>Dibenz(a,e)pyrene</u>	<u>192-65-4</u>	<u>0.061</u>	<u>NA</u>
		<u>m-Dichlorobenzene</u>	<u>541-73-1</u>	<u>0.036</u>	<u>6.0</u>
		<u>o-Dichlorobenzene</u>	<u>95-50-1</u>	<u>0.088</u>	<u>6.0</u>
		<u>p-Dichlorobenzene</u>	<u>106-46-7</u>	<u>0.090</u>	<u>6.0</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³, or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP": or Technology Code</u>
		<u>Dichlorodifluoromethane</u>	<u>75-71-8</u>	<u>0.23</u>	<u>7.2</u>
		<u>1,1-Dichloroethane</u>	<u>75-34-3</u>	<u>0.059</u>	<u>6.0</u>
		<u>1,2-Dichloroethane</u>	<u>107-06-2</u>	<u>0.21</u>	<u>6.0</u>
		<u>1,1-Dichloroethylene</u>	<u>75-35-4</u>	<u>0.025</u>	<u>6.0</u>
		<u>trans-1,2-Dichloroethylene</u>	<u>156-60-5</u>	<u>0.054</u>	<u>30</u>
		<u>2,4-Dichlorophenol</u>	<u>120-83-2</u>	<u>0.044</u>	<u>14</u>
		<u>2,6-Dichlorophenol</u>	<u>87-65-0</u>	<u>0.044</u>	<u>14</u>
		<u>1,2-Dichloropropane</u>	<u>78-87-5</u>	<u>0.85</u>	<u>18</u>
		<u>cis-1,3-Dichloropropylene</u>	<u>10061-01-5</u>	<u>0.036</u>	<u>18</u>
		<u>trans-1,3-Dichloropropylene</u>	<u>10061-02-6</u>	<u>0.036</u>	<u>18</u>
		<u>Dieldrin</u>	<u>60-57-1</u>	<u>0.017</u>	<u>0.13</u>
		<u>Diethyl phthalate</u>	<u>84-66-2</u>	<u>0.20</u>	<u>28</u>
		<u>2,4-Dimethyl phenol</u>	<u>105-67-9</u>	<u>0.036</u>	<u>14</u>
		<u>Dimethyl phthalate</u>	<u>131-11-3</u>	<u>0.047</u>	<u>28</u>
		<u>Di-n-butyl phthalate</u>	<u>87-74-2</u>	<u>0.057</u>	<u>28</u>
		<u>1,4-Dinitrobenzene</u>	<u>100-25-4</u>	<u>0.32</u>	<u>2.3</u>
		<u>4,6-Dinitro-o-cresol</u>	<u>534-52-1</u>	<u>0.28</u>	<u>160</u>
		<u>2,4-Dinitrophenol</u>	<u>51-28-5</u>	<u>0.12</u>	<u>160</u>
		<u>2,4-Dinitrotoluene</u>	<u>121-14-2</u>	<u>0.32</u>	<u>140</u>
		<u>2,6-Dinitrotoluene</u>	<u>606-20-2</u>	<u>0.55</u>	<u>28</u>
		<u>Di-n-octyl phthalate</u>	<u>117-84-0</u>	<u>0.017</u>	<u>28</u>
		<u>Di-n-propylnitrosamine</u>	<u>621-64-7</u>	<u>0.40</u>	<u>14</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
		<u>1,4-Dioxane</u>	<u>123-91-1</u>	<u>12.0</u>	<u>170</u>
		<u>Diphenylamine (difficult to distinguish from diphenylnitrosamine)</u>	<u>122-39-4</u>	<u>0.92</u>	<u>NA</u>
		<u>Diphenylnitrosamine (difficult to distinguish from diphenylamine)</u>	<u>86-30-6</u>	<u>0.92</u>	<u>NA</u>
		<u>1,2-Diphenylhydrazine</u>	<u>122-66-7</u>	<u>0.087</u>	<u>NA</u>
		<u>Disulfoton</u>	<u>298-04-4</u>	<u>0.017</u>	<u>6.2</u>
		<u>Endosulfan I</u>	<u>939-98-8</u>	<u>0.023</u>	<u>0.066</u>
		<u>Endosulfan II</u>	<u>33213-6-5</u>	<u>0.029</u>	<u>0.13</u>
		<u>Endosulfan sulfate</u>	<u>131-07-8</u>	<u>0.029</u>	<u>0.13</u>
		<u>Endrin</u>	<u>72-20-8</u>	<u>0.0028</u>	<u>0.13</u>
		<u>Endrin aldehyde</u>	<u>7421-93-4</u>	<u>0.025</u>	<u>0.13</u>
		<u>Ethyl acetate</u>	<u>141-78-6</u>	<u>0.34</u>	<u>33</u>
		<u>Ethyl cyanide (Propanenitrile)</u>	<u>107-12-0</u>	<u>0.24</u>	<u>360</u>
		<u>Ethyl benzene</u>	<u>100-41-4</u>	<u>0.057</u>	<u>10</u>
		<u>Ethyl ether</u>	<u>60-29-7</u>	<u>0.12</u>	<u>160</u>
		<u>bis(2-Ethylhexyl) phthalate</u>	<u>117-81-7</u>	<u>0.28</u>	<u>28</u>
		<u>Ethyl methacrylate</u>	<u>97-63-2</u>	<u>0.14</u>	<u>160</u>
		<u>Ethylene oxide</u>	<u>75-21-8</u>	<u>0.12</u>	<u>NA</u>
		<u>Famphur</u>	<u>52-85-7</u>	<u>0.017</u>	<u>15</u>
		<u>Fluoranthene</u>	<u>206-44-0</u>	<u>0.068</u>	<u>3.4</u>
		<u>Fluorene</u>	<u>86-73-7</u>	<u>0.059</u>	<u>3.4</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³, or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
		<u>Heptachlor</u>	<u>76-44-8</u>	<u>0.0012</u>	<u>0.066</u>
		<u>Heptachlor epoxide</u>	<u>1024-57-3</u>	<u>0.016</u>	<u>0.066</u>
		<u>1,2,3,4,6,7,8- Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)</u>	<u>67562-39-4</u>	<u>0.000035</u>	<u>0.0025</u>
		<u>1,2,3,4,7,8,9- Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)</u>	<u>55673-89-7</u>	<u>0.000035</u>	<u>0.0025</u>
		<u>1,2,3,4,6,7,8- Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)</u>	<u>35822-46-9</u>	<u>0.000035</u>	<u>0.0025</u>
		<u>Hexachlorobenzene</u>	<u>118-74-1</u>	<u>0.055</u>	<u>10</u>
		<u>Hexachlorobutadiene</u>	<u>87-68-3</u>	<u>0.055</u>	<u>5.6</u>
		<u>Hexachlorocyclopentadiene</u>	<u>77-47-4</u>	<u>0.057</u>	<u>2.4</u>
		<u>HxCDDs (All Hexa- chlorodibenzo-p-dioxins)</u>	<u>NA</u>	<u>0.000063</u>	<u>0.001</u>
		<u>HxCDFs (All Hexachlorodibenzofurans)</u>	<u>NA</u>	<u>0.000063</u>	<u>0.001</u>
		<u>Hexachloroethane</u>	<u>67-72-1</u>	<u>0.055</u>	<u>30</u>
		<u>Hexachloropropylene</u>	<u>1888-71-7</u>	<u>0.035</u>	<u>30</u>
		<u>Indeno (1,2,3-c,d) pyrene</u>	<u>193-39-5</u>	<u>0.0055</u>	<u>3.4</u>
		<u>Iodomethane</u>	<u>74-88-4</u>	<u>0.19</u>	<u>65</u>
		<u>Isobutyl alcohol</u>	<u>78-83-1</u>	<u>5.6</u>	<u>170</u>
		<u>Isodrin</u>	<u>465-73-6</u>	<u>0.021</u>	<u>0.066</u>
		<u>Isosafrole</u>	<u>120-58-1</u>	<u>0.081</u>	<u>2.6</u>
		<u>Kepone</u>	<u>143-50-8</u>	<u>0.0011</u>	<u>0.13</u>
		<u>Methacrylonitrile</u>	<u>126-98-7</u>	<u>0.24</u>	<u>84</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
		<u>Methanol</u>	<u>67-56-1</u>	<u>5.6</u>	<u>NA</u>
		<u>Methapyrilene</u>	<u>91-80-5</u>	<u>0.081</u>	<u>1.5</u>
		<u>Methoxychlor</u>	<u>72-43-5</u>	<u>0.25</u>	<u>0.18</u>
		<u>3-Methylcholanthrene</u>	<u>56-49-5</u>	<u>0.0055</u>	<u>15</u>
		<u>4,4-Methylene bis(2- chloroaniline)</u>	<u>101-14-4</u>	<u>0.50</u>	<u>30</u>
		<u>Methylene chloride</u>	<u>75-09-2</u>	<u>0.089</u>	<u>30</u>
		<u>Methyl ethyl ketone</u>	<u>78-93-3</u>	<u>0.28</u>	<u>36</u>
		<u>Methyl isobutyl ketone</u>	<u>108-10-1</u>	<u>0.14</u>	<u>33</u>
		<u>Methyl methacrylate</u>	<u>80-62-6</u>	<u>0.14</u>	<u>160</u>
		<u>Methyl methansulfonate</u>	<u>66-27-3</u>	<u>0.018</u>	<u>NA</u>
		<u>Methyl parathion</u>	<u>298-00-0</u>	<u>0.014</u>	<u>4.6</u>
		<u>Naphthalene</u>	<u>91-20-3</u>	<u>0.059</u>	<u>5.6</u>
		<u>2-Naphthylamine</u>	<u>91-59-8</u>	<u>0.52</u>	<u>NA</u>
		<u>p-Nitroaniline</u>	<u>100-01-6</u>	<u>0.028</u>	<u>28</u>
		<u>Nitrobenzene</u>	<u>98-95-3</u>	<u>0.068</u>	<u>14</u>
		<u>5-Nitro-o-toluidine</u>	<u>99-55-8</u>	<u>0.32</u>	<u>28</u>
		<u>p-Nitrophenol</u>	<u>100-02-7</u>	<u>0.12</u>	<u>29</u>
		<u>N-Nitrosodiethylamine</u>	<u>55-18-5</u>	<u>0.40</u>	<u>28</u>
		<u>N-Nitrosodimethylamine</u>	<u>62-75-9</u>	<u>0.40</u>	<u>NA</u>
		<u>N-Nitroso-di-n-butylamine</u>	<u>924-16-3</u>	<u>0.40</u>	<u>17</u>
		<u>N-Nitrosomethylethylamine</u>	<u>10595-95-6</u>	<u>0.40</u>	<u>2.3</u>
		<u>N-Nitrosomorpholine</u>	<u>59-89-2</u>	<u>0.40</u>	<u>2.3</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³, or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
		<u>N-Nitrosopiperidine</u>	<u>100-75-4</u>	<u>0.013</u>	<u>35</u>
		<u>N-Nitrosopyrrolidine</u>	<u>930-55-2</u>	<u>0.013</u>	<u>35</u>
		<u>1,2,3,4,6,7,8,9- Octachlorodibenzofuran (OCDF)</u>	<u>39001-02-0</u>	<u>0.000063</u>	<u>0.005</u>
		<u>1,2,3,4,6,7,8,9- Octachlorodibenzo-p-dioxin (OCDD)</u>	<u>3268-87-9</u>	<u>0.000063</u>	<u>0.0025</u>
		<u>Parathion</u>	<u>56-38-2</u>	<u>0.014</u>	<u>4.6</u>
		<u>Total PCBs (sum of all PCB isomers, or all Aroclors)</u>	<u>1336-36-3</u>	<u>0.10</u>	<u>10</u>
		<u>Pentachlorobenzene</u>	<u>608-93-5</u>	<u>0.055</u>	<u>10</u>
		<u>PeCDDs (All Penta-chlorodibenzo-p-dioxins)</u>	<u>NA</u>	<u>0.000063</u>	<u>0.001</u>
		<u>PeCDFs (All Pentachlorodi-benzofurans)</u>	<u>NA</u>	<u>0.000035</u>	<u>0.001</u>
		<u>Pentachloronitrobenzene</u>	<u>82-68-8</u>	<u>0.055</u>	<u>4.8</u>
		<u>Pentachlorophenol</u>	<u>87-86-5</u>	<u>0.089</u>	<u>7.4</u>
		<u>Phenacetin</u>	<u>62-44-2</u>	<u>0.081</u>	<u>16</u>
		<u>Phenanthrene</u>	<u>85-01-8</u>	<u>0.059</u>	<u>5.6</u>
		<u>Phenol</u>	<u>108-95-2</u>	<u>0.039</u>	<u>6.2</u>
		<u>Phorate</u>	<u>298-02-2</u>	<u>0.021</u>	<u>4.6</u>
		<u>Phthalic anhydride</u>	<u>85-44-9</u>	<u>0.055</u>	<u>NA</u>
		<u>Pronamide</u>	<u>23950-58-5</u>	<u>0.093</u>	<u>1.5</u>
		<u>Pyrene</u>	<u>129-00-0</u>	<u>0.067</u>	<u>8.2</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
		<u>Pyridine</u>	<u>110-86-1</u>	<u>0.014</u>	<u>16</u>
		<u>Safrole</u>	<u>94-59-7</u>	<u>0.081</u>	<u>22</u>
		<u>Silvex (2,4,5-TP)</u>	<u>93-72-1</u>	<u>0.72</u>	<u>7.9</u>
		<u>2,4,5-T</u>	<u>93-76-5</u>	<u>0.72</u>	<u>7.9</u>
		<u>1,2,4,5-Tetrachlorobenzene</u>	<u>95-94-3</u>	<u>0.055</u>	<u>14</u>
		<u>TCDDs (All Tetra- chlorodibenzo-p-dioxins)</u>	<u>NA</u>	<u>0.000063</u>	<u>0.001</u>
		<u>TCDFs (All Tetra- chlorodibenzofurans)</u>	<u>NA</u>	<u>0.000063</u>	<u>0.001</u>
		<u>1,1,1,2-Tetrachloroethane</u>	<u>630-20-6</u>	<u>0.057</u>	<u>6.0</u>
		<u>1,1,2,2-Tetrachloroethane</u>	<u>79-34-6</u>	<u>0.057</u>	<u>6.0</u>
		<u>Tetrachloroethylene</u>	<u>127-18-4</u>	<u>0.056</u>	<u>6.0</u>
		<u>2,3,4,6-Tetrachlorophenol</u>	<u>58-90-2</u>	<u>0.030</u>	<u>7.4</u>
		<u>Toluene</u>	<u>108-88-3</u>	<u>0.080</u>	<u>10</u>
		<u>Toxaphene</u>	<u>8001-35-2</u>	<u>0.0095</u>	<u>2.6</u>
		<u>Bromoform (Tribromomethane)</u>	<u>75-25-2</u>	<u>0.63</u>	<u>15</u>
		<u>1,2,4-Trichlorobenzene</u>	<u>120-82-1</u>	<u>0.055</u>	<u>19</u>
		<u>1,1,1-Trichloroethane</u>	<u>71-55-6</u>	<u>0.054</u>	<u>6.0</u>
		<u>1,1,2-Trichloroethane</u>	<u>79-00-5</u>	<u>0.054</u>	<u>6.0</u>
		<u>Trichloroethylene</u>	<u>79-01-6</u>	<u>0.054</u>	<u>6.0</u>
		<u>Trichloromonofluoromethane</u>	<u>75-69-4</u>	<u>0.020</u>	<u>30</u>
		<u>2,4,5-Trichlorophenol</u>	<u>95-95-4</u>	<u>0.18</u>	<u>7.4</u>
		<u>2,4,6-Trichlorophenol</u>	<u>88-06-2</u>	<u>0.035</u>	<u>7.4</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
		<u>1,2,3-Trichloropropane</u>	<u>96-18-4</u>	<u>0.85</u>	<u>30</u>
		<u>1,1,2-Trichloro-1,2,2- trifluoroethane</u>	<u>76-13-1</u>	<u>0.057</u>	<u>30</u>
		<u>tris(2,3-Dibromopropyl) phosphate</u>	<u>126-72-7</u>	<u>0.11</u>	<u>NA</u>
		<u>Vinyl chloride</u>	<u>75-01-4</u>	<u>0.27</u>	<u>6.0</u>
		<u>Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)</u>	<u>1330-20-7</u>	<u>0.32</u>	<u>30</u>
		<u>Antimony</u>	<u>7440-36-0</u>	<u>1.9</u>	<u>1.15 mg/l TCLP</u>
		<u>Arsenic</u>	<u>7440-38-2</u>	<u>1.4</u>	<u>5.0 mg/l TCLP</u>
		<u>Barium</u>	<u>7440-39-3</u>	<u>1.2</u>	<u>21 mg/l TCLP</u>
		<u>Beryllium</u>	<u>7440-41-7</u>	<u>0.82</u>	<u>NA</u>
		<u>Cadmium</u>	<u>7440-43-9</u>	<u>0.69</u>	<u>0.11 mg/l TCLP</u>
		<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>
		<u>Cyanides (Total)⁷</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
		<u>Cyanides (Amenable)</u>	<u>57-12-5</u>	<u>0.86</u>	<u>NA</u>
		<u>Fluoride</u>	<u>16964-48-8</u>	<u>35</u>	<u>NA</u>
		<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>0.75 mg/l TCLP</u>
		<u>Mercury</u>	<u>7439-97-6</u>	<u>0.15</u>	<u>0.025 mg/l TCLP</u>
		<u>Nickel</u>	<u>7440-02-0</u>	<u>3.98</u>	<u>11.0 mg/l TCLP</u>
		<u>Selenium</u>	<u>7782-49-2</u>	<u>0.82</u>	<u>5.7 mg/l TCLP</u>
		<u>Silver</u>	<u>7440-22-4</u>	<u>0.43</u>	<u>0.14 mg/l TCLP</u>
		<u>Sulfide</u>	<u>8496-25-8</u>	<u>14</u>	<u>NA</u>
		<u>Thallium</u>	<u>7440-28-0</u>	<u>1.4</u>	<u>NA</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
K001	<u>Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.</u>	<u>Vanadium</u>	<u>7440-62-2</u>	<u>4.3</u>	<u>NA</u>
		<u>Naphthalene</u>	<u>91-20-3</u>	<u>0.059</u>	<u>5.6</u>
		<u>Pentachlorophenol</u>	<u>87-86-5</u>	<u>0.089</u>	<u>7.4</u>
		<u>Phenanthrene</u>	<u>85-01-8</u>	<u>0.059</u>	<u>5.6</u>
		<u>Pyrene</u>	<u>129-00-0</u>	<u>0.067</u>	<u>8.2</u>
		<u>Toluene</u>	<u>108-88-3</u>	<u>0.080</u>	<u>10</u>
		<u>Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)</u>	<u>1330-20-7</u>	<u>0.32</u>	<u>30</u>
		<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>0.75 mg/l TCLP</u>
K002	<u>Wastewater treatment sludge from the production of chrome yellow and orange pigments.</u>	<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>
K003	<u>Wastewater treatment sludge from the production of molybdate orange pigments.</u>	<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>0.75 mg/l TCLP</u>
		<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>
K004	<u>Wastewater treatment sludge from the production of zinc yellow pigments.</u>	<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>0.75 mg/l TCLP</u>
		<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>
K005	<u>Wastewater treatment sludge from the production of chrome green pigments.</u>	<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>0.75 mg/l TCLP</u>
		<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>
		<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>0.75 mg/l TCLP</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

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<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³, or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
K006	<u>Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous).</u>	<u>Cyanides (Total)⁷</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
		<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>
	<u>Wastewater treatment sludge from the production of chrome oxide green pigments (hydrated).</u>	<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>0.75 mg/l TCLP</u>
		<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>
K007	<u>Wastewater treatment sludge from the production of iron blue pigments.</u>	<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>NA</u>
		<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>
		<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>0.75 mg/l TCLP</u>
K008	<u>Oven residue from the production of chrome oxide green pigments.</u>	<u>Cyanides (Total)⁷</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
		<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>
		<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>0.75 mg/l TCLP</u>
K009	<u>Distillation bottoms from the production of acetaldehyde from ethylene.</u>	<u>Chloroform</u>	<u>67-66-3</u>	<u>0.046</u>	<u>6.0</u>
K010	<u>Distillation side cuts from the production of acetaldehyde from ethylene.</u>	<u>Chloroform</u>	<u>67-66-3</u>	<u>0.046</u>	<u>6.0</u>
K011	<u>Bottom stream from the wastewater stripper in the production of acrylonitrile.</u>	<u>Acetonitrile</u>	<u>75-05-8</u>	<u>5.6</u>	<u>38</u>
		<u>Acrylonitrile</u>	<u>107-13-1</u>	<u>0.24</u>	<u>84</u>
		<u>Acrylamide</u>	<u>79-06-1</u>	<u>19</u>	<u>23</u>
		<u>Benzene</u>	<u>71-43-2</u>	<u>0.14</u>	<u>10</u>
		<u>Cyanide (Total)</u>	<u>47-12-5</u>	<u>1.2</u>	<u>590</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
K013	<u>Bottom stream from the acetonitrile column in the production of acrylonitrile.</u>	<u>Acetonitrile</u>	<u>75-05-8</u>	<u>5.6</u>	<u>38</u>
		<u>Acrylonitrile</u>	<u>107-13-1</u>	<u>0.24</u>	<u>84</u>
		<u>Acrylamide</u>	<u>79-06-1</u>	<u>19</u>	<u>23</u>
		<u>Benzene</u>	<u>71-43-2</u>	<u>0.14</u>	<u>10</u>
		<u>Cyanide (Total)</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
K014	<u>Bottoms from the acetonitrile purification column in the production of acrylonitrile.</u>	<u>Acetonitrile</u>	<u>75-05-8</u>	<u>5.6</u>	<u>38</u>
		<u>Acrylonitrile</u>	<u>107-13-1</u>	<u>0.24</u>	<u>84</u>
		<u>Acrylamide</u>	<u>79-06-1</u>	<u>19</u>	<u>23</u>
		<u>Benzene</u>	<u>71-43-2</u>	<u>0.14</u>	<u>10</u>
		<u>Cyanide (Total)</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
K015	<u>Still bottoms from the distillation of benzyl chloride.</u>	<u>Anthracene</u>	<u>120-12-7</u>	<u>0.059</u>	<u>3.4</u>
		<u>Benzal chloride</u>	<u>98-87-3</u>	<u>0.055</u>	<u>6.0</u>
		<u>Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)</u>	<u>205-99-2</u>	<u>0.11</u>	<u>6.8</u>
		<u>Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)</u>	<u>207-08-9</u>	<u>0.11</u>	<u>6.8</u>
		<u>Phenanthrene</u>	<u>85-01-8</u>	<u>0.059</u>	<u>5.6</u>
		<u>Toluene</u>	<u>108-88-3</u>	<u>0.080</u>	<u>10</u>
		<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>
		<u>Nickel</u>	<u>7440-02-0</u>	<u>3.98</u>	<u>11.0 mg/l TCLP</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP": or Technology Code</u>
K016	<u>Heavy ends or distillation residues from the production of carbon tetrachloride.</u>	<u>Hexachlorobenzene</u>	<u>118-74-1</u>	<u>0.055</u>	<u>10</u>
		<u>Hexachlorobutadiene</u>	<u>87-68-3</u>	<u>0.055</u>	<u>5.6</u>
		<u>Hexachlorocyclopentadiene</u>	<u>77-47-4</u>	<u>0.057</u>	<u>2.4</u>
		<u>Hexachloroethane</u>	<u>67-72-1</u>	<u>0.055</u>	<u>30</u>
		<u>Tetrachloroethylene</u>	<u>127-18-4</u>	<u>0.056</u>	<u>6.0</u>
K017	<u>Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.</u>	<u>bis(2-Chloroethyl)ether</u>	<u>111-44-4</u>	<u>0.033</u>	<u>6.0</u>
		<u>1,2-Dichloropropane</u>	<u>78-87-5</u>	<u>0.85</u>	<u>18</u>
		<u>1,2,3-Trichloropropane</u>	<u>96-18-4</u>	<u>0.85</u>	<u>30</u>
K018	<u>Heavy ends from the fractionation column in ethyl chloride production.</u>	<u>Chloroethane</u>	<u>75-00-3</u>	<u>0.27</u>	<u>6.0</u>
		<u>Chloromethane</u>	<u>74-87-3</u>	<u>0.19</u>	<u>NA</u>
		<u>1,1-Dichloroethane</u>	<u>75-34-3</u>	<u>0.059</u>	<u>6.0</u>
		<u>1,2-Dichloroethane</u>	<u>107-06-2</u>	<u>0.21</u>	<u>6.0</u>
		<u>Hexachlorobenzene</u>	<u>118-74-1</u>	<u>0.055</u>	<u>10</u>
		<u>Hexachlorobutadiene</u>	<u>87-68-3</u>	<u>0.055</u>	<u>5.6</u>
		<u>Hexachloroethane</u>	<u>67-72-1</u>	<u>0.055</u>	<u>30</u>
		<u>Pentachloroethane</u>	<u>76-01-7</u>	<u>NA</u>	<u>6.0</u>
		<u>1,1,1-Trichloroethane</u>	<u>71-55-6</u>	<u>0.054</u>	<u>6.0</u>
K019	<u>Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.</u>	<u>bis(2-Chloroethyl)ether</u>	<u>111-44-4</u>	<u>0.033</u>	<u>6.0</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory</u> ¹	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
		<u>Chlorobenzene</u>	<u>108-90-7</u>	<u>0.057</u>	<u>6.0</u>
		<u>Chloroform</u>	<u>67-66-3</u>	<u>0.046</u>	<u>6.0</u>
		<u>p-Dichlorobenzene</u>	<u>106-46-7</u>	<u>0.090</u>	<u>NA</u>
		<u>1,2-Dichloroethane</u>	<u>107-06-2</u>	<u>0.21</u>	<u>6.0</u>
		<u>Fluorene</u>	<u>86-73-7</u>	<u>0.059</u>	<u>NA</u>
		<u>Hexachloroethane</u>	<u>67-72-1</u>	<u>0.055</u>	<u>30</u>
		<u>Naphthalene</u>	<u>91-20-3</u>	<u>0.059</u>	<u>5.6</u>
		<u>Phenanthrene</u>	<u>85-01-8</u>	<u>0.059</u>	<u>5.6</u>
		<u>1,2,4,5-Tetrachlorobenzene</u>	<u>95-94-3</u>	<u>0.055</u>	<u>NA</u>
		<u>Tetrachloroethylene</u>	<u>127-18-4</u>	<u>0.056</u>	<u>6.0</u>
		<u>1,2,4-Trichlorobenzene</u>	<u>120-82-1</u>	<u>0.055</u>	<u>19</u>
		<u>1,1,1-Trichloroethane</u>	<u>71-55-6</u>	<u>0.054</u>	<u>6.0</u>
<u>K020</u>	<u>Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.</u>	<u>1,2-Dichloroethane</u>	<u>107-06-2</u>	<u>0.21</u>	<u>6.0</u>
		<u>1,1,2,2-Tetrachloroethane</u>	<u>79-34-6</u>	<u>0.057</u>	<u>6.0</u>
		<u>Tetrachloroethylene</u>	<u>127-18-4</u>	<u>0.056</u>	<u>6.0</u>
<u>K021</u>	<u>Aqueous spent antimony catalyst waste from fluoromethanes production.</u>	<u>Carbon tetrachloride</u>	<u>56-23-5</u>	<u>0.057</u>	<u>6.0</u>
		<u>Chloroform</u>	<u>67-66-3</u>	<u>0.046</u>	<u>6.0</u>
		<u>Antimony</u>	<u>7440-36-0</u>	<u>1.9</u>	<u>1.15 mg/l TCLP</u>
<u>K022</u>	<u>Distillation bottom tars from the production of phenol/acetone from cumene.</u>	<u>Toluene</u>	<u>108-88-3</u>	<u>0.080</u>	<u>10</u>

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	
533		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	
	K023	Distillation light ends from the production of phthalic anhydride from naphthalene.	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28
			Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28
	K024	Distillation bottoms from the production of phthalic anhydride from naphthalene.	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28
			Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28
	K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene.	NA	NA	LLEXT to SSTRP to 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

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
534		<u>trans-1,2-Dichloroethylene</u>	<u>156-60-5</u>	<u>0.054</u>	<u>30</u>
		<u>Hexachlorobutadiene</u>	<u>87-68-3</u>	<u>0.055</u>	<u>5.6</u>
		<u>Hexachloroethane</u>	<u>67-72-1</u>	<u>0.055</u>	<u>30</u>
		<u>Pentachloroethane</u>	<u>76-01-7</u>	<u>NA</u>	<u>6.0</u>
		<u>1,1,1,2-Tetrachloroethane</u>	<u>630-20-6</u>	<u>0.057</u>	<u>6.0</u>
		<u>1,1,2,2-Tetrachloroethane</u>	<u>79-34-6</u>	<u>0.057</u>	<u>6.0</u>
		<u>Tetrachloroethylene</u>	<u>127-18-4</u>	<u>0.056</u>	<u>6.0</u>
		<u>1,1,1-Trichloroethane</u>	<u>71-55-6</u>	<u>0.054</u>	<u>6.0</u>
		<u>1,1,2-Trichloroethane</u>	<u>79-00-5</u>	<u>0.054</u>	<u>6.0</u>
		<u>Cadmium</u>	<u>7440-43-9</u>	<u>0.69</u>	<u>NA</u>
		<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>
		<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>0.75 mg/l TCLP</u>
		<u>Nickel</u>	<u>7440-02-0</u>	<u>3.98</u>	<u>11.0 mg/l TCLP</u>
		<u>Chloroform</u>	<u>67-66-3</u>	<u>0.046</u>	<u>6.0</u>
K029	<u>Waste from the product steam stripper in the production of 1,1,1-trichloroethane.</u>	<u>1,2-Dichloroethane</u>	<u>107-06-2</u>	<u>0.21</u>	<u>6.0</u>
		<u>1,1-Dichloroethylene</u>	<u>75-35-4</u>	<u>0.025</u>	<u>6.0</u>
		<u>1,1,1-Trichloroethane</u>	<u>71-55-6</u>	<u>0.054</u>	<u>6.0</u>
		<u>Vinyl chloride</u>	<u>75-01-4</u>	<u>0.27</u>	<u>6.0</u>
K030	<u>Column bodies or heavy ends from the combined production of trichloroethylene and perchloroethylene.</u>	<u>o-Dichlorobenzene</u>	<u>95-50-1</u>	<u>0.088</u>	<u>NA</u>

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
535		<u>p-Dichlorobenzene</u>	<u>106-46-7</u>	<u>0.090</u>	<u>NA</u>
		<u>Hexachlorobutadiene</u>	<u>87-68-3</u>	<u>0.055</u>	<u>5.6</u>
		<u>Hexachloroethane</u>	<u>67-72-1</u>	<u>0.055</u>	<u>30</u>
		<u>Hexachloropropylene</u>	<u>1888-71-7</u>	<u>NA</u>	<u>30</u>
		<u>Pentachlorobenzene</u>	<u>608-93-5</u>	<u>NA</u>	<u>10</u>
		<u>Pentachloroethane</u>	<u>76-01-7</u>	<u>NA</u>	<u>6.0</u>
		<u>1,2,4,5-Tetrachlorobenzene</u>	<u>95-94-3</u>	<u>0.055</u>	<u>14</u>
		<u>Tetrachloroethylene</u>	<u>127-18-4</u>	<u>0.056</u>	<u>6.0</u>
		<u>1,2,4-Trichlorobenzene</u>	<u>120-82-1</u>	<u>0.055</u>	<u>19</u>
		<u>Arsenic</u>	<u>7440-38-2</u>	<u>1.4</u>	<u>5.0 mg/l TCLP</u>
<u>K031</u>	<u>Byproduct salts generated in the production of MSMA and cacodylic acid.</u>	<u>Arsenic</u>	<u>7440-38-2</u>	<u>1.4</u>	<u>5.0 mg/l TCLP</u>
<u>K032</u>	<u>Wastewater treatment sludge from the production of chlordane.</u>	<u>Hexachlorocyclopentadiene</u>	<u>77-47-4</u>	<u>0.057</u>	<u>2.4</u>
		<u>Chlordane (alpha and gamma isomers)</u>	<u>57-74-9</u>	<u>0.0033</u>	<u>0.26</u>
		<u>Heptachlor</u>	<u>76-44-8</u>	<u>0.0012</u>	<u>0.066</u>
		<u>Heptachlor epoxide</u>	<u>1024-57-3</u>	<u>0.016</u>	<u>0.066</u>
<u>K033</u>	<u>Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.</u>	<u>Hexachlorocyclopentadiene</u>	<u>77-47-4</u>	<u>0.057</u>	<u>2.4</u>
<u>K034</u>	<u>Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.</u>	<u>Hexachlorocyclopentadiene</u>	<u>77-47-4</u>	<u>0.057</u>	<u>2.4</u>
<u>K035</u>	<u>Wastewater treatment sludges generated in the production of creosote.</u>	<u>Acenaphthene</u>	<u>83-32-9</u>	<u>NA</u>	<u>3.4</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
		<u>Anthracene</u>	<u>120-12-7</u>	<u>NA</u>	<u>3.4</u>
		<u>Benz(a)anthracene</u>	<u>56-55-3</u>	<u>0.059</u>	<u>3.4</u>
		<u>Benzo(a)pyrene</u>	<u>50-32-8</u>	<u>0.061</u>	<u>3.4</u>
		<u>Chrysene</u>	<u>218-01-9</u>	<u>0.059</u>	<u>3.4</u>
		<u>o-Cresol</u>	<u>95-48-7</u>	<u>0.11</u>	<u>5.6</u>
		<u>m-Cresol (difficult to distinguish from p-cresol)</u>	<u>108-39-4</u>	<u>0.77</u>	<u>5.6</u>
		<u>p-Cresol (difficult to distinguish from m-cresol)</u>	<u>106-44-5</u>	<u>0.77</u>	<u>5.6</u>
		<u>Dibenz(a,h)anthracene</u>	<u>53-70-3</u>	<u>NA</u>	<u>8.2</u>
		<u>Fluoranthene</u>	<u>206-44-0</u>	<u>0.068</u>	<u>3.4</u>
		<u>Fluorene</u>	<u>86-73-7</u>	<u>NA</u>	<u>3.4</u>
		<u>Indeno(1,2,3-cd)pyrene</u>	<u>193-39-5</u>	<u>NA</u>	<u>3.4</u>
		<u>Naphthalene</u>	<u>91-20-3</u>	<u>0.059</u>	<u>5.6</u>
		<u>Phenanthrene</u>	<u>85-01-8</u>	<u>0.059</u>	<u>5.6</u>
		<u>Phenol</u>	<u>108-95-2</u>	<u>0.039</u>	<u>6.2</u>
		<u>Pyrene</u>	<u>129-00-0</u>	<u>0.067</u>	<u>8.2</u>
<u>K036</u>	<u>Still bottoms from toluene reclamation distillation in the production of disulfoton.</u>	<u>Disulfoton</u>	<u>298-04-4</u>	<u>0.017</u>	<u>6.2</u>
<u>K037</u>	<u>Wastewater treatment sludges from the production of disulfoton.</u>	<u>Disulfoton</u>	<u>298-04-4</u>	<u>0.017</u>	<u>6.2</u>
		<u>Toluene</u>	<u>108-88-3</u>	<u>0.080</u>	<u>10</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
K038	<u>Wastewater from the washing and stripping of phorate production.</u>	<u>Phorate</u>	<u>298-02-2</u>	<u>0.021</u>	<u>4.6</u>
K039	<u>Filter cake from the filtration of diethylphosphorodithioc acid in the production of phorate.</u>	<u>NA</u>	<u>NA</u>	<u>CARBN; or CMBST</u>	<u>CMBST</u>
K040	<u>Wastewater treatment sludge from the production of phorate.</u>	<u>Phorate</u>	<u>298-02-2</u>	<u>0.021</u>	<u>4.6</u>
K041	<u>Wastewater treatment sludge from the production of toxaphene.</u>	<u>Toxaphene</u>	<u>8001-35-2</u>	<u>0.0095</u>	<u>2.6</u>
K042	<u>Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.</u>	<u>o-Dichlorobenzene</u>	<u>95-50-1</u>	<u>0.088</u>	<u>6.0</u>
		<u>p-Dichlorobenzene</u>	<u>106-46-7</u>	<u>0.090</u>	<u>6.0</u>
		<u>Pentachlorobenzene</u>	<u>608-93-5</u>	<u>0.055</u>	<u>10</u>
		<u>1,2,4,5-Tetrachlorobenzene</u>	<u>95-94-3</u>	<u>0.055</u>	<u>14</u>
		<u>1,2,4-Trichlorobenzene</u>	<u>120-82-1</u>	<u>0.055</u>	<u>19</u>
K043	<u>2,6-Dichlorophenol waste from the production of 2,4-D.</u>	<u>2,4-Dichlorophenol</u>	<u>120-83-2</u>	<u>0.044</u>	<u>14</u>
		<u>2,6-Dichlorophenol</u>	<u>187-65-0</u>	<u>0.044</u>	<u>14</u>
		<u>2,4,5-Trichlorophenol</u>	<u>95-95-4</u>	<u>0.18</u>	<u>7.4</u>
		<u>2,4,6-Trichlorophenol</u>	<u>88-06-2</u>	<u>0.035</u>	<u>7.4</u>
		<u>2,3,4,6-Tetrachlorophenol</u>	<u>58-90-2</u>	<u>0.030</u>	<u>7.4</u>
		<u>Pentachlorophenol</u>	<u>87-86-5</u>	<u>0.089</u>	<u>7.4</u>
		<u>Tetrachloroethylene</u>	<u>127-18-4</u>	<u>0.056</u>	<u>6.0</u>
		<u>HxCDDs (All Hexachlorodibenzo-p-dioxins)</u>	<u>NA</u>	<u>0.000063</u>	<u>0.001</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

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<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
		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
		TCDDs (All tetra-chlorodibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (All Tetra- chlorodibenzofurans)	NA	0.000063	0.001
K044	Wastewater treatment sludges from the manufacturing and processing of explosives.	NA	NA	DEACT	DEACT
K045	Spent carbon from the treatment of wastewater containing explosives.	NA	NA	DEACT	DEACT
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.	Lead	7439-92-1	0.69	0.75 mg/l TCLP
K047	Pink/red water from TNT operations.	NA	NA	DEACT	DEACT
K048	Dissolved air flotation (DAF) float from the petroleum refining industry.	Benzene	71-43-2	0.14	10
		Benzo(a)pyrene	50-32-8	0.061	3.4
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		Chrysene	218-01-9	0.059	3.4
		Di-n-butyl phthalate	84-74-2	0.057	28
		Ethylbenzene	100-41-4	0.057	10
		Fluorene	86-73-7	0.059	NA
		Naphthalene	91-20-3	0.059	5.6

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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
K049	Slop oil emulsion solids 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	108-88-33	0.080	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		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

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP", or Technology Code</u>
540	<u>K050 Heat exchanger bundle cleaning sludge from the petroleum refining industry.</u>	<u>Pyrene</u>	<u>129-00-0</u>	<u>0.067</u>	<u>8.2</u>
		<u>Toluene</u>	<u>108-88-3</u>	<u>0.080</u>	<u>10</u>
		<u>Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)</u>	<u>1330-20-7</u>	<u>0.32</u>	<u>30</u>
		<u>Cyanides (Total)⁷</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
		<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>
		<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>NA</u>
		<u>Nickel</u>	<u>7440-02-0</u>	<u>NA</u>	<u>11.0 mg/l TCLP</u>
		<u>Benzo(a)pyrene</u>	<u>50-32-8</u>	<u>0.061</u>	<u>3.4</u>
		<u>Phenol</u>	<u>108-95-2</u>	<u>0.039</u>	<u>6.2</u>
		<u>Cyanides (Total)⁷</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
	<u>K051 API separator sludge from the petroleum refining industry.</u>	<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>
		<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>NA</u>
		<u>Nickel</u>	<u>7440-02-0</u>	<u>NA</u>	<u>11.0 mg/l TCLP</u>
		<u>Acenaphthene</u>	<u>83-32-9</u>	<u>0.059</u>	<u>NA</u>
		<u>Anthracene</u>	<u>120-12-7</u>	<u>0.059</u>	<u>3.4</u>
		<u>Benz(a)anthracene</u>	<u>56-55-3</u>	<u>0.059</u>	<u>3.4</u>
		<u>Benzene</u>	<u>71-43-2</u>	<u>0.14</u>	<u>10</u>
		<u>Benzo(a)pyrene</u>	<u>50-32-8</u>	<u>0.061</u>	<u>3.4</u>
		<u>bis(2-Ethylhexyl) phthalate</u>	<u>117-81-7</u>	<u>0.28</u>	<u>28</u>
		<u>Chrysene</u>	<u>2218-01-9</u>	<u>0.059</u>	<u>3.4</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
K052	<u>Tank bottoms (leaded) from the petroleum refining industry.</u>	<u>Di-n-butyl phthalate</u>	<u>105-67-9</u>	<u>0.057</u>	<u>28</u>
		<u>Ethylbenzene</u>	<u>100-41-4</u>	<u>0.057</u>	<u>10</u>
		<u>Fluorene</u>	<u>86-73-7</u>	<u>0.059</u>	<u>NA</u>
		<u>Naphthalene</u>	<u>91-20-3</u>	<u>0.059</u>	<u>5.6</u>
		<u>Phenanthrene</u>	<u>85-01-8</u>	<u>0.059</u>	<u>5.6</u>
		<u>Phenol</u>	<u>108-95-2</u>	<u>0.039</u>	<u>6.2</u>
		<u>Pyrene</u>	<u>129-00-0</u>	<u>0.067</u>	<u>8.2</u>
		<u>Toluene</u>	<u>108-88-3</u>	<u>0.08</u>	<u>10</u>
		<u>Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)</u>	<u>1330-20-7</u>	<u>0.32</u>	<u>30</u>
		<u>Cyanides (Total)⁷</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
		<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>
		<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>NA</u>
		<u>Nickel</u>	<u>7440-02-0</u>	<u>NA</u>	<u>11.0 mg/l TCLP</u>
		<u>Benzene</u>	<u>71-43-2</u>	<u>0.14</u>	<u>10</u>
		<u>Benzo(a)pyrene</u>	<u>50-32-8</u>	<u>0.061</u>	<u>3.4</u>
		<u>o-Cresol</u>	<u>95-48-7</u>	<u>0.11</u>	<u>5.6</u>
		<u>m-Cresol (difficult to distinguish from p-cresol)</u>	<u>108-39-4</u>	<u>0.77</u>	<u>5.6</u>
		<u>p-Cresol (difficult to distinguish from m-cresol)</u>	<u>106-44-5</u>	<u>0.77</u>	<u>5.6</u>
		<u>2,4-Dimethylphenol</u>	<u>105-67-9</u>	<u>0.036</u>	<u>NA</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

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<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³; or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
K060	<u>Ammonia still lime sludge from coking operations.</u>	<u>Ethylbenzene</u>	<u>100-41-4</u>	<u>0.057</u>	<u>10</u>
		<u>Naphthalene</u>	<u>91-20-3</u>	<u>0.059</u>	<u>5.6</u>
		<u>Phenanthrene</u>	<u>85-01-8</u>	<u>0.059</u>	<u>5.6</u>
		<u>Phenol</u>	<u>108-95-2</u>	<u>0.039</u>	<u>6.2</u>
		<u>Toluene</u>	<u>108-88-3</u>	<u>0.08</u>	<u>10</u>
		<u>Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)</u>	<u>1330-20-7</u>	<u>0.32</u>	<u>30</u>
		<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>
		<u>Cyanides (Total)²</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
		<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>NA</u>
		<u>Nickel</u>	<u>7440-02-0</u>	<u>NA</u>	<u>11.0 mg/l TCLP</u>
K061	<u>Emission control dust/sludge from the primary production of steel in electric furnaces.</u>	<u>Benzene</u>	<u>71-43-2</u>	<u>0.14</u>	<u>10</u>
		<u>Benzo(a)pyrene</u>	<u>50-32-8</u>	<u>0.061</u>	<u>3.4</u>
		<u>Naphthalene</u>	<u>91-20-3</u>	<u>0.059</u>	<u>5.6</u>
		<u>Phenol</u>	<u>108-95-2</u>	<u>0.039</u>	<u>6.2</u>
		<u>Cyanides (Total)²</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
		<u>Antimony</u>	<u>7440-36-0</u>	<u>NA</u>	<u>1.15 mg/l TCLP</u>
		<u>Arsenic</u>	<u>7440-38-2</u>	<u>NA</u>	<u>5.0 mg/l TCLP</u>
		<u>Barium</u>	<u>7440-39-3</u>	<u>NA</u>	<u>21 mg/l TCLP</u>
		<u>Beryllium</u>	<u>7440-41-7</u>	<u>NA</u>	<u>1.22 mg/l TCLP</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

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<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP": or Technology Code</u>
		Cadmium	7440-43-9	0.69	0.11 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Mercury	7439-97-6	NA	0.025 mg/l TCLP
		Nickel	7440-02-0	3.98	11.0 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
K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (standard industrial codes 331 and 332).	Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Nickel	7440-02-0	3.98	NA
K069	Emission control dust/sludge from secondary lead smelting - calcium sulfate (low lead) subcategory.	Cadmium	7440-43-9	0.69	0.11 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
	Emission control dust/sludge from secondary lead smelting - noncalcium sulfate (high lead) subcategory.	NA	NA	NA	RLEAD
K071	K071 (Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.) Nonwastewaters that are residues from RMERC.	Mercury	7439-97-6	NA	0.20 mg/l TCLP

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
544	<u>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.</u>	<u>Mercury</u>	<u>7439-97-6</u>	<u>NA</u>	<u>0.025 mg/l TCLP</u>
	<u>All K071 wastewaters.</u>	<u>Mercury</u>	<u>7439-97-6</u>	<u>0.15</u>	<u>NA</u>
	<u>K073 Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.</u>	<u>Carbon tetrachloride</u>	<u>56-23-5</u>	<u>0.057</u>	<u>6.0</u>
		<u>Chloroform</u>	<u>67-66-3</u>	<u>0.046</u>	<u>6.0</u>
		<u>Hexachloroethane</u>	<u>67-72-1</u>	<u>0.055</u>	<u>30</u>
		<u>Tetrachloroethylene</u>	<u>127-18-4</u>	<u>0.056</u>	<u>6.0</u>
		<u>1,1,1-Trichloroethane</u>	<u>71-55-6</u>	<u>0.054</u>	<u>6.0</u>
	<u>K083 Distillation bottoms from aniline production.</u>	<u>Aniline</u>	<u>62-53-3</u>	<u>0.81</u>	<u>14</u>
		<u>Benzene</u>	<u>71-43-2</u>	<u>0.14</u>	<u>10</u>
		<u>Cyclohexanone</u>	<u>108-94-1</u>	<u>0.36</u>	<u>NA</u>
		<u>Diphenylamine (difficult to distinguish from diphenylnitrosamine)</u>	<u>122-39-4</u>	<u>0.92</u>	<u>13</u>
		<u>Diphenylnitrosamine (difficult to distinguish from diphenylamine)</u>	<u>86-30-6</u>	<u>0.92</u>	<u>13</u>
		<u>Nitrobenzene</u>	<u>98-95-3</u>	<u>0.068</u>	<u>14</u>
		<u>Phenol</u>	<u>108-95-2</u>	<u>0.039</u>	<u>6.2</u>
		<u>Nickel</u>	<u>7440-02-0</u>	<u>3.98</u>	<u>11.0 mg/l TCLP</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes.	Benzene	71-43-2	0.14	10
		Chlorobenzene	108-90-7	0.057	6.0
		m-Dichlorobenzene	541-73-1	0.036	6.0
		o-Dichlorobenzene	95-50-1	0.088	6.0
		p-Dichlorobenzene	106-46-7	0.090	6.0
		Hexachlorobenzene	118-74-1	0.055	10
		Total PCBs (sum of all PCB isomers, or all Aroclors)	1336-36-3	0.10	10
		Pentachlorobenzene	608-93-5	0.055	10
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		1,2,4-Trichlorobenzene	120-82-1	0.055	19
K086	Solvent wastes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.	Acetone	67-64-1	0.28	160
		Acetophenone	96-86-2	0.010	9.7
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		n-Butyl alcohol	71-36-3	5.6	2.6

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory</u> ¹	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
		<u>Butylbenzyl phthalate</u>	<u>85-68-7</u>	<u>0.017</u>	<u>28</u>
		<u>Cyclohexanone</u>	<u>108-94-1</u>	<u>0.36</u>	<u>NA</u>
		<u>o-Dichlorobenzene</u>	<u>95-50-1</u>	<u>0.088</u>	<u>6.0</u>
		<u>Diethyl phthalate</u>	<u>84-66-2</u>	<u>0.20</u>	<u>28</u>
		<u>Dimethyl phthalate</u>	<u>131-11-3</u>	<u>0.047</u>	<u>28</u>
		<u>Di-n-butyl phthalate</u>	<u>84-74-2</u>	<u>0.057</u>	<u>28</u>
		<u>Di-n-octyl phthalate</u>	<u>117-84-0</u>	<u>0.017</u>	<u>28</u>
		<u>Ethyl acetate</u>	<u>141-78-6</u>	<u>0.34</u>	<u>33</u>
		<u>Ethylbenzene</u>	<u>100-41-4</u>	<u>0.057</u>	<u>10</u>
		<u>Methanol</u>	<u>67-56-1</u>	<u>5.6</u>	<u>NA</u>
		<u>Methyl ethyl ketone</u>	<u>78-93-3</u>	<u>0.28</u>	<u>36</u>
		<u>Methyl isobutyl ketone</u>	<u>108-10-1</u>	<u>0.14</u>	<u>33</u>
		<u>Methylene chloride</u>	<u>75-09-2</u>	<u>0.089</u>	<u>30</u>
		<u>Naphthalene</u>	<u>91-20-3</u>	<u>0.059</u>	<u>5.6</u>
		<u>Nitrobenzene</u>	<u>98-95-3</u>	<u>0.068</u>	<u>14</u>
		<u>Toluene</u>	<u>108-88-3</u>	<u>0.080</u>	<u>10</u>
		<u>1,1,1-Trichloroethane</u>	<u>71-55-6</u>	<u>0.054</u>	<u>6.0</u>
		<u>Trichloroethylene</u>	<u>79-01-6</u>	<u>0.054</u>	<u>6.0</u>
		<u>Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)</u>	<u>1330-20-7</u>	<u>0.32</u>	<u>30</u>
		<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>
		<u>Cyanides (Total)</u> ⁷	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>

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
K087	Decanter tank tar sludge from coking operations.	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
		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
K088	Spent potliners from primary aluminum reduction.	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

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
		<u>Fluoranthene</u>	<u>206-44-0</u>	<u>0.068</u>	<u>3.4</u>
		<u>Indeno(1,2,3-c,d)pyrene</u>	<u>193-39-5</u>	<u>0.0055</u>	<u>3.4</u>
		<u>Phenanthrene</u>	<u>85-01-8</u>	<u>0.059</u>	<u>5.6</u>
		<u>Pyrene</u>	<u>129-00-0</u>	<u>0.067</u>	<u>8.2</u>
		<u>Antimony</u>	<u>7440-36-0</u>	<u>1.9</u>	<u>1.15 mg/l TCLP</u>
		<u>Arsenic</u>	<u>7440-38-2</u>	<u>1.4</u>	<u>26.1</u>
		<u>Barium</u>	<u>7440-39-3</u>	<u>1.2</u>	<u>21 mg/l TCLP</u>
		<u>Beryllium</u>	<u>7440-41-7</u>	<u>0.82</u>	<u>1.22 mg/l TCLP</u>
		<u>Cadmium</u>	<u>7440-43-9</u>	<u>0.69</u>	<u>0.11 mg/l TCLP</u>
		<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.60 mg/l TCLP</u>
		<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>0.75 mg/l TCLP</u>
		<u>Mercury</u>	<u>7439-97-6</u>	<u>0.15</u>	<u>0.025 mg/l TCLP</u>
		<u>Nickel</u>	<u>7440-02-0</u>	<u>3.98</u>	<u>11 mg/l TCLP</u>
		<u>Selenium</u>	<u>7782-49-2</u>	<u>0.82</u>	<u>5.7 mg/l TCLP</u>
		<u>Silver</u>	<u>7440-22-4</u>	<u>0.43</u>	<u>0.14 mg/l TCLP</u>
		<u>Cyanide (Total)⁷</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
		<u>Cyanide (Amenable)⁷</u>	<u>57-12-5</u>	<u>0.86</u>	<u>30</u>
		<u>Fluoride</u>	<u>16984-48-8</u>	<u>35</u>	<u>NA</u>
<u>K093</u>	<u>Distillation light ends from the production of phthalic anhydride from ortho-xylene.</u>	<u>Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)</u>	<u>100-21-0</u>	<u>0.055</u>	<u>28</u>
		<u>Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)</u>	<u>85-44-9</u>	<u>0.055</u>	<u>28</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
K094	<u>Distillation bottoms from the production of phthalic anhydride from ortho-xylene.</u>	<u>Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)</u>	<u>100-21-0</u>	<u>0.055</u>	<u>28</u>
		<u>Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)</u>	<u>85-44-9</u>	<u>0.055</u>	<u>28</u>
K095	<u>Distillation bottoms from the production of 1,1,1-trichloroethane.</u>	<u>Hexachloroethane</u>	<u>67-72-1</u>	<u>0.055</u>	<u>30</u>
		<u>Pentachloroethane</u>	<u>76-01-7</u>	<u>0.055</u>	<u>6.0</u>
		<u>1,1,1,2-Tetrachloroethane</u>	<u>630-20-6</u>	<u>0.057</u>	<u>6.0</u>
		<u>1,1,2,2-Tetrachloroethane</u>	<u>79-34-6</u>	<u>0.057</u>	<u>6.0</u>
		<u>Tetrachloroethylene</u>	<u>127-18-4</u>	<u>0.056</u>	<u>6.0</u>
		<u>1,1,2-Trichloroethane</u>	<u>79-00-5</u>	<u>0.054</u>	<u>6.0</u>
		<u>Trichloroethylene</u>	<u>79-01-6</u>	<u>0.054</u>	<u>6.0</u>
K096	<u>Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.</u>	<u>m-Dichlorobenzene</u>	<u>541-73-1</u>	<u>0.036</u>	<u>6.0</u>
		<u>Pentachloroethane</u>	<u>76-01-7</u>	<u>0.055</u>	<u>6.0</u>
		<u>1,1,1,2-Tetrachloroethane</u>	<u>630-20-6</u>	<u>0.057</u>	<u>6.0</u>
		<u>1,1,2,2-Tetrachloroethane</u>	<u>79-34-6</u>	<u>0.057</u>	<u>6.0</u>
		<u>Tetrachloroethylene</u>	<u>127-18-4</u>	<u>0.056</u>	<u>6.0</u>
		<u>1,2,4-Trichlorobenzene</u>	<u>120-82-1</u>	<u>0.055</u>	<u>19</u>
		<u>1,1,2-Trichloroethane</u>	<u>79-00-5</u>	<u>0.054</u>	<u>6.0</u>
		<u>Trichloroethylene</u>	<u>79-01-6</u>	<u>0.054</u>	<u>6.0</u>
K097	<u>Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.</u>	<u>Chlordane (alpha and gamma isomers)</u>	<u>57-74-9</u>	<u>0.0033</u>	<u>0.26</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
550	K098	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
	K099	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

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
551	<u>K101 Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.</u>	<u>o-Nitroaniline</u>	<u>88-74-4</u>	<u>0.27</u>	<u>14</u>
		<u>Arsenic</u>	<u>7440-38-2</u>	<u>1.4</u>	<u>5.0 mg/l TCLP</u>
		<u>Cadmium</u>	<u>7440-43-9</u>	<u>0.69</u>	<u>NA</u>
		<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>NA</u>
		<u>Mercury</u>	<u>7439-97-6</u>	<u>0.15</u>	<u>NA</u>
	<u>K102 Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.</u>	<u>o-Nitrophenol</u>	<u>88-75-5</u>	<u>0.028</u>	<u>13</u>
		<u>Arsenic</u>	<u>7440-38-2</u>	<u>1.4</u>	<u>5.0 mg/l TCLP</u>
		<u>Cadmium</u>	<u>7440-43-9</u>	<u>0.69</u>	<u>NA</u>
		<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>NA</u>
		<u>Mercury</u>	<u>7439-97-6</u>	<u>0.15</u>	<u>NA</u>
	<u>K103 Process residues from aniline extraction from the production of aniline.</u>	<u>Aniline</u>	<u>62-53-3</u>	<u>0.81</u>	<u>14</u>
		<u>Benzene</u>	<u>71-43-2</u>	<u>0.14</u>	<u>10</u>
		<u>2,4-Dinitrophenol</u>	<u>51-28-5</u>	<u>0.12</u>	<u>160</u>
		<u>Nitrobenzene</u>	<u>98-95-3</u>	<u>0.068</u>	<u>14</u>
		<u>Phenol</u>	<u>108-95-2</u>	<u>0.039</u>	<u>6.2</u>
	<u>K104 Combined wastewater streams generated from nitrobenzene/aniline production.</u>	<u>Aniline</u>	<u>62-53-3</u>	<u>0.81</u>	<u>14</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
552	K105 <u>Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.</u>	<u>Benzene</u>	<u>71-43-2</u>	<u>0.14</u>	<u>10</u>
		<u>2,4-Dinitrophenol</u>	<u>51-28-5</u>	<u>0.12</u>	<u>160</u>
		<u>Nitrobenzene</u>	<u>98-95-3</u>	<u>0.068</u>	<u>14</u>
		<u>Phenol</u>	<u>108-95-2</u>	<u>0.039</u>	<u>6.2</u>
		<u>Cyanides (Total)⁷</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
		<u>Benzene</u>	<u>71-43-2</u>	<u>0.14</u>	<u>10</u>
		<u>Chlorobenzene</u>	<u>108-90-7</u>	<u>0.057</u>	<u>6.0</u>
		<u>2-Chlorophenol</u>	<u>95-57-8</u>	<u>0.044</u>	<u>5.7</u>
		<u>o-Dichlorobenzene</u>	<u>95-50-1</u>	<u>0.088</u>	<u>6.0</u>
		<u>p-Dichlorobenzene</u>	<u>106-46-7</u>	<u>0.090</u>	<u>6.0</u>
		<u>Phenol</u>	<u>108-95-2</u>	<u>0.039</u>	<u>6.2</u>
		<u>2,4,5-Trichlorophenol</u>	<u>95-95-4</u>	<u>0.18</u>	<u>7.4</u>
		<u>2,4,6-Trichlorophenol</u>	<u>88-06-2</u>	<u>0.035</u>	<u>7.4</u>
	K106 <u>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.</u>	<u>Mercury</u>	<u>7439-97-6</u>	<u>NA</u>	<u>RMERC</u>
		<u>Mercury</u>	<u>7439-97-6</u>	<u>NA</u>	<u>0.20 mg/l TCLP</u>
	<u>K106 (wastewater treatment sludge from the mercury cell process in chlorine production.) Nonwastewaters that contain less than 260 mg/kg total mercury that are residues from RMERC.</u>				

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³; or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
553	Other K106 nonwastewaters that contain less than 260 mg/kg total mercury and are not residues from RMERC.	Mercury	7439-97-6	NA	0.025 mg/l TCLP
	All K106 wastewaters.	Mercury	7439-97-6	0.15	NA
	K107 Column bottoms from 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
	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

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
K113	<u>Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.</u>	NA	NA	CARBN; or CMBST	CMBST
K114	<u>Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.</u>	NA	NA	CARBN; or CMBST	CMBST
K115	<u>Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.</u>	Nickel	7440-02-0	3.98	11 mg/l TCLP
K116	<u>Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.</u>	NA	NA	CARBN; or CMBST	CMBST
		NA	NA	CARBN; or CMBST	CMBST
K117	<u>Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethane.</u>	Methyl bromide (Bromomethane)	74-83-9	0.11	15
		Chloroform	67-63-3	0.046	6.0
		Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
K118	<u>Spent absorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.</u>	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

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u> <u>Common Name</u>	<u>CAS²No.</u>	<u>Wastewaters</u> <u>Concentration mg/l³ or Technology Code⁴</u>	<u>Nonwastewaters</u> <u>Concentration in mg/kg⁵</u> <u>unless noted as "mg/l TCLP"; or Technology Code</u>
K123	Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenedisithiocarbamic acid and its salts.	NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
K124	Reactor vent scrubber water from the production of ethylenedisithiocarbamic acid and its salts.	NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
K125	Filtration, evaporation, and centrifugation solids from the production of ethylenedisithiocarbamic acid and its salts.	NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
K126	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenedisithiocarbamic 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

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
556	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
		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
556	K142 Tar storage tank residues from the production of coke from coal or from the recovery of coke byproducts produced from coal.	Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Chrysene	218-01-9	0.059	3.4

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
K143	<u>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.</u>	<u>Dibenz(a,h)anthracene</u>	<u>53-70-3</u>	<u>0.055</u>	<u>8.2</u>
		<u>Indeno(1,2,3-cd)pyrene</u>	<u>193-39-5</u>	<u>0.0055</u>	<u>3.4</u>
		<u>Benzene</u>	<u>71-43-2</u>	<u>0.14</u>	<u>10</u>
		<u>Benz(a)anthracene</u>	<u>56-55-3</u>	<u>0.059</u>	<u>3.4</u>
		<u>Benzo(a)pyrene</u>	<u>50-32-8</u>	<u>0.061</u>	<u>3.4</u>
		<u>Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)</u>	<u>205-99-2</u>	<u>0.11</u>	<u>6.8</u>
		<u>Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)</u>	<u>207-08-9</u>	<u>0.11</u>	<u>6.8</u>
		<u>Chrysene</u>	<u>218-01-9</u>	<u>0.059</u>	<u>3.4</u>
		<u>Benzene</u>	<u>71-43-2</u>	<u>0.14</u>	<u>10</u>
		<u>Benz(a)anthracene</u>	<u>56-55-3</u>	<u>0.059</u>	<u>3.4</u>
K144	<u>Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke byproducts produced from coal.</u>	<u>Benz(a)pyrene</u>	<u>50-32-8</u>	<u>0.061</u>	<u>3.4</u>
		<u>Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)</u>	<u>205-99-2</u>	<u>0.11</u>	<u>6.8</u>
		<u>Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)</u>	<u>207-08-9</u>	<u>0.11</u>	<u>6.8</u>
		<u>Chrysene</u>	<u>218-01-9</u>	<u>0.059</u>	<u>3.4</u>
		<u>Benz(a)anthracene</u>	<u>56-55-3</u>	<u>0.059</u>	<u>3.4</u>
		<u>Benzo(a)pyrene</u>	<u>50-32-8</u>	<u>0.061</u>	<u>3.4</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
558	<u>K145 Residues from naphthalene collection and recovery operations from the recovery of coke byproducts produced from coal.</u>	<u>Dibenz(a,h)anthracene</u>	<u>53-70-3</u>	<u>0.055</u>	<u>8.2</u>
		<u>Benzene</u>	<u>71-43-2</u>	<u>0.14</u>	<u>10</u>
		<u>Benz(a)anthracene</u>	<u>56-55-3</u>	<u>0.059</u>	<u>3.4</u>
		<u>Benzo(a)pyrene</u>	<u>50-32-8</u>	<u>0.061</u>	<u>3.4</u>
	<u>K147 Tar storage tank residues from coal tar refining.</u>	<u>Chrysene</u>	<u>218-01-9</u>	<u>0.059</u>	<u>3.4</u>
		<u>Dibenz(a,h)anthracene</u>	<u>53-70-3</u>	<u>0.055</u>	<u>8.2</u>
		<u>Naphthalene</u>	<u>91-20-3</u>	<u>0.059</u>	<u>5.6</u>
		<u>Benzene</u>	<u>71-43-2</u>	<u>0.14</u>	<u>10</u>
		<u>Benz(a)anthracene</u>	<u>56-55-3</u>	<u>0.059</u>	<u>3.4</u>
		<u>Benzo(a)pyrene</u>	<u>50-32-8</u>	<u>0.061</u>	<u>3.4</u>
		<u>Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)</u>	<u>205-99-2</u>	<u>0.11</u>	<u>6.8</u>
		<u>Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)</u>	<u>207-08-9</u>	<u>0.11</u>	<u>6.8</u>
		<u>Chrysene</u>	<u>218-01-9</u>	<u>0.059</u>	<u>3.4</u>
		<u>Dibenz(a,h)anthracene</u>	<u>53-70-3</u>	<u>0.055</u>	<u>8.2</u>
		<u>Indeno(1,2,3-cd)pyrene</u>	<u>193-39-5</u>	<u>0.0055</u>	<u>3.4</u>
	<u>K148 Residues from coal tar distillation, including, but not limited to, still bottoms.</u>	<u>Benz(a)anthracene</u>	<u>56-55-3</u>	<u>0.059</u>	<u>3.4</u>
		<u>Benzo(a)pyrene</u>	<u>50-32-8</u>	<u>0.061</u>	<u>3.4</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
559	K149 <u>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.)</u>	<u>Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)</u>	<u>205-99-2</u>	<u>0.11</u>	<u>6.8</u>
		<u>Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)</u>	<u>207-08-9</u>	<u>0.11</u>	<u>6.8</u>
		<u>Chrysene</u>	<u>218-01-9</u>	<u>0.059</u>	<u>3.4</u>
		<u>Dibenz(a,h)anthracene</u>	<u>53-70-3</u>	<u>0.055</u>	<u>8.2</u>
		<u>Indeno(1,2,3-cd)pyrene</u>	<u>193-39-5</u>	<u>0.0055</u>	<u>3.4</u>
		<u>Chlorobenzene</u>	<u>108-90-7</u>	<u>0.057</u>	<u>6.0</u>
		<u>Chloroform</u>	<u>67-66-3</u>	<u>0.046</u>	<u>6.0</u>
		<u>Chloromethane</u>	<u>74-87-3</u>	<u>0.19</u>	<u>30</u>
		<u>p-Dichlorobenzene</u>	<u>106-46-7</u>	<u>0.090</u>	<u>6.0</u>
		<u>Hexachlorobenzene</u>	<u>118-74-1</u>	<u>0.055</u>	<u>10</u>
		<u>Pentachlorobenzene</u>	<u>608-93-5</u>	<u>0.055</u>	<u>10</u>
		<u>1,2,4,5-Tetrachlorobenzene</u>	<u>95-94-3</u>	<u>0.055</u>	<u>14</u>
		<u>Toluene</u>	<u>108-88-3</u>	<u>0.080</u>	<u>10</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
560	<u>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.</u>	<u>Carbon tetrachloride</u>	<u>56-23-5</u>	<u>0.057</u>	<u>6.0</u>
		<u>Chloroform</u>	<u>67-66-3</u>	<u>0.046</u>	<u>6.0</u>
		<u>Chloromethane</u>	<u>74-87-3</u>	<u>0.19</u>	<u>30</u>
		<u>p-Dichlorobenzene</u>	<u>106-46-7</u>	<u>0.090</u>	<u>6.0</u>
		<u>Hexachlorobenzene</u>	<u>118-74-1</u>	<u>0.055</u>	<u>10</u>
		<u>Pentachlorobenzene</u>	<u>608-93-5</u>	<u>0.055</u>	<u>10</u>
		<u>1,2,4,5-Tetrachlorobenzene</u>	<u>95-94-3</u>	<u>0.055</u>	<u>14</u>
		<u>1,1,2,2-Tetrachloroethane</u>	<u>79-34-5</u>	<u>0.057</u>	<u>6.0</u>
		<u>Tetrachloroethylene</u>	<u>127-18-4</u>	<u>0.056</u>	<u>6.0</u>
		<u>1,2,4-Trichlorobenzene</u>	<u>120-82-1</u>	<u>0.055</u>	<u>19</u>
		<u>Benzene</u>	<u>71-43-2</u>	<u>0.14</u>	<u>10</u>
	<u>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.</u>	<u>Carbon tetrachloride</u>	<u>56-23-5</u>	<u>0.057</u>	<u>6.0</u>
		<u>Chloroform</u>	<u>67-66-3</u>	<u>0.046</u>	<u>6.0</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
501	K156 Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes.	<u>Hexachlorobenzene</u>	<u>118-74-1</u>	<u>0.055</u>	<u>10</u>
		<u>Pentachlorobenzene</u>	<u>608-93-5</u>	<u>0.055</u>	<u>10</u>
		<u>1,2,4,5-Tetrachlorobenzene</u>	<u>95-94-3</u>	<u>0.055</u>	<u>14</u>
		<u>Tetrachloroethylene</u>	<u>127-18-4</u>	<u>0.056</u>	<u>6.0</u>
		<u>Toluene</u>	<u>108-88-3</u>	<u>0.080</u>	<u>10</u>
		<u>Acetonitrile</u>	<u>75-05-8</u>	<u>5.6</u>	<u>1.8</u>
		<u>Acetophenone</u>	<u>96-86-2</u>	<u>0.010</u>	<u>9.7</u>
		<u>Aniline</u>	<u>62-53-3</u>	<u>0.81</u>	<u>14</u>
		<u>Benomyl</u>	<u>17804-35-2</u>	<u>0.056</u>	<u>1.4</u>
		<u>Benzene</u>	<u>71-43-2</u>	<u>0.14</u>	<u>10</u>
		<u>Carbaryl</u>	<u>63-25-21</u>	<u>0.006</u>	<u>0.14</u>
		<u>Carbenzadim</u>	<u>10605-21-7</u>	<u>0.056</u>	<u>1.4</u>
		<u>Carbofuran</u>	<u>1563-66-2</u>	<u>0.006</u>	<u>0.14</u>
		<u>Carbosulfan</u>	<u>55285-14-8</u>	<u>0.028</u>	<u>1.4</u>
		<u>Chlorobenzene</u>	<u>108-90-7</u>	<u>0.057</u>	<u>6.0</u>
		<u>Chloroform</u>	<u>67-66-3</u>	<u>0.046</u>	<u>6.0</u>
		<u>o-Dichlorobenzene</u>	<u>95-50-1</u>	<u>0.088</u>	<u>6.0</u>
		<u>Methomyl</u>	<u>16752-77-5</u>	<u>0.028</u>	<u>0.14</u>
		<u>Methylene chloride</u>	<u>75-09-2</u>	<u>0.089</u>	<u>30</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/ TCLP"; or Technology Code</u>
562	<u>K157 Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes.</u>	<u>Methyl ethyl ketone</u>	<u>78-93-3</u>	<u>0.28</u>	<u>36</u>
		<u>Naphthalene</u>	<u>91-20-3</u>	<u>0.059</u>	<u>5.6</u>
		<u>Phenol</u>	<u>108-95-2</u>	<u>0.039</u>	<u>6.2</u>
		<u>Pyridine</u>	<u>110-86-1</u>	<u>0.014</u>	<u>16</u>
		<u>Toluene</u>	<u>108-88-3</u>	<u>0.080</u>	<u>10</u>
		<u>Triethylamine</u>	<u>121-44-8</u>	<u>0.081</u>	<u>1.5</u>
		<u>Carbon tetrachloride</u>	<u>56-23-5</u>	<u>0.057</u>	<u>6.0</u>
		<u>Chloroform</u>	<u>67-66-3</u>	<u>0.046</u>	<u>6.0</u>
		<u>Chloromethane</u>	<u>74-87-3</u>	<u>0.19</u>	<u>30</u>
		<u>Methomyl</u>	<u>16752-77-5</u>	<u>0.028</u>	<u>0.14</u>
		<u>Methylene chloride</u>	<u>75-09-2</u>	<u>0.089</u>	<u>30</u>
		<u>Methyl ethyl ketone</u>	<u>78-93-3</u>	<u>0.28</u>	<u>36</u>
		<u>o-Phenylenediamine</u>	<u>95-54-5</u>	<u>0.056</u>	<u>5.6</u>
		<u>Pyridine</u>	<u>110-86-1</u>	<u>0.014</u>	<u>16</u>
		<u>Triethylamine</u>	<u>121-44-8</u>	<u>0.081</u>	<u>1.5</u>
<u>K158</u>	<u>Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes.</u>	<u>Benomyl</u>	<u>17804-35-2</u>	<u>0.056</u>	<u>1.4</u>
		<u>Benzene</u>	<u>71-43-2</u>	<u>0.14</u>	<u>10</u>
		<u>Carbenzadim</u>	<u>10605-21-7</u>	<u>0.056</u>	<u>1.4</u>
		<u>Carbofuran</u>	<u>1563-66-2</u>	<u>0.006</u>	<u>0.14</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³; or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
563	K159 <u>Organics from the treatment of thiocarbamate wastes.</u>	<u>Carbosulfan</u>	<u>55285-14-8</u>	<u>0.028</u>	<u>1.4</u>
		<u>Chloroform</u>	<u>67-66-3</u>	<u>0.046</u>	<u>6.0</u>
		<u>Methylene chloride</u>	<u>75-09-2</u>	<u>0.089</u>	<u>30</u>
		<u>Phenol</u>	<u>108-95-2</u>	<u>0.039</u>	<u>6.2</u>
		<u>Benzene</u>	<u>71-43-2</u>	<u>0.14</u>	<u>10</u>
		<u>Butylate</u>	<u>2008-41-5</u>	<u>0.042</u>	<u>1.4</u>
		<u>EPTC (Eptam)</u>	<u>759-94-4</u>	<u>0.042</u>	<u>1.4</u>
		<u>Molinate</u>	<u>2212-67-1</u>	<u>0.042</u>	<u>1.4</u>
		<u>Pebulate</u>	<u>1114-71-2</u>	<u>0.042</u>	<u>1.4</u>
		<u>Vernolate</u>	<u>1929-77-7</u>	<u>0.042</u>	<u>1.4</u>
	K161 <u>Purification solids (including filtration, evaporation, and centrifugation solids), baghouse dust and floor sweepings, from the production of dithiocarbamate acids and their salts¹⁰.</u>	<u>Antimony</u>	<u>7440-36-0</u>	<u>1.9</u>	<u>1.15 mg/l TCLP</u>
		<u>Arsenic</u>	<u>7440-38-2</u>	<u>1.4</u>	<u>5.0 mg/l TCLP</u>
		<u>Carbon disulfide</u>	<u>75-15-0</u>	<u>3.8</u>	<u>4.8 mg/l TCLP</u>
		<u>Dithiocarbamates (total)</u>	<u>NA</u>	<u>0.028</u>	<u>28</u>
		<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>0.75 mg/l TCLP</u>
		<u>Nickel</u>	<u>7440-02-0</u>	<u>3.98</u>	<u>11.0 mg/l TCLP</u>
		<u>Selenium</u>	<u>7782-49-2</u>	<u>0.82</u>	<u>5.7 mg/l TCLP</u>
K169	<u>Crude oil tank sediment from petroleum refining operations.</u>	<u>Benz(a)anthracene</u>	<u>56-55-3</u>	<u>0.059</u>	<u>3.4</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
564	K170 Clarified slurry oil sediment from petroleum refining operations.	<u>Benzene</u>	<u>71-43-2</u>	<u>0.14</u>	<u>10</u>
		<u>Benzo(g,h,i)perylene</u>	<u>191-24-2</u>	<u>0.0055</u>	<u>1.8</u>
		<u>Chrysene</u>	<u>218-01-9</u>	<u>0.059</u>	<u>3.4</u>
		<u>Ethyl benzene</u>	<u>100-41-4</u>	<u>0.057</u>	<u>10</u>
		<u>Fluorene</u>	<u>86-73-7</u>	<u>0.059</u>	<u>3.4</u>
		<u>Naphthalene</u>	<u>91-20-3</u>	<u>0.059</u>	<u>5.6</u>
		<u>Phenanthrene</u>	<u>81-05-8</u>	<u>0.059</u>	<u>5.6</u>
		<u>Pyrene</u>	<u>129-00-0</u>	<u>0.067</u>	<u>8.2</u>
		<u>Toluene (methyl benzene)</u>	<u>108-88-3</u>	<u>0.080</u>	<u>10</u>
		<u>Xylene(s)(Total)</u>	<u>1330-20-7</u>	<u>0.32</u>	<u>30</u>
		<u>Benz(a)anthracene</u>	<u>56-55-3</u>	<u>0.059</u>	<u>3.4</u>
		<u>Benzene</u>	<u>71-43-2</u>	<u>0.14</u>	<u>10</u>
		<u>Benzo(g,h,i)perylene</u>	<u>191-24-2</u>	<u>0.0055</u>	<u>1.8</u>
		<u>Chrysene</u>	<u>218-01-9</u>	<u>0.059</u>	<u>3.4</u>
		<u>Dibenz(a,h)anthracene</u>	<u>53-70-3</u>	<u>0.055</u>	<u>8.2</u>
		<u>Ethyl benzene</u>	<u>100-41-4</u>	<u>0.057</u>	<u>10</u>
		<u>Fluorene</u>	<u>86-73-7</u>	<u>0.059</u>	<u>3.4</u>
		<u>Indeno(1,2,3-cd)pyrene</u>	<u>193-39-5</u>	<u>0.0055</u>	<u>3.4</u>
		<u>Naphthalene</u>	<u>91-20-3</u>	<u>0.059</u>	<u>5.6</u>
		<u>Phenanthrene</u>	<u>81-05-8</u>	<u>0.059</u>	<u>5.6</u>
		<u>Pyrene</u>	<u>129-00-0</u>	<u>0.067</u>	<u>8.2</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³, or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
565	<u>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).</u>	<u>Toluene (Methyl benzene)</u>	<u>108-88-3</u>	<u>0.080</u>	<u>10</u>
		<u>Xylene(s)(Total)</u>	<u>1330-20-7</u>	<u>0.32</u>	<u>30</u>
		<u>Benz(a)anthracene</u>	<u>56-55-3</u>	<u>0.059</u>	<u>3.4</u>
		<u>Benzene</u>	<u>71-43-2</u>	<u>0.14</u>	<u>10</u>
		<u>Chrysene</u>	<u>218-01-9</u>	<u>0.059</u>	<u>3.4</u>
		<u>Ethyl benzene</u>	<u>100-41-4</u>	<u>0.057</u>	<u>10</u>
		<u>Naphthalene</u>	<u>91-20-3</u>	<u>0.059</u>	<u>5.6</u>
		<u>Phenanthrene</u>	<u>81-05-8</u>	<u>0.059</u>	<u>5.6</u>
		<u>Pyrene</u>	<u>129-00-0</u>	<u>0.67</u>	<u>8.2</u>
		<u>Toluene (Methyl benzene)</u>	<u>108-88-3</u>	<u>0.080</u>	<u>10</u>
		<u>Xylene(s)(Total)</u>	<u>1330-20-7</u>	<u>0.32</u>	<u>30</u>
		<u>Arsenic</u>	<u>7740-38-2</u>	<u>1.4</u>	<u>5 mg/l TCLP</u>
		<u>Nickel</u>	<u>7440-02-0</u>	<u>3.98</u>	<u>11.0 mg/l TCLP</u>
		<u>Vanadium</u>	<u>7440-62-2</u>	<u>4.3</u>	<u>1.6 mg/l TCLP</u>
		<u>Reactive sulfides</u>	<u>NA</u>	<u>DEACT</u>	<u>DEACT</u>
<u>K172</u>	<u>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).</u>	<u>Benzene</u>	<u>71-43-2</u>	<u>0.14</u>	<u>10</u>
		<u>Ethyl benzene</u>	<u>100-41-4</u>	<u>0.57</u>	<u>10</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

566

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
		<u>Toluene (Methyl benzene)</u>	<u>108-88-3</u>	<u>0.080</u>	<u>10</u>
		<u>Xylene(s)(Total)</u>	<u>1330-20-7</u>	<u>0.32</u>	<u>30</u>
		<u>Antimony</u>	<u>7740-36-0</u>	<u>1.9</u>	<u>1.15 mg/l TCLP</u>
		<u>Arsenic</u>	<u>7740-38-2</u>	<u>1.4</u>	<u>5 mg/l TCLP</u>
		<u>Nickel</u>	<u>7440-02-0</u>	<u>3.98</u>	<u>11.0 mg/l TCLP</u>
		<u>Vanadium</u>	<u>7440-62-2</u>	<u>4.3</u>	<u>1.6 mg/l TCLP</u>
		<u>Reactive sulfides</u>	<u>NA</u>	<u>DEACT</u>	<u>DEACT</u>
K174	<u>Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer.</u>	<u>1,2,3,4,6,7,8- Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)</u>	<u>35822-46-9</u>	<u>0.000035 or CMBST¹¹</u>	<u>0.0025 or CMBST¹¹</u>
		<u>1,2,3,4,6,7,8- Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)</u>	<u>67562-39-4</u>	<u>0.000035 or CMBST¹¹</u>	<u>0.0025 or CMBST¹¹</u>
		<u>1,2,3,4,7,8,9- Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)</u>	<u>55673-89-7</u>	<u>0.000035 or CMBST¹¹</u>	<u>0.0025 or CMBST¹¹</u>
		<u>HxCDDs (All Hexachlorodibenzo-p-dioxins)</u>	<u>34465-46-8</u>	<u>0.000063 or CMBST¹¹</u>	<u>0.001 or CMBST¹¹</u>
		<u>HxCDFs (All Hexachlorodibenzofurans)</u>	<u>55684-94-1</u>	<u>0.000063 or CMBST¹¹</u>	<u>0.001 or CMBST¹¹</u>
		<u>1,2,3,4,6,7,8,9- Octachlorodibenzo-p-dioxin (OCDD)</u>	<u>3268-87-9</u>	<u>0.000063 or CMBST¹¹</u>	<u>0.005 or CMBST¹¹</u>
		<u>1,2,3,4,6,7,8,9- Octachlorodibenzofuran (OCDF)</u>	<u>39001-02-0</u>	<u>0.000063 or CMBST¹¹</u>	<u>0.005 or CMBST¹¹</u>
		<u>PeCDDs (All Pentachlorodibenzo-p-dioxins)</u>	<u>36088-22-9</u>	<u>0.000063 or CMBST¹¹</u>	<u>0.001 or CMBST¹¹</u>
		<u>PeCDFs (All Pentachlorodibenzofurans)</u>	<u>30402-15-4</u>	<u>0.000035 or CMBST¹¹</u>	<u>0.001 or CMBST¹¹</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
567	K175 <u>Wastewater treatment sludge from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process.</u>	<u>TCDDs (All Tetrachlorodibenzo-p-dioxins)</u>	<u>41903-57-5</u>	<u>0.000063 or CMBST¹¹</u>	<u>0.001 or CMBST¹¹</u>
		<u>TCDFs (All Tetrachlorodibenzofurans)</u>	<u>55722-27-5</u>	<u>0.000063 or CMBST¹¹</u>	<u>0.001 or CMBST¹¹</u>
		<u>Arsenic</u>	<u>7440-38-2</u>	<u>1.4</u>	<u>5.0 mg/l TCLP</u>
		<u>Mercury¹²</u>	<u>7438-97-6</u>	<u>NA</u>	<u>0.025 mg/l TCLP</u>
	All K175 wastewaters.	<u>pH¹²</u>	<u>NA</u>	<u>NA</u>	<u>pH ≤ 6.0</u>
		<u>Mercury</u>	<u>7438-97-6</u>	<u>0.15</u>	<u>NA</u>
	K176 <u>Baghouse filters from the production of antimony oxide, including filters from the production of intermediates (for example, antimony metal or crude antimony oxide).</u>	<u>Antimony</u>	<u>7440-36-0</u>	<u>1.9</u>	<u>1.15 mg/l TCLP</u>
		<u>Arsenic</u>	<u>7440-38-2</u>	<u>1.4</u>	<u>5.0 mg/l TCLP</u>
		<u>Cadmium</u>	<u>7440-43-9</u>	<u>0.69</u>	<u>0.11 mg/l TCLP</u>
		<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>0.75 mg/l TCLP</u>
	K177 <u>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).</u>	<u>Mercury</u>	<u>7439-97-6</u>	<u>0.15</u>	<u>0.025 mg/l TCLP</u>
		<u>Antimony</u>	<u>7440-36-0</u>	<u>1.9</u>	<u>1.15 mg/l TCLP</u>
		<u>Arsenic</u>	<u>7440-38-2</u>	<u>1.4</u>	<u>5.0 mg/l TCLP</u>
		<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>0.75 mg/l TCLP</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
K178	<u>Residues from manufacturing and manufacturing-site storage of ferric chloride from acids formed during the production of titanium dioxide using the chloride-ilmenite process.</u>	<u>1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)</u>	<u>35822-39-4</u>	<u>0.000035 or CMBST¹¹</u>	<u>0.0025 or CMBST¹¹</u>
		<u>1,2,3,4,6,7,8- Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)</u>	<u>67562-39-4</u>	<u>0.000035 or CMBST¹¹</u>	<u>0.0025 or CMBST¹¹</u>
		<u>1,2,3,4,6,7,9- Heptachlorodibenzofuran (1,2,3,4,6,7,9-HpCDF)</u>	<u>55673-89-7</u>	<u>0.000035 or CMBST¹¹</u>	<u>0.0025 or CMBST¹¹</u>
		<u>HxCDDs (All Hexachlorodibenzo-p-dioxins)</u>	<u>34465-46-8</u>	<u>0.000063 or CMBST¹¹</u>	<u>0.001 or CMBST¹¹</u>
		<u>HxCDFs (All Hexachlorodibenzofurans)</u>	<u>55684-94-1</u>	<u>0.000063 or CMBST¹¹</u>	<u>0.001 or CMBST¹¹</u>
		<u>1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)</u>	<u>3268-87-9</u>	<u>0.000063 or CMBST¹¹</u>	<u>0.005 or CMBST¹¹</u>
		<u>1,2,3,4,6,7,8,9- Octachlorodibenzofuran (OCDF)</u>	<u>39001-02-0</u>	<u>0.000063 or CMBST¹¹</u>	<u>0.005 or CMBST¹¹</u>
		<u>PeCDDs (All Pentachlorodibenzo-p-dioxins)</u>	<u>36088-22-9</u>	<u>0.000063 or CMBST¹¹</u>	<u>0.001 or CMBST¹¹</u>
		<u>PeCDFs (All Pentachlorodibenzofurans)</u>	<u>30402-15-4</u>	<u>0.000035 or CMBST¹¹</u>	<u>0.001 or CMBST¹¹</u>
		<u>TCDDs (All Tetrachlorodibenzo-p-dioxins)</u>	<u>41903-57-5</u>	<u>0.000063 or CMBST¹¹</u>	<u>0.001 or CMBST¹¹</u>
		<u>TCDFs (All Tetrachlorodibenzofurans)</u>	<u>55722-27-5</u>	<u>0.000063 or CMBST¹¹</u>	<u>0.001 or CMBST¹¹</u>
		<u>Thallium</u>	<u>7440-28-0</u>	<u>1.4</u>	<u>0.20 mg/l TCLP</u>
P001	<u>Warfarin, and salts, when present at concentrations greater than 0.3 percent.</u>	<u>Warfarin</u>	<u>81-81-2</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
P002	<u>1-Acetyl-2-thiourea</u>	<u>1-Acetyl-2-thiourea</u>	<u>591-08-2</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³, or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
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
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

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
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) ^Z	57-12-5	1.2	590
		Cyanides (Amenable) ^Z	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) ^Z	57-12-5	1.2	590
		Cyanides (Amenable) ^Z	57-12-5	0.86	30
P030	Cyanides (soluble salts and complexes)	Cyanides (Total) ^Z	57-12-5	1.2	590
		Cyanides (Amenable) ^Z	57-12-5	0.86	30
P031	Cyanogen	Cyanogen	460-19-5	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
P033	Cyanogen chloride	Cyanogen chloride	506-77-4	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³, or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
P034	<u>2-Cyclohexyl-4,6-dinitrophenol</u>	<u>2-Cyclohexyl-4,6-dinitrophenol</u>	<u>131-89-5</u>	<u>(WETOX or CHOXD) fb</u> <u>CARBN; or CMBST</u>	<u>CMBST</u>
P036	<u>Dichlorophenylarsine</u>	<u>Arsenic</u>	<u>7440-38-2</u>	<u>1.4</u>	<u>5.0 mg/l TCLP</u>
P037	<u>Dieldrin</u>	<u>Dieldrin</u>	<u>60-57-1</u>	<u>0.017</u>	<u>0.13</u>
P038	<u>Diethylarsine</u>	<u>Arsenic</u>	<u>7440-38-2</u>	<u>1.4</u>	<u>5.0 mg/l TCLP</u>
P039	<u>Disulfoton</u>	<u>Disulfoton</u>	<u>298-04-4</u>	<u>0.017</u>	<u>6.2</u>
P040	<u>0,0-Diethyl O-pyrazinyl phosphorothioate</u>	<u>0,0-Diethyl O-pyrazinyl phosphorothioate</u>	<u>297-97-2</u>	<u>CARBN; or CMBST</u>	<u>CMBST</u>
P041	<u>Diethyl-p-nitrophenyl phosphate</u>	<u>Diethyl-p-nitrophenyl phosphate</u>	<u>311-45-5</u>	<u>CARBN; or CMBST</u>	<u>CMBST</u>
P042	<u>Epinephrine</u>	<u>Epinephrine</u>	<u>51-43-4</u>	<u>(WETOX or CHOXD) fb</u> <u>CARBN; or CMBST</u>	<u>CMBST</u>
P043	<u>Diisopropylfluorophosphate (DFP)</u>	<u>Diisopropylfluorophosphate (DFP)</u>	<u>55-91-4</u>	<u>CARBN; or CMBST</u>	<u>CMBST</u>
P044	<u>Dimethoate</u>	<u>Dimethoate</u>	<u>60-51-5</u>	<u>CARBN; or CMBST</u>	<u>CMBST</u>
P045	<u>Thiofanox</u>	<u>Thiofanox</u>	<u>39196-18-4</u>	<u>(WETOX or CHOXD) fb</u> <u>CARBN; or CMBST</u>	<u>CMBST</u>
P046	<u>Alpha, alpha-Dimethyl-phenethylamine</u>	<u>alpha, alpha-Dimethyl-phenethylamine</u>	<u>122-09-8</u>	<u>(WETOX or CHOXD) fb</u> <u>CARBN; or CMBST</u>	<u>CMBST</u>
P047	<u>4,6-Dinitro-o-cresol</u>	<u>4,6-Dinitro-o-cresol</u>	<u>543-52-1</u>	<u>0.28</u>	<u>160</u>
	<u>4,6-Dinitro-o-cresol salts</u>	<u>NA</u>	<u>NA</u>	<u>(WETOX or CHOXD) fb</u> <u>CARBN; or CMBST</u>	<u>CMBST</u>
P048	<u>2,4-Dinitrophenol</u>	<u>2,4-Dinitrophenol</u>	<u>51-28-5</u>	<u>0.12</u>	<u>160</u>
P049	<u>Dithiobiuret</u>	<u>Dithiobiuret</u>	<u>541-53-7</u>	<u>(WETOX or CHOXD) fb</u> <u>CARBN; or CMBST</u>	<u>CMBST</u>
P050	<u>Endosulfan</u>	<u>Endosulfan I</u>	<u>939-98-8</u>	<u>0.023</u>	<u>0.066</u>
		<u>Endosulfan II</u>	<u>33213-6-5</u>	<u>0.029</u>	<u>0.13</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
		<u>Endosulfan sulfate</u>	<u>1031-07-8</u>	<u>0.029</u>	<u>0.13</u>
<u>P051</u>	<u>Endrin</u>	<u>Endrin</u>	<u>72-20-8</u>	<u>0.0028</u>	<u>0.13</u>
		<u>Endrin aldehyde</u>	<u>7421-93-4</u>	<u>0.025</u>	<u>0.13</u>
<u>P054</u>	<u>Aziridine</u>	<u>Aziridine</u>	<u>151-56-4</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
<u>P056</u>	<u>Fluorine</u>	<u>Fluoride (measured in wastewaters only)</u>	<u>16964-48-8</u>	<u>35</u>	<u>ADGAS fb NEUTR</u>
<u>P057</u>	<u>Fluoroacetamide</u>	<u>Fluoroacetamide</u>	<u>640-19-7</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
<u>P058</u>	<u>Fluoroacetic acid, sodium salt</u>	<u>Fluoroacetic acid, sodium salt</u>	<u>62-74-8</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
<u>P059</u>	<u>Heptachlor</u>	<u>Heptachlor</u>	<u>76-44-8</u>	<u>0.0012</u>	<u>0.066</u>
		<u>Heptachlor epoxide</u>	<u>10234-57-3</u>	<u>0.016</u>	<u>0.066</u>
<u>P060</u>	<u>Isodrin</u>	<u>Isodrin</u>	<u>465-73-6</u>	<u>0.021</u>	<u>0.066</u>
<u>P062</u>	<u>Hexaethyl tetraphosphate</u>	<u>Hexaethyl tetraphosphate</u>	<u>757-58-4</u>	<u>CARBN; or CMBST</u>	<u>CMBST</u>
<u>P063</u>	<u>Hydrogen cyanide</u>	<u>Cyanides (Total)^Z</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
		<u>Cyanides (Amenable)^Z</u>	<u>57-12-5</u>	<u>0.86</u>	<u>30</u>
<u>P064</u>	<u>Isocyanic acid, ethyl ester</u>	<u>Isocyanic acid, ethyl ester</u>	<u>624-83-9</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
<u>P065</u>	<u>Mercury fulminate nonwastewaters, regardless of their total mercury content, that are not incinerator residues or are not residues from RMERC.</u>	<u>Mercury</u>	<u>7439-97-6</u>	<u>NA</u>	<u>IMERC</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³; or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
573	<u>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.</u>	<u>Mercury</u>	<u>7339-97-6</u>	<u>NA</u>	<u>RMERC</u>
	<u>Mercury fulminate nonwastewaters that are residues from RMERC and contain less than 260 mg/kg total mercury.</u>	<u>Mercury</u>	<u>7439-97-6</u>	<u>NA</u>	<u>0.20 mg/l TCLP</u>
	<u>Mercury fulminate nonwastewaters that are incinerator residues and contain less than 260 mg/kg total mercury.</u>	<u>Mercury</u>	<u>7439-97-6</u>	<u>NA</u>	<u>0.025 mg/l TCLP</u>
	<u>All mercury fulminate wastewaters.</u>	<u>Mercury</u>	<u>7439-97-6</u>	<u>0.15</u>	<u>NA</u>
	<u>P066 Methomyl</u>	<u>Methomyl</u>	<u>16752-77-5</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
	<u>P067 2-Methyl-aziridine</u>	<u>2-Methyl-aziridine</u>	<u>75-55-8</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
	<u>P068 Methyl hydrazine</u>	<u>Methyl hydrazine</u>	<u>60-34-4</u>	<u>CHOXD; CHRED; CARBN; BIODG; or CMBST</u>	<u>CHOXD; CHRED; OR CMBST</u>
	<u>P069 2-Methylacetonitrile</u>	<u>2-Methylacetonitrile</u>	<u>75-86-5</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
	<u>P070 Aldicarb</u>	<u>Aldicarb</u>	<u>116-06-3</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
	<u>P071 Methyl parathion</u>	<u>Methyl parathion</u>	<u>298-00-0</u>	<u>0.014</u>	<u>4.6</u>
	<u>P072 1-Naphthyl-2-thiourea</u>	<u>1-Naphthyl-2-thiourea</u>	<u>86-88-4</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
	<u>P073 Nickel carbonyl</u>	<u>Nickel</u>	<u>7440-02-0</u>	<u>3.98</u>	<u>11.0 mg/l TCLP</u>
P074	<u>Nickel-cyanide</u>	<u>Cyanides (Total)⁷</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
		<u>Cyanides (Amenable)⁷</u>	<u>57-12-5</u>	<u>0.86</u>	<u>30</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

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<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
		<u>Nickel</u>	<u>7440-02-0</u>	<u>3.98</u>	<u>11.0 mg/l TCLP</u>
<u>P075</u>	<u>Nicotine and salts</u>	<u>Nicotine and salts</u>	<u>54-11-5</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
<u>P076</u>	<u>Nitric oxide</u>	<u>Nitric oxide</u>	<u>10102-43-9</u>	<u>ADGAS</u>	<u>ADGAS</u>
<u>P077</u>	<u>p-Nitroaniline</u>	<u>p-Nitroaniline</u>	<u>100-01-6</u>	<u>0.028</u>	<u>28</u>
<u>P078</u>	<u>Nitrogen dioxide</u>	<u>Nitrogen dioxide</u>	<u>10102-44-0</u>	<u>ADGAS</u>	<u>ADGAS</u>
<u>P081</u>	<u>Nitroglycerin</u>	<u>Nitroglycerin</u>	<u>55-63-0</u>	<u>CHOXD; CHRED; CARBN; BIODG or CMBST</u>	<u>CHOXD; CHRED; or CMBST</u>
<u>P082</u>	<u>N-Nitrosodimethylamine</u>	<u>N-Nitrosodimethylamine</u>	<u>62-75-9</u>	<u>0.40</u>	<u>2.3</u>
<u>P084</u>	<u>N-Nitrosomethylvinylamine</u>	<u>N-Nitrosomethylvinylamine</u>	<u>4549-40-0</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
<u>P085</u>	<u>Octamethylpyrophosphoramide</u>	<u>Octamethylpyrophosphoramide</u>	<u>152-16-9</u>	<u>CARBN; or CMBST</u>	<u>CMBST</u>
<u>P087</u>	<u>Osmium tetroxide</u>	<u>Osmium tetroxide</u>	<u>20816-12-0</u>	<u>RMETL; or RTHRM</u>	<u>RMETL; or RTHRM</u>
<u>P088</u>	<u>Endothall</u>	<u>Endothall</u>	<u>145-73-3</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
<u>P089</u>	<u>Parathion</u>	<u>Parathion</u>	<u>56-38-2</u>	<u>0.014</u>	<u>4.6</u>
<u>P092</u>	<u>Phenyl mercuric acetate nonwastewaters, regardless of their total mercury content, that are not incinerator residues or are not residues from RMERC.</u>	<u>Mercury</u>	<u>7439-97-6</u>	<u>NA</u>	<u>IMERC; or RMERC</u>
	<u>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.</u>	<u>Mercury</u>	<u>7439-97-6</u>	<u>NA</u>	<u>RMERC</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³, or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
	<u>Phenyl mercuric acetate nonwastewaters that are residues from RMERC and contain less than 160 mg/kg total mercury.</u>	<u>Mercury</u>	<u>7439-97-6</u>	<u>NA</u>	<u>0.20 mg/l TCLP</u>
	<u>Phenyl mercuric acetate nonwastewaters that are incinerator residues and contain less than 260 mg/kg total mercury.</u>	<u>Mercury</u>	<u>7439-97-6</u>	<u>NA</u>	<u>0.025 mg/l TCLP</u>
	<u>All phenyl mercuric acetate wastewaters.</u>	<u>Mercury</u>	<u>7439-97-6</u>	<u>0.15</u>	<u>NA</u>
<u>P093</u>	<u>Phenylthiourea</u>	<u>Phenylthiourea</u>	<u>103-85-5</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
<u>P094</u>	<u>Phorate</u>	<u>Phorate</u>	<u>298-02-2</u>	<u>0.021</u>	<u>4.6</u>
<u>P095</u>	<u>Phosgene</u>	<u>Phosgene</u>	<u>75-44-5</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
<u>P096</u>	<u>Phosphine</u>	<u>Phosphine</u>	<u>7803-51-2</u>	<u>CHOXD; CHRED; or CMBST</u>	<u>CHOXD; CHRED; or CMBST</u>
<u>P097</u>	<u>Famphur</u>	<u>Famphur</u>	<u>52-85-7</u>	<u>0.017</u>	<u>15</u>
<u>P098</u>	<u>Potassium cyanide</u>	<u>Cyanides (Total)⁷</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
		<u>Cyanides (Amenable)⁷</u>	<u>57-12-5</u>	<u>0.86</u>	<u>30</u>
<u>P099</u>	<u>Potassium silver cyanide</u>	<u>Cyanides (Total)⁷</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
		<u>Cyanides (Amenable)⁷</u>	<u>57-12-5</u>	<u>0.86</u>	<u>30</u>
		<u>Silver</u>	<u>7440-22-4</u>	<u>0.43</u>	<u>0.14 mg/l TCLP</u>
<u>P101</u>	<u>Ethyl cyanide (Propanenitrile)</u>	<u>Ethyl cyanide (Propanenitrile)</u>	<u>107-12-0</u>	<u>0.24</u>	<u>360</u>
<u>P102</u>	<u>Propargyl alcohol</u>	<u>Propargyl alcohol</u>	<u>107-19-7</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
<u>P103</u>	<u>Selenourea</u>	<u>Selenium</u>	<u>7782-49-2</u>	<u>0.82</u>	<u>5.7 mg/l TCLP</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
P104	<u>Silver cyanide</u>	<u>Cyanides (Total)⁷</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
		<u>Cyanides (Amenable)⁷</u>	<u>57-12-5</u>	<u>0.86</u>	<u>30</u>
		<u>Silver</u>	<u>7440-22-4</u>	<u>0.43</u>	<u>0.14 mg/l TCLP</u>
P105	<u>Sodium azide</u>	<u>Sodium azide</u>	<u>26628-22-8</u>	<u>CHOXD; CHRED; CARBN; BIODG; or CMBST</u>	<u>CHOXD; CHRED; or CMBST</u>
P106	<u>Sodium cyanide</u>	<u>Cyanides (Total)⁷</u>	<u>57-12-5</u>	<u>1.2</u>	<u>590</u>
		<u>Cyanides (Amenable)⁷</u>	<u>57-12-5</u>	<u>0.86</u>	<u>30</u>
P108	<u>Strychnine and salts</u>	<u>Strychnine and salts</u>	<u>57-24-9</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
P109	<u>Tetraethyldithiopyrophosphate</u>	<u>Tetraethyl- dithiopyrophosphate</u>	<u>3689-24-5</u>	<u>CARBN; or CMBST</u>	<u>CMBST</u>
P110	<u>Tetraethyl lead</u>	<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>0.75 mg/l TCLP</u>
P111	<u>Tetraethylpyrophosphate</u>	<u>Tetraethylpyrophosphate</u>	<u>107-49-3</u>	<u>CARBN; or CMBST</u>	<u>CMBST</u>
P112	<u>Tetranitromethane</u>	<u>Tetranitromethane</u>	<u>509-14-8</u>	<u>CHOXD; CHRED; CARBN; BIODG; or CMBST</u>	<u>CHOXD; CHRED; or CMBST</u>
P113	<u>Thallic oxide</u>	<u>Thallium (measured in wastewaters only)</u>	<u>7440-28-0</u>	<u>1.4</u>	<u>RTHRM; or STABL</u>
P114	<u>Thallium selenite</u>	<u>Selenium</u>	<u>7782-49-2</u>	<u>0.82</u>	<u>5.7 mg/l TCLP</u>
P115	<u>Thallium (I) sulfate</u>	<u>Thallium (measured in wastewaters only)</u>	<u>7440-28-0</u>	<u>1.4</u>	<u>RTHRM; or STABL</u>
P116	<u>Thiosemicarbazide</u>	<u>Thiosemicarbazide</u>	<u>79-19-6</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
P118	<u>Trichloromethanethiol</u>	<u>Trichloromethanethiol</u>	<u>75-70-7</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
P119	<u>Ammonium vanadate</u>	<u>Vanadium (measured in wastewaters only)</u>	<u>7440-62-2</u>	<u>4.3</u>	<u>STABL</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³, or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
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
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-Cumeyl methylcarbamate	64-00-6	0.056	1.4

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
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
U012	Aniline	Aniline	62-53-3	0.81	14
U014	Auramine	Auramine	492-80-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³; or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
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
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

TREATMENT STANDARDS FOR HAZARDOUS WASTES

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<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
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
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

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³, or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
581	U052	<u>Pentachlorophenol</u>	<u>87-86-5</u>	<u>0.089</u>	<u>7.4</u>
		<u>Phenanthrene</u>	<u>85-01-8</u>	<u>0.059</u>	<u>5.6</u>
		<u>Pvrene</u>	<u>129-00-0</u>	<u>0.067</u>	<u>8.2</u>
		<u>Toluene</u>	<u>108-88-3</u>	<u>0.080</u>	<u>10</u>
		<u>Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)</u>	<u>1330-20-7</u>	<u>0.32</u>	<u>30</u>
		<u>Lead</u>	<u>7439-92-1</u>	<u>0.69</u>	<u>0.75 mg/l TCLP</u>
		<u>o-Cresol</u>	<u>95-48-7</u>	<u>0.11</u>	<u>5.6</u>
		<u>m-Cresol (difficult to distinguish from p-cresol)</u>	<u>108-39-4</u>	<u>0.77</u>	<u>5.6</u>
		<u>p-Cresol (difficult to distinguish from m-cresol)</u>	<u>106-44-5</u>	<u>0.77</u>	<u>5.6</u>
		<u>Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)</u>	<u>1319-77-3</u>	<u>0.88</u>	<u>11.2</u>
	<u>U053</u>	<u>Crotonaldehyde</u>	<u>4170-30-3</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
	<u>U055</u>	<u>Cumene</u>	<u>98-82-8</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
	<u>U056</u>	<u>Cyclohexane</u>	<u>110-82-7</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
	<u>U057</u>	<u>Cyclohexanone</u>	<u>108-94-1</u>	<u>0.36</u>	<u>CMBST</u>
		<u>Cyclohexanone; alternate⁶ standard for nonwastewaters only</u>	<u>108-94-1</u>	<u>NA</u>	<u>0.75 mg/l TCLP</u>
<u>U058</u>	<u>Cyclophosphamide</u>	<u>Cyclophosphamide</u>	<u>50-18-0</u>	<u>CARBN; or CMBST</u>	<u>CMBST</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP", or Technology Code</u>
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
U071	m-Dichlorobenzene	m-Dichlorobenzene	541-73-1	0.036	6.0
U072	p-Dichlorobenzene	p-Dichlorobenzene	106-46-7	0.090	6.0

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³, or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
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
U088	Diethyl phthalate	Diethyl phthalate	84-66-2	0.20	28

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
U089	Diethyl stilbestrol	Diethyl stilbestrol	56-53-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U090	Dihydrosafrole	Dihydrosafrole	94-58-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U091	3,3'-Dimethoxybenzidine	3,3'-Dimethoxybenzidine	119-90-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U092	Dimethylamine	Dimethylamine	124-40-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U093	p-Dimethylaminoazobenzene	p-Dimethylaminoazobenzene	60-11-7	0.13	CMBST
U094	7,12-Dimethylbenz(a)anthracene	7,12-Dimethylbenz(a)anthracene	57-97-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U095	3,3'-Dimethylbenzidine	3,3'-Dimethylbenzidine	119-93-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U096	alpha, alpha-Dimethyl benzyl hydroperoxide	alpha, alpha-Dimethyl benzyl hydroperoxide	80-15-9	CHOXD; CHRED; CARBN; BIODG; OR CMBST	CHOXD; CHRED; or CMBST
U097	Dimethylcarbamoyl chloride	Dimethylcarbamoyl chloride	79-44-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U098	1,1-Dimethylhydrazine	1,1-Dimethylhydrazine	57-14-7	CHOXD; CHRED; CARBN; BIODG; OR CMBST	CHOXD; CHRED; or CMBST
U099	1,2-Dimethylhydrazine	1,2-Dimethylhydrazine	540-73-8	CHOXD; CHRED; CARBN; BIODG; OR CMBST	CHOXD; CHRED; or CMBST
U101	2,4-Dimethylphenol	2,4-Dimethylphenol	105-67-9	0.036	14
U102	Dimethyl phthalate	Dimethyl phthalate	131-11-3	0.047	28
U103	Dimethyl sulfate	Dimethyl sulfate	77-78-1	CHOXD; CHRED; CARBN; BIODG; OR CMBST	CHOXD; CHRED; or CMBST
U105	2,4-Dinitrotoluene	2,4-Dinitrotoluene	121-14-2	0.32	140
U106	2,6-Dinitrotoluene	2,6-Dinitrotoluene	606-20-2	0.55	28

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
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
U119	Ethyl methane sulfonate	Ethyl methane sulfonate	62-50-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

TREATMENT STANDARDS FOR HAZARDOUS WASTES

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<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
<u>U120</u>	<u>Fluoranthene</u>	<u>Fluoranthene</u>	<u>206-44-0</u>	<u>0.068</u>	<u>3.4</u>
<u>U121</u>	<u>Trichloromonofluoromethane</u>	<u>Trichloromonofluoromethane</u>	<u>75-69-4</u>	<u>0.020</u>	<u>30</u>
<u>U122</u>	<u>Formaldehyde</u>	<u>Formaldehyde</u>	<u>50-00-0</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
<u>U123</u>	<u>Formic acid</u>	<u>Formic acid</u>	<u>64-18-6</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
<u>U124</u>	<u>Furan</u>	<u>Furan</u>	<u>110-00-9</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
<u>U125</u>	<u>Furfural</u>	<u>Furfural</u>	<u>98-01-1</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
<u>U126</u>	<u>Glycidylaldehyde</u>	<u>Glycidylaldehyde</u>	<u>765-34-4</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
<u>U127</u>	<u>Hexachlorobenzene</u>	<u>Hexachlorobenzene</u>	<u>118-74-1</u>	<u>0.055</u>	<u>10</u>
<u>U128</u>	<u>Hexachlorobutadiene</u>	<u>Hexachlorobutadiene</u>	<u>87-68-3</u>	<u>0.055</u>	<u>5.6</u>
<u>U129</u>	<u>Lindane</u>	<u>alpha-BHC</u>	<u>319-84-6</u>	<u>0.00014</u>	<u>0.066</u>
		<u>beta-BHC</u>	<u>319-85-7</u>	<u>0.00014</u>	<u>0.066</u>
		<u>delta-BHC</u>	<u>319-86-8</u>	<u>0.023</u>	<u>0.066</u>
		<u>gamma-BHC (Lindane)</u>	<u>58-89-9</u>	<u>0.0017</u>	<u>0.066</u>
<u>U130</u>	<u>Hexachlorocyclopentadiene</u>	<u>Hexachlorocyclopentadiene</u>	<u>77-47-4</u>	<u>0.057</u>	<u>2.4</u>
<u>U131</u>	<u>Hexachloroethane</u>	<u>Hexachloroethane</u>	<u>67-72-1</u>	<u>0.055</u>	<u>30</u>
<u>U132</u>	<u>Hexachlorophene</u>	<u>Hexachlorophene</u>	<u>70-30-4</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
<u>U133</u>	<u>Hydrazine</u>	<u>Hydrazine</u>	<u>302-01-2</u>	<u>CHOXD; CHRED; CARBN; BIODG; or CMBST</u>	<u>CHOXD; CHRED; or CMBST</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³; or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
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
U151	U151 (mercury) nonwastewaters that contain greater than or equal to 260 mg/kg total mercury.	Mercury	7439-97-6	NA	RMERC

TREATMENT STANDARDS FOR HAZARDOUS WASTES

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
588	<u>U151 (mercury) nonwastewaters that contain less than 260 mg/kg total mercury and that are residues from RMERC only.</u>	<u>Mercury</u>	<u>7439-97-6</u>	<u>NA</u>	<u>0.20 mg/l TCLP</u>
	<u>U151 (mercury) nonwastewaters that contain less than 260 mg/kg total mercury and that are not residues from RMERC.</u>	<u>Mercury</u>	<u>7439-97-6</u>	<u>NA</u>	<u>0.025 mg/l TCLP</u>
	<u>All U151 (mercury) wastewaters.</u>	<u>Mercury</u>	<u>7439-97-6</u>	<u>0.15</u>	<u>NA</u>
	<u>Elemental mercury contaminated with radioactive materials.</u>	<u>Mercury</u>	<u>7439-97-6</u>	<u>NA</u>	<u>AMLGM</u>
	<u>U152 Methacrylonitrile</u>	<u>Methacrylonitrile</u>	<u>126-98-7</u>	<u>0.24</u>	<u>84</u>
	<u>U153 Methanethiol</u>	<u>Methanethiol</u>	<u>74-93-1</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
	<u>U154 Methanol</u>	<u>Methanol</u>	<u>67-56-1</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
		<u>Methanol, alternate⁶ set of standards for both wastewaters and nonwastewaters</u>	<u>67-56-1</u>	<u>5.6</u>	<u>0.75 mg/l TCLP</u>
	<u>U155 Methapyrilene</u>	<u>Methapyrilene</u>	<u>91-80-5</u>	<u>0.081</u>	<u>1.5</u>
	<u>U156 Methyl chlorocarbonate</u>	<u>Methyl chlorocarbonate</u>	<u>79-22-1</u>	<u>(WETOX or CHOXD) fb CARBN; or CMBST</u>	<u>CMBST</u>
	<u>U157 3-Methylcholanthrene</u>	<u>3-Methylcholanthrene</u>	<u>56-49-5</u>	<u>0.0055</u>	<u>15</u>
	<u>U158 4,4'-Methylene bis(2-chloroaniline)</u>	<u>4,4'-Methylene bis(2-chloroaniline)</u>	<u>101-14-4</u>	<u>0.50</u>	<u>30</u>
	<u>U159 Methyl ethyl ketone</u>	<u>Methyl ethyl ketone</u>	<u>78-93-3</u>	<u>0.28</u>	<u>36</u>
	<u>U160 Methyl ethyl ketone peroxide</u>	<u>Methyl ethyl ketone peroxide</u>	<u>1338-23-4</u>	<u>CHOXD; CHRED; CARBN; BIODG; or CMBST</u>	<u>CHOXD; CHRED; or CMBST</u>
	<u>U161 Methyl isobutyl ketone</u>	<u>Methyl isobutyl ketone</u>	<u>108-10-1</u>	<u>0.14</u>	<u>33</u>

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
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
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

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³, or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
590	<u>U180</u>	<u>N-Nitrosopyrrolidine</u>	<u>93-55-2</u>	<u>0.013</u>	<u>35</u>
	<u>U181</u>	<u>5-Nitro-o-toluidine</u>	<u>99-55-8</u>	<u>0.32</u>	<u>28</u>
	<u>U182</u>	<u>Paraldehyde</u>	<u>123-63-7</u>	<u>(WETOX or CHOXD) fb</u> <u>CARBN; or CMBST</u>	<u>CMBST</u>
	<u>U183</u>	<u>Pentachlorobenzene</u>	<u>608-93-5</u>	<u>0.055</u>	<u>10</u>
	<u>U184</u>	<u>Pentachloroethane</u>	<u>76-01-7</u>	<u>(WETOX or CHOXD) fb</u> <u>CARBN; or CMBST</u>	<u>CMBST</u>
		<u>Pentachloroethane; alternate⁶ standards for both wastewaters and nonwastewaters</u>	<u>76-01-7</u>	<u>0.055</u>	<u>6.0</u>
	<u>U185</u>	<u>Pentachloronitrobenzene</u>	<u>82-68-8</u>	<u>0.055</u>	<u>4.8</u>
	<u>U186</u>	<u>1,3-Pentadiene</u>	<u>504-60-9</u>	<u>(WETOX or CHOXD) fb</u> <u>CARBN; or CMBST</u>	<u>CMBST</u>
	<u>U187</u>	<u>Phenacetin</u>	<u>62-44-2</u>	<u>0.081</u>	<u>16</u>
	<u>U188</u>	<u>Phenol</u>	<u>108-95-2</u>	<u>0.039</u>	<u>6.2</u>
	<u>U189</u>	<u>Phosphorus sulfide</u>	<u>1314-80-3</u>	<u>CHOXD; CHRED; or CMBST</u>	<u>CHOXD; CHRED; or CMBST</u>
	<u>U190</u>	<u>Phthalic anhydride (measured as phthalic acid or terephthalic acid)</u>	<u>100-21-0</u>	<u>0.055</u>	<u>28</u>
		<u>Phthalic anhydride</u>	<u>85-44-9</u>	<u>0.055</u>	<u>28</u>
	<u>U191</u>	<u>2-Picoline</u>	<u>109-06-8</u>	<u>(WETOX or CHOXD) fb</u> <u>CARBN; or CMBST</u>	<u>CMBST</u>
	<u>U192</u>	<u>Pronamide</u>	<u>23950-58-5</u>	<u>0.093</u>	<u>1.5</u>
	<u>U193</u>	<u>1,3-Propane sultone</u>	<u>1120-71-4</u>	<u>(WETOX or CHOXD) fb</u> <u>CARBN; or CMBST</u>	<u>CMBST</u>

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³, or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
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
U214	Thallium (I) acetate	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL

TREATMENT STANDARDS FOR HAZARDOUS WASTES

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³ or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/l TCLP"; or Technology Code</u>
U215	Thallium (I) carbonate	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U216	Thallium (I) chloride	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U217	Thallium (I) nitrate	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U218	Thioacetamide	Thioacetamide	62-55-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U219	Thiourea	Thiourea	62-56-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U220	Toluene	Toluene	108-88-3	0.080	10
U221	Toluenediamine	Toluenediamine	25376-45-8	CARBN; or CMBST	CMBST
U222	o-Toluidine hydrochloride	o-Toluidine hydrochloride	636-21-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U223	Toluene diisocyanate	Toluene diisocyanate	26471-62-5	CARBN; or CMBST	CMBST
U225	Bromoform (Tribromomethane)	Bromoform (Tribromomethane)	75-25-2	0.63	15
U226	1,1,1-Trichloroethane	1,1,1-Trichloroethane	71-55-6	0.054	6.0
U227	1,1,2-Trichloroethane	1,1,2-Trichloroethane	79-00-5	0.054	6.0
U228	Trichloroethylene	Trichloroethylene	79-01-6	0.054	6.0
U234	1,3,5-Trinitrobenzene	1,3,5-Trinitrobenzene	99-35-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U235	tris-(2,3-Dibromopropyl)-phosphate	tris-(2,3-Dibromopropyl)- phosphate	126-72-7	0.11	0.10
U236	Trypan Blue	Trypan Blue	72-57-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

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	
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	
593	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

<u>Waste Code</u>	<u>Waste Description and Treatment/Regulatory Subcategory¹</u>	<u>Regulated Hazardous Constituent</u>		<u>Wastewaters</u>	<u>Nonwastewaters</u>
		<u>Common Name</u>	<u>CAS²No.</u>	<u>Concentration mg/l³; or Technology Code⁴</u>	<u>Concentration in mg/kg⁵ unless noted as "mg/ TCLP"; or Technology Code</u>
<u>U328</u>	<u>o-Toluidine</u>	<u>o-Toluidine</u>	<u>95-53-4</u>	<u>CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN</u>	<u>CMBST</u>
<u>U353</u>	<u>p-Toluidine</u>	<u>p-Toluidine</u>	<u>106-49-0</u>	<u>CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN</u>	<u>CMBST</u>
<u>U359</u>	<u>2-Ethoxyethanol</u>	<u>2-Ethoxyethanol</u>	<u>110-80-5</u>	<u>CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN</u>	<u>CMBST</u>
<u>U364</u>	<u>Bendiocarb phenol¹⁰</u>	<u>Bendiocarb phenol</u>	<u>22961-82-6</u>	<u>0.056</u>	<u>1.4</u>
<u>U367</u>	<u>Carbofuran phenol</u>	<u>Carbofuran phenol</u>	<u>1563-38-8</u>	<u>0.056</u>	<u>1.4</u>
<u>U372</u>	<u>Carbendazim</u>	<u>Carbendazim</u>	<u>10605-21-7</u>	<u>0.056</u>	<u>1.4</u>
<u>U373</u>	<u>Propham</u>	<u>Propham</u>	<u>122-42-9</u>	<u>0.056</u>	<u>1.4</u>
<u>U387</u>	<u>Prosulfocarb</u>	<u>Prosulfocarb</u>	<u>52888-80-9</u>	<u>0.042</u>	<u>1.4</u>
<u>U389</u>	<u>Triallate</u>	<u>Triallate</u>	<u>2303-17-5</u>	<u>0.042</u>	<u>1.4</u>
<u>U394</u>	<u>A2213¹⁰</u>	<u>A2213</u>	<u>30558-43-1</u>	<u>0.042</u>	<u>1.4</u>
<u>U395</u>	<u>Diethylene glycol dicarbamate¹⁰</u>	<u>Diethylene glycol dicarbamate</u>	<u>5952-26-1</u>	<u>0.056</u>	<u>1.4</u>
<u>U404</u>	<u>Triethylamine</u>	<u>Triethylamine</u>	<u>101-44-8</u>	<u>0.081</u>	<u>1.5</u>
<u>U409</u>	<u>Thiophanate-methyl</u>	<u>Thiophanate-methyl</u>	<u>23564-05-8</u>	<u>0.056</u>	<u>1.4</u>
<u>U410</u>	<u>Thiodicarb</u>	<u>Thiodicarb</u>	<u>59669-26-0</u>	<u>0.019</u>	<u>1.4</u>
<u>U411</u>	<u>Propoxur</u>	<u>Propoxur</u>	<u>114-26-1</u>	<u>0.056</u>	<u>1.4</u>

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 BODG, 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.

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

33-24-05-282. Treatment standards expressed as specified technologies.

1. The following wastes in subdivisions ~~a and b of subsection 1~~ and in the table in section 33-24-05-280 "Treatment Standards for Hazardous Wastes", for which standards are expressed as a treatment method rather than a concentration level, must be treated using the technology or technologies specified in ~~subdivisions a and b of subsection 1~~ and the table 1 entitled "Technology Codes and Description of Technology-Based Standards" in this section.
 - ~~a. Liquid hazardous wastes containing polychlorinated biphenyls (PCBs) at concentrations greater than or equal to fifty parts per million but less than five hundred parts per million must be incinerated in accordance with the technical requirements of 40 CFR 761.70 or burned in high efficiency boilers in accordance with the technical requirements of 40 CFR 761.60. Liquid hazardous wastes containing polychlorinated biphenyls at concentrations greater than or equal to five hundred parts per million must be incinerated in accordance with the technical requirements of 40 CFR 761.70. Thermal treatment under this section must also be in compliance with applicable regulations in chapter 33-24-05.~~
 - ~~b. Nonliquid hazardous wastes containing halogenated organic compounds (HOCs) in total concentration greater than or equal to one thousand milligrams per kilogram and liquid halogenated organic compounds containing wastes that are prohibited under subdivision a of subsection 5 of section 33-24-05-272 must be incinerated in accordance with the requirements of sections 33-24-05-144 through 33-24-05-159. These treatment standards do not apply where the waste is subject to sections 33-24-05-280 through 33-24-05-289, treatment standard for specific halogenated organic compounds (such as a hazardous waste chlorinated solvent for which a treatment standard is established under subsection 1 of section 33-24-05-281).~~
 - ~~c. A mixture consisting of wastewater, the discharge of which is subject to regulation under either section 402 or section 307(b) of the Clean Water Act, and de minimis losses of materials from manufacturing operations in which these materials are used as raw materials or are produced as products in the manufacturing process, and that meet the criteria of the D001 ignitable liquids containing greater than ten percent total organic constituents (TOC) subcategory, is subject to the DEACT treatment standard~~

described in table 1. For purposes of this subdivision, de minimis losses include those 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 from process equipment, storage tanks, or containers; leaks from well-maintained pump packings and seals; sample purgings; and relief device discharges.

Table 1. Technology Codes and Description of Technology-Based Standards

Technology Code	Description of Technology-Based Standards
ADGAS:	Venting of compressed gases into an absorbing or reacting media (for example, solid or liquid)-venting can be accomplished through physical release utilizing valves/piping; physical penetration of the container; and/or penetration through detonation.
AMLGM:	Amalgamation of liquid, elemental mercury contaminated with radioactive materials utilizing inorganic reagents such as copper, zinc, nickel, gold, and sulfur that result in a nonliquid, semi-solid amalgam and thereby reducing potential emissions of elemental mercury vapors to the air.
BIODG:	Biodegradation of organics or non-metallic inorganics (for example, degradable inorganics that contain the elements of phosphorus, nitrogen, and sulfur) in units operated under either aerobic or anaerobic conditions such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (for example, Total Organic Carbon can often be used as an indicator parameter for the biodegradation of many organic constituents that cannot be directly analyzed in wastewater residues).
CARBN:	Carbon adsorption (granulated or powdered) of non-metallic inorganics, organo-metallics, and/or organic constituents, operated such that a surrogate compound or indicator parameter has not undergone breakthrough (for example, Total Organic Carbon can often be used as an indicator parameter for the adsorption of many organic constituents that cannot be directly analyzed in wastewater residues). Breakthrough occurs when the carbon has become saturated with the constituent (or indicator parameter) and substantial change in adsorption rate associated with that constituent occurs.

**Table 1. Technology Codes and Description of
Technology-Based Standards**

Technology Code	Description of Technology-Based Standards
CHOXD:	Chemical or electrolytic oxidation utilizing the following oxidation reagents (or waste reagents) or combinations of reagents: (1) Hypochlorite (e.g. bleach); (2) chlorine; (3) chlorine dioxide; (4) ozone or UV (ultraviolet light) assisted ozone; (5) peroxides; (6) persulfates; (7) perchlorates; (8) permangantes; and/or (9) other oxidizing reagents of equivalent efficiency, performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (for example, Total Organic Carbon can often be used as an indicator parameter for the oxidation of many organic constituents that cannot be directly analyzed in wastewater residues). Chemical oxidation specifically includes what is commonly referred to as alkaline chlorination.
CHRED:	Chemical reduction utilizing the following reducing reagents (or waste reagents) or combinations of reagents: (1) Sulfur dioxide; (2) sodium, potassium, or alkali salts or sulfites, bisulfites, metabisulfites, and polyethylene glycols (for example, NaPEG and KPEG); (3) sodium hydrosulfide; (4) ferrous salts; and/or (5) other reducing reagents of equivalent efficiency, performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (for example, Total Organic Halogens can often be used as an indicator parameter for the reduction of many halogenated organic constituents that cannot be directly analyzed in wastewater residues). Chemical reduction is commonly used for the reduction of hexavalent chromium to the trivalent state.
7CMBST <u>CMBST</u> :	High temperature organic destruction technologies, such as combustion in incinerators, boilers, or industrial furnaces operated in accordance with the applicable requirements of sections 33-24-05-144 through 33-24-05-159, sections 33-24-05-525 through 33-24-05-549, or subsection 5 of section 33-24-06-16, and in other units operated in accordance with applicable technical operating requirements; and certain noncombustive technologies, such as the catalytic extraction process.
DEACT:	Deactivation to remove the hazardous characteristics of a waste due to its ignitability, corrosivity, and/or reactivity.
FSUBS:	Fuel substitution in units operated in accordance with applicable technical operating requirements.

Table 1. Technology Codes and Description of Technology-Based Standards

Technology Code	Description of Technology-Based Standards
HLVIT:	Vitrification of high level mixed radioactive wastes in units in compliance with all applicable radioactive protection requirements under control of the Nuclear Regulatory Commission.
IMERC:	Incineration of wastes containing organics and mercury in units operated in accordance with the technical operating requirements of sections 33-24-05-144 through 33-24-05-159. All wastewater and nonwastewater residues derived from this process must then comply with the corresponding treatment standards per waste code with consideration of any applicable subcategories (for example, High or Low Mercury Subcategories).
INCIN:	Incineration in units operated in accordance with the technical operating requirements of sections 33-24-05-144 through 33-24-05-159.
LLEXT:	Liquid-liquid extraction (often referred to as solvent extraction) of organics from liquid wastes into an immiscible solvent for which the hazardous constituents have a greater solvent affinity, resulting in an extract high in organics that must undergo either incineration, reuse as a fuel, or other recovery/reuse and a raffinate (extracted liquid waste) proportionately low in organics that must undergo further treatment as specified in the standard.
MACRO:	Macroencapsulation with surface coating materials such as polymeric organics (e.g. resins and plastics) or with a jacket of inert inorganic materials to substantially reduce surface exposure to potential leaching media. Macroencapsulation specifically does not include any material that would be classified as a tank or container according to section 33-24-01-04.
NEUTR:	Neutralization with the following reagents (or waste reagents) or combinations of reagents: (1) Acids; (2) bases; or (3) water (including wastewaters) resulting in a pH greater than 2 but less than 12.5 as measured in the aqueous residuals.
NLDBR:	No land disposal based on recycling.
<u>POLYM:</u>	<u>Formation of complex high-molecular weight solids through polymerization of monomers in high-total organic carbon D001 nonwastewaters which are chemical components in the manufacture of plastics.</u>

Table 1. Technology Codes and Description of Technology-Based Standards

Technology Code	Description of Technology-Based Standards
PRECP:	Chemical precipitation of metals and other inorganics as insoluble precipitates of oxides, hydroxides, carbonates, sulfides, sulfates, chlorides, fluorides, or phosphates. The following reagents (or waste reagents) are typically used alone or in combination: (1) Lime (for example, containing oxides and/or hydroxides of calcium and/or magnesium; (2) caustic (for example, sodium and/or potassium hydroxides; (3) soda ash (for example, sodium carbonate); (4) sodium sulfide; (5) ferric sulfate or ferric chloride; (6) alum; or (7) sodium sulfate. Additional flocculating, coagulation or similar reagents/processes that enhance sludge dewatering characteristics are not precluded from use.
RBERY:	Thermal recovery of Beryllium.
RCGAS:	Recovery/reuse of compressed gases including techniques such as reprocessing of the gases for reuse/resale; filtering/adsorption of impurities; remixing for direct reuse or resale; and use of the gas as a fuel source.
RCORR:	Recovery of acids or bases utilizing one or more of the following recovery technologies: (1) Distillation (for example, thermal concentration); (2) ion exchange; (3) resin or solid adsorption; (4) reverse osmosis; and/or (5) incineration for the recovery of acid - Note: This does not preclude the use of other physical phase separation or concentration techniques such as decantation, filtration (including ultrafiltration), and centrifugation, when used in conjunction with the above listed recovery technologies.
RLEAD:	Thermal recovery of lead in secondary lead smelters.
RMERC:	Retorting or roasting in a thermal processing unit capable of volatilizing mercury and subsequently condensing the volatilized mercury for recovery. The retorting or roasting unit (or facility) must be subject to one or more of the following: (a) a National Emissions Standard for Hazardous Air Pollutants (NESHAP) for mercury; (b) a Best Available Control Technology (BACT) or a Lowest Achievable Emission Rate (LAER) standard for mercury imposed pursuant to a Prevention of Significant Deterioration (PSD) permit; or (c) a state permit that establishes emission limitations (within meaning of section 302 of the Clean Air Act) for mercury. All wastewater and nonwastewater residues derived from this process must then comply with the corresponding treatment standards per waste code with consideration of any applicable subcategories (for example, High or Low Mercury Subcategories).

Table 1. Technology Codes and Description of Technology-Based Standards

Technology Code	Description of Technology-Based Standards
RMETL:	Recovery of metals or inorganics utilizing one or more of the following direct physical/removal technologies: (1) Ion exchange; (2) resin or solid (for example, zeolites) adsorption; (3) reverse osmosis; (4) chelation/solvent extraction; (5) freeze crystallization; (6) ultrafiltration and/or (7) simple precipitation (for example, crystallization) - Note: This does not preclude the use of other physical phase separation or concentration techniques such as decantation, filtration (including ultrafiltration), and centrifugation, when used in conjunction with the above listed recovery technologies.
RORGS:	Recovery of organics utilizing one or more of the following technologies: (1) Distillation; (2) thin film evaporation; (3) steam stripping; (4) carbon adsorption; (5) critical fluid extraction; (6) liquid-liquid extraction; (7) precipitation/crystallization (including freeze crystallization); or (8) chemical phase separation techniques (for example, addition of acids, bases, demulsifiers, or similar chemicals) - Note: This does not preclude the use of other physical phase separation techniques such as a decantation, filtration (including ultrafiltration), and centrifugation, when used in conjunction with the above listed recovery technologies.
RTHRM:	Thermal recovery of metals or inorganics from nonwastewaters in units identified as industrial furnaces according to subdivisions a, f, g, k, and l of subsection 45 of section 33-24-01-04 under the definition of "industrial furnaces".
RZINC:	Resmelting in high temperature metal recovery units for the purpose of recovery of zinc.
STABL:	Stabilization with the following reagents (or waste reagents) or combinations of reagents: (1) Portland cement; or (2) lime/pozzolans (for example, fly ash and cement kiln dust) - this does not preclude the addition of reagents (for example, iron salts, silicates, and clays) designed to enhance the set/cure time and/or compressive strength, or to overall reduce the leachability of the metal or inorganic.

**Table 1. Technology Codes and Description of
Technology-Based Standards**

Technology Code	Description of Technology-Based Standards
SSTRP:	Steam stripping of organics from liquid wastes utilizing direct application of steam to the wastes operated such that liquid and vapor flow rates, as well as, temperature and pressure ranges have been optimized, monitored, and maintained. These operating parameters are dependent upon the design parameters of the unit such as, the number of separation stages and the internal column design. Thus, resulting in a condensed extract high in organics that must undergo either incineration, reuse as a fuel, or other recovery/reuse and an extracted wastewater that must undergo further treatment as specified in the standard.
WETOX:	Wet air oxidation performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (for example, Total Organic Carbon can often be used as an indicator parameter for the oxidation of many organic constituents that cannot be directly analyzed in wastewater residues).
WTRRX:	Controlled reaction with water for highly reactive inorganic or organic chemicals with precautionary controls for protection of workers from potential violent reactions as well as precautionary controls for potential emissions of toxic/ignitable levels of gases released during the reaction.

Note 1: When a combination of these technologies (for example, a treatment train) is specified as a single treatment standard, the order of application is specified in section 33-24-05-282, table 2 by indicating the five letter technology code that must be applied first, then the designation "fb" (an abbreviation for "followed by"), then the five letter technology code for the technology that must be applied next, and so on.

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

2. Any person may submit an application to the administrator demonstrating that an alternative treatment method can achieve a measure of performance equivalent to that achieved by methods specified in subsections 1, 3, and 4 for wastes or specified in table 1 of section 33-24-05-285 for hazardous debris. The applicant must submit information demonstrating that his the applicant's treatment

method is in compliance with federal, state, and local requirements and is protective of human health and the environment. On the basis of such information and any other available information, the administrator may approve the use of the alternative treatment method if ~~he~~ the administrator finds that the alternative treatment method provides a measure of performance equivalent to that achieved by methods specified in subsections 1, 3, and 4 for wastes or in table 1 of section 33-24-05-285 for hazardous debris. Any approval must be stated in writing and may contain such provisions and conditions as the administrator deems appropriate. The person to whom such approval is issued must comply with all limitations contained in such a determination.

3. As an alternative to the otherwise applicable sections 33-24-05-280 through 33-24-05-289 treatment standards, lab packs are eligible for land disposal provided the following requirements are met:
 - a. The lab packs comply with the applicable provisions of section 33-24-05-185;
 - b. The lab pack does not contain any of the wastes listed in appendix VIII of chapter 33-24-05;
 - c. The lab packs are incinerated in accordance with the requirements of sections 33-24-05-144 through 33-24-05-159; and
 - d. Any incinerator residues from lab packs containing D004, D005, D006, D007, D008, D010, and D011 are treated in compliance with the applicable treatment standards specified for such wastes in sections 33-24-05-280 through 33-24-05-289.
4. Radioactive hazardous mixed wastes are subject to the treatment standards in section 33-24-05-280. Where treatment standards are specified for radioactive mixed wastes in the Table of Treatment Standards, those treatment standards will govern. Where there is no specific treatment standard for radioactive mixed waste, the treatment standard for the hazardous waste (as designated by environmental protection agency/state waste code) applies. Hazardous debris containing radioactive waste is subject to the treatment standards specified in section 33-24-05-285.

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

33-24-05-284. Variance from a treatment standard.

1. ~~Where the treatment standard is expressed as a concentration in a waste or waste extract and a waste cannot be treated to the specified level, or where the treatment technology is not appropriate to the waste, the generator or treatment facility may petition the administrator for a variance from the treatment standard. The petitioner shall demonstrate that because the physical or chemical properties of the waste differs significantly from wastes analyzed in developing the treatment standard, the waste cannot be treated to specified levels or by the specified methods. The petitioner may also demonstrate that it is treating underlying hazardous constituents in characteristically hazardous wastewaters by sending the waste to a properly designed and operated best available technology/pretreatment standards for existing sources system, which may not be achieving the treatment standards found in section 33-24-05-288. Based on a petition filed by a generator or treater of hazardous waste, the administrator may approve a variance from an applicable treatment standard if:~~
 - a. It is not physically possible to treat the waste to the level specified in the treatment standard, or by the method specified as the treatment standard. To show that this is the case, the petitioner must demonstrate that because the physical or chemical properties of the waste differ significantly from waste analyzed in developing the treatment standard, the waste cannot be treated to the specified level or by the specified method; or
 - b. It is inappropriate to require the waste to be treated to the level specified in the treatment standard or by the method specified as the treatment standard, even though such treatment is technically possible. To show that this is the case, the petitioner must either demonstrate that:
 - (1) Treatment to the specified level or by the specified method is technically inappropriate (for example, resulting in combustion of large amounts of mildly contaminated environmental media); or
 - (2) For remediation waste only, treatment to the specified level, or by the specified method is environmentally inappropriate because it would likely discourage aggressive remediation.
2. Each petition must be submitted in accordance with the procedures in section 33-24-01-06.
3. These petitions must include the following statement signed by the petitioner or an authorized representative: (I certify under penalty of law that I have personally examined and am familiar with the information submitted in this petition and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information

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

4. After receiving a petition for variance from a treatment standard, the administrator may request any additional information or samples which the administrator may require to evaluate the petition. Additional copies of the complete petition may be requested as needed to send to affected states and to the environmental protection agency regional offices.
5. The administrator will give public notice in the federal register of the intent to approve or deny a petition and provide an opportunity for public comment. The final decision on a variance from a treatment standard will be published in the federal register.
6. A generator, treatment facility, or disposal facility that is managing a waste covered by a variance from the treatment standards shall comply with the waste analysis requirements for restricted wastes found under section 33-24-05-256.
7. During the petition review process, an 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.
8. ~~Where the treatment standard is expressed as a concentration in a waste or waste extract and a waste generated under conditions specific to only one site cannot be treated to the specified level, or where the treatment technology is not appropriate to the waste, the generator or treatment facility may apply to the administrator for a site-specific variance from a treatment standard. The applicant for a site-specific variance must demonstrate that because the physical or chemical properties of the waste differs significantly from the waste analyzed in developing the treatment standard, the waste cannot be treated to specified levels or by the specified methods.~~ Based on a petition filed by a generator or treater of hazardous waste, the department may approve a site-specific variance from an applicable treatment standard if:
 - a. It is not physically possible to treat the waste to the level specified in the treatment standard, or by the method specified as the treatment standard. To show that this is the case, the petitioner must demonstrate that because the physical or chemical properties of the waste differ significantly from waste analyzed in developing the treatment standard, the waste cannot be treated to the specified level or by the specified method; or
 - b. It is inappropriate to require the waste to be treated to the level specified in the treatment standard or by the method specified as

the treatment standard, even though such treatment is technically possible. To show that this is the case, the petitioner must either demonstrate that:

- (1) Treatment to the specified level or by the specified method is technically inappropriate (for example, resulting in combustion of large amounts of mildly contaminated environmental media when the treatment standard is not based on combustion of such media); or
- (2) For remediation waste only, treatment to the specified level or by the specified method is environmentally inappropriate because it would likely discourage aggressive remediation.

c. For contaminated soil only, treatment to the level or by the method specified in the soil treatment standards would result in concentrations of hazardous constituents that are below (for example, lower than) the concentrations necessary to minimize short- and long-term threats to human health and the environment. Treatment variances approved under this subdivision must:

- (1) At a minimum, impose alternative land disposal restriction treatment standards that, using a reasonable maximum exposure scenario:
 - (a) For carcinogens, achieve constituent concentrations that result in the total excess risk to an individual exposed over a lifetime generally falling within a range from 10^{-4} to 10^{-6} ; and
 - (b) For constituents with noncarcinogenic effects, achieve constituent concentrations that an individual could be exposed to on a daily basis without appreciable risk of deleterious effect during a lifetime.

(2) Not consider post-land-disposal controls.

d. For contaminated soil only, treatment to the level or by the method specified in the soil treatment standards would result in concentrations of hazardous constituents that are below (for example, lower than) natural background concentrations at the site where the contaminated soil will be land disposed.

e. Public notice and reasonable opportunity for public comment must be provided before granting or denying a petition.

9. Each application for a site-specific variance from a treatment standard must include the information in ~~subdivision~~ subdivisions a through d of subsection 2 of section 33-24-01-06.

10. After receiving an application for a site-specific variance from a treatment standard, the assistant administrator, or a delegated representative, may request any additional information or samples which may be required to evaluate the application.
11. A generator, treatment facility, or disposal facility that is managing a waste governed by a site-specific variance from a treatment standard must comply with the waste analysis requirements for restricted wastes found under section 33-24-05-256.
12. During the application review process, the applicant for a site-specific variance must comply with all restrictions on land disposal under this chapter once the effective date for the waste has been reached.
13. For all variances, the petitioner must also demonstrate that compliance with any given treatment variance is sufficient to minimize threats to human health and the environment posed by land disposal of the waste. In evaluating this demonstration, the department may take into account whether a treatment variance should be approved if the subject waste is to be used in a manner constituting disposal pursuant to sections 33-24-05-201 through 33-24-05-209.

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

33-24-05-285. Treatment standards for hazardous debris.

1. **Treatment standards.** Hazardous debris must be treated prior to land disposal as follows unless the department determines under subdivision b of subsection 6 5 of section 33-24-02-03 that the debris is no longer contaminated with hazardous waste or the debris is treated to the waste-specific treatment standard provided in sections 33-24-05-280 through ~~33-24-05-286~~ 33-24-05-289 for the waste contaminating the debris.
 - a. General. Hazardous debris must be treated for each "contaminant subject to treatment" defined by subsection 2 using the technology or technologies identified in table 1 of this section.
 - b. Characteristic debris. Hazardous debris that exhibits the characteristic of ignitability, corrosivity, or reactivity identified under sections 33-24-02-11, 33-24-02-12, and 33-24-02-13, respectively, must be deactivated by treatment using one of the technologies identified in table 1 of this section.
 - c. Mixtures of debris types. The treatment standards of table 1 in this section must be achieved for each type of debris contained in a

mixture of debris types. If an immobilization technology is used in a treatment train, it must be the last treatment technology used.

- d. Mixtures of contaminant types. Debris that is contaminated with two or more contaminants subject to treatment identified under subsection 2 must be treated for each contaminant using one or more treatment technologies identified in table 1 of this section. If an immobilization technology is used in a treatment train, it must be the last treatment technology used.
 - e. Waste polychlorinated biphenyls. Hazardous debris that is also a waste polychlorinated biphenyl under 40 CFR part 761 is subject to the requirements of either 40 CFR part 761 or the requirements of this section, whichever are more stringent.
2. **Contaminants subject to treatment.** Hazardous debris must be treated for each "contaminant subject to treatment". The contaminants subject to treatment must be determined as follows:
- a. Toxicity characteristic debris. The contaminants subject to treatment for debris that exhibits the toxicity characteristic (TC) by section 33-24-02-14 are those extraction procedure constituents (hazardous waste numbers D004 through D017) for which the debris exhibits the toxicity characteristic.
 - b. Debris contaminated with listed waste. The contaminants subject to treatment for debris that is contaminated with a prohibited listed hazardous waste are those constituents or wastes for which treatment standards are established for waste under section 33-24-05-280.
 - c. Cyanide reactive debris. Hazardous debris that is reactive because of cyanide must be treated for cyanide.
3. **Conditioned exclusion of treated debris.** Hazardous debris that has been treated using one of the specified extraction or destruction technologies in table 1 of this section and that does not exhibit a characteristic of hazardous waste identified under sections 33-24-02-10 through 33-24-02-14 after treatment is not a hazardous waste and need not be managed in a subtitle C facility. Hazardous debris contaminated with a listed waste that is treated by an immobilization technology specified in table 1 is a hazardous waste and must be managed in a subtitle C facility.
4. **Treatment residuals.**
- a. General requirements. Except as provided by subdivisions b and ~~d of subsection 4:~~

- (1) Residue from the treatment of hazardous debris must be separated from the treated debris using simple physical or mechanical means; and
 - (2) Residue from the treatment of hazardous debris is subject to the waste-specific treatment standards provided by sections 33-24-05-280 through 33-24-05-289 for the waste contaminating the debris.
- b. Nontoxic debris. Residue from the deactivation of ignitable, corrosive, or reactive characteristic hazardous debris (other than cyanide-reactive) that is not contaminated with a contaminant subject to treatment defined by subsection 2, must be deactivated prior to land disposal and is not subject to the waste-specific treatment standards of sections 33-24-05-280 through 33-24-05-289.
 - c. Cyanide-reactive debris. Residue from the treatment of debris that is reactive because of cyanide must meet the treatment standards for D003 under section 33-24-05-283 in "treatment standards for hazardous wastes" at section 33-24-05-280.
 - d. Ignitable nonwastewater residue. Ignitable nonwastewater residue containing equal to or greater than ten percent total organic carbon is subject to the technology-based standards for D001: "ignitable liquids based on subdivision a of subsection 1 of section 33-24-02-11" under section 33-24-05-282 technology specified in the treatment standard for D001: ignitable liquids.
 - e. Residue from spalling. Layers of debris removed by spalling are hazardous debris that remain subject to the treatment standards of this section.

Table 1. Alternative Treatment Standards for Hazardous Debris¹

Technology Description	Performance and/or Design and Operating Standard	Contaminant Restrictions ²
A. Extraction Technologies:		
1. Physical Extraction		

Table 1. Alternative Treatment Standards for Hazardous Debris¹

Technology Description	Performance and/or Design and Operating Standard	Contaminant Restrictions ²
a. Abrasive Blasting: Removal of contaminated debris surface layers using water and/or air pressure to propel a solid media (for example, steel shot, aluminum oxide grit, plastic beads).	Glass, Metal, Plastic, Rubber: Treatment to a clean debris surface. ³ Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Removal of at least 0.6 cm of the surface layer; treatment to a clean debris surface. ³	All Debris: None.
b. Scarification, Grinding, and Planing: Process utilizing striking piston heads, saws, or rotating grinding wheels such that contaminated debris surface layers are removed.	Same as above.	Same as above.
c. Spalling: Drilling or chipping holes at appropriate locations and depth in the contaminated debris surface and applying a tool which exerts a force on the sides of those holes such that the surface layer is removed. The surface layer removed remains hazardous debris subject to the debris treatment standards.	Same as above.	Same as above.
d. Vibratory Finishing: Process utilizing scrubbing media, flushing fluid, and oscillating energy such that hazardous contaminants or contaminated debris surface layers are removed. ⁴	Same as above.	Same as above.

Table 1. Alternative Treatment Standards for Hazardous Debris¹

Technology Description	Performance and/or Design and Operating Standard	Contaminant Restrictions ²
e. High Pressure Steam and Water Sprays: Application of water or steam sprays of sufficient temperature, pressure, residence time, agitation, surfactants, and detergents to remove hazardous contaminants from debris surfaces or to remove contaminated debris surface layers.	Same as above.	Same as above.
2. Chemical Extraction		
a. Water Washing and Spraying: Application of water sprays or water baths of sufficient temperature, pressure, residence time, agitation, surfactants, acids, bases, and detergents to remove hazardous contaminants from debris surfaces and surface pores or to remove contaminated debris surface layers.	<p>All Debris: Treatment to a clean debris surface³;</p> <p>Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Debris must be no more than 1.2 cm (1/2 inch) in one dimension (for example, thickness limit,⁵ except that this thickness limit may be waived under an "Equivalent Technology" approval under subsection 2 of section 33-24-05-282;⁸ debris surfaces must be in contact with water solution for at least 15 minutes.</p>	<p>Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Contaminant must be soluble to at least 5% by weight in water solution or 5% by weight in emulsion; if debris is contaminated with a dioxin-listed waste,⁶ and "Equivalent Technology" approval under subsection 2 of section 33-24-05-282 must be obtained.⁸</p>

Table 1. Alternative Treatment Standards for Hazardous Debris¹

Technology Description	Performance and/or Design and Operating Standard	Contaminant Restrictions ²
b. Liquid Phase Solvent Extraction: Removal of hazardous contaminants from debris surfaces and surface pores by applying a nonaqueous liquid or liquid solution which causes the hazardous contaminants to enter the liquid phase and be flushed away from the debris along with the liquid or liquid solution while using appropriate agitation, temperature, and residence time. ⁴	Same as above.	Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Same as above, except that contaminant must be soluble to at least 5% by weight in the solvent.
c. Vapor Phase Solvent Extraction: Application of an organic vapor using sufficient agitation, residence time, and temperature to cause hazardous contaminants on contaminated debris surfaces and surface pores to enter the vapor phase and be flushed away with the organic vapor. ⁴	Same as above, except that brick, cloth, concrete, paper, pavement, rock and wood surfaces must be in contact with the organic vapor for at least 60 minutes.	Same as above.
3. Thermal Extraction		
a. High Temperature Metals Recovery: Application of sufficient heat, residence time, mixing, fluxing agents, and/or carbon in a smelting, melting, or refining furnace to separate metals from debris.	For refining furnaces, treated debris must be separated from treatment residuals using simple physical or mechanical means, ⁹ and, prior to further treatment, such residuals must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris.	Debris contaminated with a dioxin-listed waste: ⁵ Obtain an "Equivalent Technology" approval under subsection 2 of section 33-24-05-282. ⁸

Table 1. Alternative Treatment Standards for Hazardous Debris¹

Technology Description	Performance and/or Design and Operating Standard	Contaminant Restrictions ²
b. Thermal Desorption: Heating in an enclosed chamber under either oxidizing or nonoxidizing atmospheres at sufficient temperature and residence time to vaporize hazardous contaminants from contaminated surfaces and surface pores and to remove the contaminants from the heating chamber in a gaseous exhaust gas. ⁷	<p>All Debris: Obtain an "Equivalent Technology" approval under subsection 2 of section 33-24-05-282;⁸ treated debris must be separated from treatment residuals using simple physical or mechanical means,⁹ and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris.</p> <p>Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Debris must be no more than 10 cm (4 inches) in one dimension (for example, thickness limit),⁵ except that this thickness limit may be waived under the "Equivalent Technology" approval.</p>	All Debris: Metals other than mercury.
B. Destruction Technologies:		

Table 1. Alternative Treatment Standards for Hazardous Debris¹

Technology Description	Performance and/or Design and Operating Standard	Contaminant Restrictions ²
1. Biological Destruction (Biodegradation): Removal of hazardous contaminants from debris surfaces and surface pores in an aqueous solution and biodegradation of organic or nonmetallic inorganic compounds (for example, inorganics that contain phosphorus, nitrogen, or sulfur) in units operated under either aerobic or anaerobic conditions.	<p>All Debris: Obtain an "Equivalent Technology" approval under subsection 2 of section 33-24-05-282;⁸ treated debris must be separated from treatment residuals using simple physical or mechanical means,⁹ and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris.</p> <p>Brick, Cloth, Concrete, Paper, Pavement, Rock, wood: Debris must be no more than 1.2 cm (1/2 inch) in one dimension (for example, thickness limit),⁵ except that this thickness limit may be waived under the "Equivalent Technology" approval.</p>	All Debris: Metal contaminants.
2. Chemical Destruction		

Table 1. Alternative Treatment Standards for Hazardous Debris¹

Technology Description	Performance and/or Design and Operating Standard	Contaminant Restrictions ²
<p>a. Chemical Oxidation: Chemical or electrolytic oxidation utilizing the following oxidation reagents (or waste reagents) or combination of reagents-(1) hypochlorite (for example, bleach); (2) chlorine; (3) chlorine dioxide; (4) ozone or UV (ultraviolet light) assisted ozone; (5) peroxides; (6) persulfates; (7) perchlorates; (8) permanganates; and/or (9) other oxidizing reagents of equivalent destruction efficiency.⁴ Chemical oxidation specifically includes what is referred to as alkaline chlorination.</p>	<p>All Debris: Obtain an "Equivalent Technology" approval under subsection 2 of section 33-24-05-282;⁸ treated debris must be separated from treatment residuals using simple physical or mechanical means,⁹ and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris.</p> <p>Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Debris must be no more than 1.2 cm (1/2 inch) in one dimension (for example, thickness limit),⁵ except that this thickness limit may be waived under the "Equivalent Technology" approval.</p>	<p>All Debris: Metal contaminants.</p>
<p>b. Chemical Reduction: Chemical reaction utilizing the following reducing reagents (or waste reagents) or combination of reagents: (1) sulfur dioxide; (2) sodium, potassium, or alkali salts of sulfites, bisulfites, and metabisulfites, and polyethylene glycols (for example, NaPEG and KPEG); (3) sodium hydrosulfide; (4) ferrous salts; and/or (5) other reducing reagents of equivalent efficiency.⁴</p>	<p>Save as above.</p>	<p>Same as above.</p>

Table 1. Alternative Treatment Standards for Hazardous Debris¹

Technology Description	Performance and/or Design and Operating Standard	Contaminant Restrictions ²
<p>3. Thermal Destruction: Treatment in an incinerator operating in accordance with sections 33-24-05-144 through 33-24-05-159 or Subpart O of 40 CFR 265; a boiler or industrial furnace operating in accordance with sections 33-24-05-525 through 33-24-05-549, or other thermal treatment unit operated in accordance with section 33-24-05-300 <u>sections 33-24-05-299</u> through 33-24-05-399, or Subpart P, Part 265 of the 40 CFR, but excluding for purposes of these debris treatment standards Thermal Desorption units.</p> <p>C. Immobilization Technologies:</p> <p>1. Macroencapsulation: Application of surface coating materials such as polymeric organics (for example, resins and plastics) or use of a jacket of inert inorganic materials to substantially reduce surface exposure to potential leaching media.</p>	<p>Treated debris must be separated from treatment residuals using simple physical or mechanical means,⁹ and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris.</p> <p>Encapsulating material must completely encapsulate debris and be resistant to degradation by the debris and its contaminants and materials into which it may come into contact after placement (leachate, other waste, microbes).</p>	<p>Brick, Concrete, Glass, Metal, Pavement, Rock, Metal: Metals other than mercury, except that there are no metal restrictions for vitrification. Debris contaminated with a dioxin-listed waste.⁶ Obtain an "Equivalent Technology" approval under subsection 2 of section 33-24-05-282,⁸ except that this requirement does not apply to vitrification.</p> <p>None.</p>

Table 1. Alternative Treatment Standards for Hazardous Debris¹

Technology Description	Performance and/or Design and Operating Standard	Contaminant Restrictions ²
<p>2. Microencapsulation: Stabilization of the debris with the following reagents (or waste reagents) such that the leachability of the hazardous contaminants is reduced:</p> <p>(1) Portland cement; or</p> <p>(2) lime/pozzolans (for example, fly ash and cement kiln dust). Reagents (for example, iron salts, silicates, and clays) may be added to enhance the set/cure time and/or compressive strength, or to reduce the leachability of the hazardous constituents.⁵</p>	<p>Leachability of the hazardous contaminants must be reduced.</p>	<p>None.</p>
<p>3. Sealing: Application of an appropriate material which adheres tightly to the debris surface to avoid exposure of the surface to potential leaching media. When necessary to effectively seal the surface, sealing entails pretreatment of the debris surface to remove foreign matter and to clean and roughen the surface. Sealing materials include epoxy, silicone, and urethane compounds, but paint may not be used as a sealant.</p>	<p>Sealing must avoid exposure of the debris surface to potential leaching media and sealant must be resistant to degradation by the debris and its contaminants and materials into which it may come into contact after placement (leachate, other waste, microbes).</p>	<p>None.</p>

FOOTNOTE: ¹Hazardous debris must be treated by either these standards of the waste-specific treatment standards for the waste contaminating the debris. The treatment standards must be met for each type of debris contained in a mixture of debris types, unless the debris is converted into treatment residue as a result of the treatment process. Debris treatment residuals are subject to the waste-specific treatment standards for the waste contaminating the debris.

FOOTNOTE: ²Contaminant restriction means that the technology is not BDAT for that contaminant. If debris containing a restricted contaminant is treated by the technology, the contaminant must be subsequently treated by a technology for which it is not restricted in order to be land disposed (and excluded from Article 33-24).

FOOTNOTE: ³"Clean debris surface" means the surface, when viewed without magnification, shall be free of all visible contaminated soil and hazardous waste except that residual staining from soil and waste consisting of light shadows, slight streaks, or minor discolorations, and soil and waste in cracks, crevices, and pits may be present provided that such staining and waste and soil in cracks, crevices, and pits shall be limited to no more than 5% of each square inch of surface area.

FOOTNOTE: ⁴Acids, solvents, and chemical reagents may react with some debris and contaminants to form hazardous compounds. For example, acid washing of cyanide-contaminated debris could result in the formation of hydrogen cyanide. Some acids may also react violently with some debris and contaminants, depending on the concentration of the acid and the type of debris and contaminants. Debris treaters should refer to the safety precautions specified in Material Safety Data Sheets for various acids to avoid applying an incompatible acid to a particular debris/contaminant combination. For example, concentrated sulfuric acid may react violently with certain organic compounds, such as acrylonitrile.

FOOTNOTE: ⁵If reducing the particle size of debris to meet the treatment standards results in material that no longer meets the 60 mm minimum particle size limit for debris, such material is subject to the waste-specific treatment standards for the waste contaminating the material, unless the debris has been cleaned and separated from contaminated soil and waste prior to size reduction. At a minimum, simple physical or mechanical means must be used to provide such cleaning and separation of nondebris materials to ensure that the debris surface is free of caked soil, waste, or other nondebris material.

FOOTNOTE: ⁶Dioxin-listed wastes are hazardous waste numbers F020, F021, F022, F023, F026, and F027.

FOOTNOTE: ⁷Thermal desorption is distinguished from Thermal Destruction in that the primary purpose of Thermal Desorption is to volatilize contaminants and to remove them from the treatment chamber for subsequent destruction or other treatment.

FOOTNOTE: ⁸The demonstration "Equivalent Technology" under subsection 2 of section 33-24-05-282 must document that the technology treats contaminants subject to treatment to a level equivalent to that required by the performance and design and operating standards for other technologies in this table such that residual levels of hazardous contaminants will not pose a hazard to human health and the environment absent management controls.

FOOTNOTE: ⁹Any soil, waste, and other nondebris material that remains on the debris surface (or remains mixed with the debris) after treatment is considered a treatment residual that must be separated from the debris using, at a minimum, simple physical or mechanical means. Examples of simple physical or mechanical means are vibratory or trommel screening or water washing. The debris surface need not be cleaned to a "clean debris surface" as defined in note 3 when separating treated debris from residue; rather, the surface must be free of caked soil, waste, or other nondebris material. Treatment residuals are subject to the waste-specific treatment standards for the waste contaminating the debris.

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

33-24-05-288. Universal treatment standards. Table ~~universal treatment standards~~ "Universal Treatment Standards" identifies the hazardous constituents, along with the nonwastewater and wastewater treatment standard levels, that are used to regulate most prohibited hazardous wastes with numerical limits. For determining compliance with treatment standards for underlying hazardous constituents as defined in subsection 9 10 of section 33-24-05-251, these treatment standards may not be exceeded. Compliance with these treatment standards is measured by an analysis of grab samples, unless otherwise noted in the following table ~~universal treatment standards~~ "Universal Treatment Standards".

Universal Treatment Standards			
Regulated Constituent/ Common Name	CAS ¹ Number	Wastewater Standard Concentration in mg/l ²	Nonwastewater Standard Concentration in mg/kg ³ unless noted as "mg/l TCLP"
I. Organic Constituents:			
A2213⁵	6558-43-1	0.042	1.4
Acenaphthene	83-32-9	0.059	3.4
Acenaphthylene	208-96-8	0.059	3.4
Acetone	67-64-1	0.28	160
Acetonitrile	75-05-8	5.6	38
Acetophenone	96-86-2	0.010	9.7
2-Acetylaminofluorene	53-96-3	0.059	140
Acrolein	107-02-8	0.29	NA

Universal Treatment Standards

Regulated Constituent/ Common Name	CAS ¹ Number	Wastewater Standard Concentration in mg/l ²	Nonwastewater Standard Concentration in mg/kg ³ unless noted as "mg/l TCLP"
Acrylamide	79-06-1	19	23
Acrylonitrile	107-13-1	0.24	84
Aldicarb sulfone ⁶	1646-88-4	0.056	0.28
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 <u>319-85-7</u>	0.00014	0.066
beta-BHC	319-84-7	0.00014	0.066
delta-BHC	319-84-8 <u>319-86-8</u>	0.023	0.066
gamma-BHC	<u>58-89-9</u>	0.00014 <u>0.0017</u>	0.066
Barban ⁶	101-27-9	0.056	1.4
Bendiocarb ⁶	22781-23-3	0.056	1.4
Bendiocarb/phenol ⁶	22961-82-6	0.056	1.4
Benomyl ⁶	17804-35-2	0.056	1.4
Benz(a)anthracene	56-55-3	0.059	3.4
Benzal chloride	98-87-3	0.055	6.0
Benzene	71-43-2	0.14	10
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
Benzo(a)pyrene	50-32-8	0.061	3.4
Bromodichloromethane	75-27-4	0.35	15
Bromomethane/Methyl bromide	74-83-9	0.11	15
4-Bromophenyl phenyl ether	101-55-3	0.055	15
n-Butyl alcohol	71-36-3	5.6	2.6
Butyl benzyl phthalate	85-68-7	0.017	28
Butylate ⁶	2008-41-5	0.042	1.4
2-sec-Butyl-4,6-dinitrophenol/ Dinoseb	88-85-7	0.066	2.5
Carbaryl ⁶	63-25-2	0.006	0.14

Universal Treatment Standards

Regulated Constituent/ Common Name	CAS ¹ Number	Wastewater Standard Concentration in mg/l ²	Nonwastewater Standard Concentration in mg/kg ³ unless noted as "mg/l TCLP"
Carbenzadim ⁶	10605-21-7	0.056	1.4
Carbofuran ⁶	1563-66-2	0.006	0.14
Carbofuran phenol ⁶	1563-38-8	0.056	1.4
Carbon disulfide	75-15-0	3.8	4.8 mg/l TCLP
Carbon tetrachloride	56-23-5	0.057	6.0
Carbosulfan ⁶	55285-14-8	0.028	1.4
Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
p-Chloroaniline	106-47-8	0.46	16
Chlorobenzene	108-90-7	0.057	6.0
Chlorobenzilate	510-15-6	0.10	NA
2-Chloro-1,3-butadiene	126-99-8	0.057	0.28
Chlorodibromomethane	124-48-1	0.057	15
Chloroethane	75-00-3	0.27	6.0
bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2
bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
2-Chloroethyl vinyl ether	110-75-8	0.062	NA
Chloroform	67-66-3	0.046	6.0
bis(2-Chloroisopropyl)ether	39638-32-9	0.055	7.2
p-Chloro-m-cresol	59-50-7	0.018	14
Chloromethane/methyl chloride	74-87-3	0.19	30
2-Chloronaphthalene	91-58-7	0.055	5.6
2-Chlorophenol	95-57-8	0.044	5.7
3-Chloropropylene	107-05-1	0.036	30
Chrysene	218-01-9	0.059	3.4
o-Cresol	95-48-7	0.11	5.6
m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
m-Cumenyl methylcarbamate ⁶	64-00-6	0.056	1.4
Cycloate ⁶	1134-23-2	0.042	1.4
Cyclohexanone	108-94-1	0.36	0.75 mg/l TCLP
o,p'-DD	53-19-0	0.023	0.087
p,p'-DDD	72-54-8	0.023	0.087
o,p'-DDE	3424-82-6	0.031	0.087
p,p'-DDE	72-55-9	0.031	0.087

Universal Treatment Standards

Regulated Constituent/ Common Name	CAS ¹ Number	Wastewater Standard Concentration in mg/l ²	Nonwastewater Standard Concentration in mg/kg ³ unless noted as "mg/l TCLP"
o,p'-DDT	789-02-6	0.0039	0.087
p,p'-DDT	50-29-3	0.0039	0.087
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
Dibenz(a,e)pyrene	192-65-4	0.061	NA
1,2-Dibromo-3-chloropropane	96-12-8	0.11	15
1,2-Dibromoethane/Ethylene dibromide	106-93-4	0.028	15
Dibromomethane	74-95-3	0.11	15
m-Dichlorobenzene	541-73-1	0.036	6.0
o-Dichlorobenzene	95-50-1	0.088	6.0
p-Dichlorobenzene	106-46-7	0.090	6.0
Dichlorodifluoromethane	75-71-8	0.23	7.2
1,1-Dichloroethane	75-34-3	0.059	6.0
1,2-Dichloroethane	107-06-2	0.21	6.0
1,1-Dichloroethylene	75-35-4	0.025	6.0
trans-1,2-Dichloroethylene	156-60-5	0.054	30
2,4-Dichlorophenol	120-83-2	0.044	14
2,6-Dichlorophenol	87-65-0	0.044	14
2,4-Dichlorophenoxyacetic acid/2,4-D	94-75-7	0.72	10
1,2-Dichloropropane	78-87-5	0.85	18
cis-1,3-Dichloropropylene	10061-01-5	0.036	18
trans-1,3-Dichloropropylene	10061-02-6	0.036	18
Dieldrin	60-57-1	0.017	0.13
Diethyl phthalate	84-66-2	0.20	28
Diethylene glycol, dicarbamate ⁵	5952-26-1	0.056	1.4
p-Dimethylaminoazobenzene	60-11-7	0.13	NA
2,4-Dimethyl phenol	105-67-9	0.036	14
Dimethyl phthalate	131-11-3	0.047	28
Dimetilan ⁶	644-64-4	0.056	1.4
Di-n-butyl phthalate	84-74-2	0.057	28
1,4-Dinitrobenzene	100-25-4	0.32	2.3
4,6-Dinitro-o-cresol	534-52-1 <u>534-52-1</u>	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

Universal Treatment Standards

Regulated Constituent/ Common Name	CAS ¹ Number	Wastewater Standard Concentration in mg/l ²	Nonwastewater Standard Concentration in mg/kg ³ unless noted as "mg/l TCLP"
Di-n-octyl phthalate	117-84-0	0.017	28
Di-n-propylnitrosamine	621-64-7	0.40	14
1,4-Dioxane	123-91-1	12.0	170
Diphenylamine (difficult to distinguish from diphenylnitrosamine 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	298-04-3 <u>298-04-4</u>	0.017	6.2
Dithiocarbamates (total) ⁶	137-30-4 <u>NA</u>	0.028	28
Endosulfan I	959-98-8	0.023	0.066
Endosulfan II	33213-65-9	0.029	0.13
Endosulfan sulfate	1031-07-8	0.029	0.13
Endrin	72-20-8	0.0028	0.13
Endrin aldehyde	7421-93-4	0.025	0.13
EPTC ⁶	759-94-4	0.042	1.4
Ethyl acetate	141-78-6	0.34	33
Ethyl benzene	100-41-4	0.057	10
Ethyl cyanide/Propanenitrile	107-12-0	0.24	360
Ethyl ether	60-29-7	0.12	160
Ethyl methacrylate	97-63-2	0.14	160
Ethylene oxide	75-21-8	0.12	NA
bis(2-Ethylhexyl)-phthalate	117-81-7	0.28	28
Famphur	52-85-7	0.017	15
Fluoranthene	206-44-0	0.068	3.4
Fluorene	86-73-7	0.059	3.4
Formetanate hydrochloride ⁶	23422-53-9	0.056	1.4
Formparanate⁶	17702-57-7	0.056	1.4
Heptachlor	76-44-8	0.0012	0.066
Heptachlor epoxide	1024-57-3	0.016	0.066
1,2,3,4,6,7,8-Heptachlorodibenzo- p-dioxin (1,2,3,4,6,7,8-HpCDD)	35822-46-9	0.000035	0.0025
1,2,3,4,6,7,8-Heptachlorodibenzo furan (1,2,3,4,6,7,8-HpCDF)	67-562-39-4	0.000035	0.0025

Universal Treatment Standards

Regulated Constituent/ Common Name	CAS ¹ Number	Wastewater Standard Concentration in mg/l ²	Nonwastewater Standard Concentration in mg/kg ³ unless noted as "mg/l TCLP"
1,2,3,4,7,8,9-Heptachloro dibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673-89-7	0.000035	0.0025
<u>Hexachlorobenzene</u>	<u>118-74-1</u>	<u>0.055</u>	<u>10</u>
Hexachlorobutadiene	87-68-3	0.055	5.6
Hexachlorocyclopentadiene	77-47-4	0.057	2.4
Hexachloroethane	67-72-1	0.055	30
Hexachloropropylene	1888-71-7	0.035	30
HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
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
Isotian⁶	119-38-0	0.056	1.4
Isosafrole	120-58-1	0.081	2.6
Kepone	143-50-0	0.0011	0.13
Methacrylonitrile	126-98-7	0.24	84
Methanol	67-56-1	5.6	0.75 mg/l TCLP
Methapyrilene	91-80-5	0.081	1.5
Methiocarb ⁶	2032-65-7	0.056	1.4
Methomyl ⁶	16752-77-5	0.028	0.14
Methoxychlor	72-43-5	0.25	0.18
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
5-Methylchloranthrene <u>3-Methylchloranthrene</u>	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
Metolcarb ⁶	1129-41-5	0.056	1.4
Mexacarbate ⁶	315-18-4	0.056	1.4
Molinate ⁶	2212-67-1	0.042	1.4
Naphthalene	91-20-3	0.059	5.6

Universal Treatment Standards

Regulated Constituent/ Common Name	CAS ¹ Number	Wastewater Standard Concentration in mg/l ²	Nonwastewater Standard Concentration in mg/kg ³ unless noted as "mg/l TCLP"
2-Naphthylamine	91-59-8	0.52	NA
o-Nitroaniline	88-74-4	0.27	14
p-Nitroaniline	100-01-6	0.028	28
Nitrobenzene	98-95-3	0.068	14
5-Nitro-o-toluidine	99-55-8	0.32	28
o-Nitrophenol	88-75-5	0.028	13
p-Nitrophenol	100-02-7	0.12	29
N-Nitrosodiethylamine	55-18-5	0.40	28
N-Nitrosodimethylamine	62-75-9	0.40	2.3
N-Nitroso-di-n-butylamine <u>N-Nitroso-di-n-butylamine</u>	924-16-3	0.40	17
N-Nitrosomethylethylamine	10595-95-6	0.40	2.3
N-Nitrosomorpholine	59-89-2	0.40	2.3
N-Nitrosopiperidine	100-75-4	0.013	35
N-Nitrosopyrrolidine	930-55-2	0.013	35
1,2,3,4,6,7,8,9-Octachlorodibenzo- p-dioxin (OCDD)	3268-87-9	0.000063	0.005
1,2,3,4,6,7,8,9-Octachlorodibenzo furan (OCDF)	39001-02-0	0.000063	0.005
Oxamyl ⁶	23135-22-0	0.056	0.28
Parathion	56-38-2	0.014	4.6
Total PCBs (sum of all PCB isomers, or all Aroclors) ⁸	1336-36-3	0.10	10
Pebulate ⁶	1114-71-2	0.042	1.4
Pentachlorobenzene	608-93-5	0.055	10
PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
PeCDFs (All Pentachlorodibenzofurans <u>Pentachlorodibenzo-furans</u>)	NA	0.000035	0.001
Pentachloroethane	76-01-7	0.055	6.0
Pentachloronitrobenzene	82-68-8	0.055	4.8
Pentachlorophenol	87-86-5	0.089	7.4
Phenacetin	62-44-2	0.081	16
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
o-Phenylenediamine⁶	95-54-5	0.056	5.6
Phorate	298-02-2	0.021	4.6

Universal Treatment Standards

Regulated Constituent/ Common Name	CAS ¹ Number	Wastewater Standard Concentration in mg/l ²	Nonwastewater Standard Concentration in mg/kg ³ unless noted as "mg/l TCLP"
Phthalic acid	100-21-0	0.055	28
Phthalic anhydride	85-44-9	0.055	28
Physostigmine ⁶	57-47-6	0.056	1.4
Physostigmine salicylate ⁶	57-64-7	0.056	1.4
Promecarb ⁶	2631-37-0	0.056	1.4
Pronamide	23950-58-5	0.093	1.5
Propham ⁶	122-42-9	0.056	1.4
Propoxur ⁶	114-26-1	0.056	1.4
Prosulfocarb ⁶	52888-80-9	0.042	1.4
Pyrene	129-00-0	0.067	8.2
Pyridine	110-86-1	0.014	16
Safrole	94-59-7	0.081	22
Silvex/2,4,5-TP	93-72-1	0.72	7.9
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
Thiodicarb ⁶	59669-26-0	0.019	1.4
Thiophanate-methyl ⁶	23564-05-8	0.056	1.4
Tirpate ⁶	26419-73-8	0.056	0.28
Toluene	108-88-3	0.080	10
Toxaphene	8001-35-2	0.0095	2.6
Triallate ⁶	2303-17-5	0.042	1.4
Tribromomethane/Bromoform	75-25-2	0.63	15
1,2,4-Trichlorobenzene	120-82-1	0.055	19
1,1,1-Trichloroethane	71-55-6	0.054	6.0
1,1,2-Trichloroethane	79-00-5	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0
Trichloromonofluoromethane <u>Trichlorofluoromethane</u>	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

Universal Treatment Standards

Regulated Constituent/ Common Name	CAS ¹ Number	Wastewater Standard Concentration in mg/l ²	Nonwastewater Standard Concentration in mg/kg ³ unless noted as "mg/l TCLP"
2,4,5-Trichlorophenoxyacetic acid/2,4,5-T	<u>93-76-5</u>	0.72	7.9
1,2,3-Trichloropropane	96-18-4	0.85	30
1,1,2-Trichloro-2,2,2-trifluoroethane <u>1,1,2-Trichloro-1,2,2-trifluoroethane</u>	76-13-1	0.057	30
Triethylamine ⁶	101-44-8 <u>121-44-8</u>	0.081	1.5
tris-(2,3-Dibromopropyl) phosphate	126-72-7	0.11	0.10
Vernolate ⁶	1929-77-7	0.042	1.4
Vinyl chloride	75-01-4	0.27	6.0
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
II. Inorganic Consitutents:			
Antimony	7440-36-0	1.9	2.1 <u>1.15</u> mg/l TCLP
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Barium	7440-39-3	1.2	7.6 <u>21</u> mg/l TCLP
Beryllium	7440-41-7	0.82	0.014 <u>1.22</u> mg/l TCLP
Cadmium	7440-43-9	0.69	0.19 <u>0.11</u> mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.66 <u>0.60</u> mg/l TCLP
Cyanides (Total) ⁴	57-12-5	1.2	590
Cyanides (Amenable) ⁴	57-12-5	0.86	30
Fluoride ⁵	16984-48-8	35 <u>35</u>	NA
Lead	7439-92-1	0.69	0.37 <u>0.75</u> mg/l TCLP
Mercury--Nonwastewater from Retort	7439-97-6	NA	0.20 mg/l TCLP
Mercury--All Others	7439-97-6	0.15	0.025 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 <u>11</u> mg/l TCLP
Selenium ⁷	7782-49-2	0.82	0.16 <u>5.7</u> mg/l TCLP
Silver	7440-22-4	0.43	0.30 <u>0.14</u> mg/l TCLP
Sulfide ⁵	18496-25-8	14 <u>14</u>	NA
Thallium	7440-28-0	1.4	0.078 <u>0.20</u> mg/l TCLP
Vanadium* ⁵	7440-62-2	4.3	0.23 <u>1.6</u> mg/l TCLP
Zinc ⁵	7440-66-6	2.61	5.3 <u>4.3</u> mg/l TCLP

- 1 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.
- 2 Concentration standards for wastewaters are expressed in mg/l and are based on analysis of composite samples.
- 3 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, and the applicable requirements under subsection 5 of section 33-24-06-16, 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.
- 4 Both cyanides (total) and cyanides (amenable) for nonwastewaters are to be analyzed using Method 9010 or 9012, found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", environmental protection agency publication SW-846, as incorporated by reference in section 33-24-02-05, with a sample size of 10 grams and a distillation time of one hour and fifteen minutes.
- 5 These constituents are not "underlying hazardous constituents" in characteristic wastes, according to the definition at subsection 10 of section 33-24-05-251.
- 6 Between August 26, 1998, and March 4, 1999, these constituents are not underlying hazardous constituents as defined in subsection 10 of section 33-24-05-251.
- 7 This constituent is not an underlying hazardous constituent as defined in subsection 10 of section 33-24-05-251 because its UTS level is greater than its toxicity characteristic level, thus a treated selenium waste would always be characteristically hazardous, unless it is treated to below its characteristic level.
- 8 This standard is temporarily deferred for soil exhibiting a hazardous characteristic due to D004 through D011 only.

Note: NA means not applicable.

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

General Authority: NDCC 23-20.3-03

Law Implemented: NDCC 23-20.3-04

33-24-05-289. [Reserved] Alternative land disposal restriction treatment standards for contaminated soil.

1. Applicability. You must comply with land disposal restrictions prior to placing soil that exhibits a characteristic of hazardous waste, or exhibited a characteristic of hazardous waste at the time it was generated, into a land disposal unit. The following chart describes whether you must comply with land disposal restrictions prior to placing soil contaminated by listed hazardous waste into a land disposal unit:

<u>If land disposal restrictions</u>	<u>And if land disposal restrictions</u>	<u>And if</u>	<u>Then you</u>
<u>Applied to the listed waste when it contaminated the soil.</u>	<u>Apply to the listed waste now.</u>		<u>Must comply with the land disposal restrictions.</u>

Did not apply to the listed waste when it contaminated the soil*.

Apply to the listed waste now.

The soil is determined to contain a listed waste when the soil is first generated.

Must comply with the land disposal restrictions.

Did not apply to the listed waste when it contaminated the soil*.

Apply to the listed waste now.

The soil is determined not to contain a listed waste when the soil is first generated.

Need not comply with the land disposal restrictions.

Did not apply to the listed waste when it contaminated the soil*.

Do not apply to the listed waste now.

Need not comply with the land disposal restrictions.

*For dates of land disposal restriction applicability, see appendix XI to chapter 33-24-05. To determine the date any given listed hazardous waste contaminated any given volume of soil, use the last date any given listed hazardous waste was placed into any given land disposal unit or, in the case of an accidental spill, the date of the spill.

2. Prior to land disposal, contaminated soil identified by subsection 1 as needing to comply with land disposal restrictions must be treated according to the applicable treatment standards specified in subsection 3 or according to the universal treatment standards specified in section 33-24-05-288 applicable to the contaminating listed hazardous waste or the applicable characteristic of hazardous waste if the soil is characteristic, or both. The treatment standards specified in subsection 3 and the universal treatment standards may be modified through a treatment variance approved in accordance with section 33-24-05-284.
3. Treatment standards for contaminated soils. Prior to land disposal, contaminated soil identified by subsection 1 as needing to comply with land disposal restrictions must be treated according to all the standards specified in this subsection or according to the universal treatment standards specified in section 33-24-05-288.
 - a. All soils. Prior to land disposal, all constituents subject to treatment must be treated as follows:
 - (1) For nonmetals, except carbon disulfide, cyclohexanone, and methanol, treatment must achieve ninety percent reduction in total constituent concentrations, except as provided by paragraph 3.
 - (2) For metals and carbon disulfide, cyclohexanone, and methanol, treatment must achieve ninety percent reduction in constituent concentrations as measured in leachate from the treated media (tested according to the toxicity characteristic leaching procedure) or ninety percent reduction in total constituent concentrations (when a metal removal treatment technology is used), except as provided by paragraph 3.

- (3) When treatment of any constituent subject to treatment to a ninety percent reduction standard would result in a concentration less than ten times the universal treatment standard for that constituent, treatment to achieve constituent concentrations less than ten times the universal treatment standard is not required. Universal treatment standards are identified in table "universal treatment standards" in section 33-24-05-288.
- b. Soils that exhibit the characteristic of ignitability, corrosivity, or reactivity. In addition to the treatment required by subdivision a, prior to land disposal, soils that exhibit the characteristic of ignitability, corrosivity, or reactivity must be treated to eliminate these characteristics.
- c. Soils that contain nonanalyzable constituents. In addition to the treatment requirements of subdivisions a and b, prior to land disposal, the following treatment is required for soils that contain nonanalyzable constituents:
 - (1) For soil that also contains only analyzable and nonanalyzable organic constituents, treatment of the analyzable constituents to the levels specified in subdivisions a and b; or
 - (2) For soil that contains only nonanalyzable constituents, treatment by the method or methods specified in section 33-24-05-282 for the waste contained in the soil.
- 4. Constituents subject to treatment. When applying the soil treatment standards in subsection 3, constituents subject to treatment are any constituents listed in section 33-24-05-288, table "universal treatment standards" that are reasonably expected to be present in any given volume of contaminated soil, except fluoride, selenium, sulfides, vanadium, and zinc, and are present at concentrations greater than ten times the universal treatment standard. Polychlorinated biphenyls are not a constituent subject to treatment in any given volume of soil which exhibits the toxicity characteristic solely because of the presence of metals.
- 5. Management of treatment residuals. Treatment residuals from treating contaminated soil identified by subsection 1 as needing to comply with land disposal restrictions must be managed as follows:
 - a. Soil residuals are subject to the treatment standards of this section;
 - b. Nonsoil residuals are subject to:

- (1) For soils contaminated by listed hazardous waste, the article 33-24 standards applicable to the listed hazardous waste; and
- (2) For soils that exhibit a characteristic of hazardous waste, if the nonsoil residual also exhibits a characteristic of hazardous waste, the treatment standards applicable to the characteristic hazardous waste.

History: Effective December 1, 2003.

General Authority: NDCC 23-20.3-03

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

33-24-05-290. Prohibitions on storage of restricted wastes.

1. Except as provided in this section, the storage of hazardous wastes restricted from land disposal under sections 33-24-05-270 through 33-24-05-279 is prohibited, unless the following conditions are met:
 - a. A generator stores such wastes in tanks, containers, or containment buildings onsite solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal and the generator complies with the requirements in section 33-24-03-12, chapter 33-24-05, and the applicable requirements of subsection 5 of section 33-24-06-16;
 - b. An owner or operator of a hazardous waste treatment, storage, or disposal facility stores such wastes in tanks, containers, or containment buildings solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal and:
 - (1) Each container is clearly marked to identify its contents and the date each period of accumulation begins; and
 - (2) Each tank is clearly marked with a description of its contents, the quantity of each hazardous waste received, and the date each period of accumulation begins, or such information for each tank is recorded and maintained in the operating record at that facility. Regardless of whether the tank itself is marked, an owner or operator shall comply with the operating record requirements specified in section 33-24-05-40; and
 - c. A transporter stores manifested shipments of such wastes at a transfer facility for ten days or less.
2. An owner or operator of a treatment, storage, or disposal facility may store such wastes for up to one year unless the department

can demonstrate that such storage was not solely for the purpose of accumulation of such quantities of hazardous wastes as are necessary to facilitate proper recovery, treatment, or disposal.

3. An owner or operator of a treatment, storage, or disposal facility may store such wastes beyond one year; however, the owner or operator bears the burden of proving that such storage was solely for the purpose of accumulation of such quantities of hazardous wastes as are necessary to facilitate proper recovery, treatment, or disposal.
4. If a generator's waste is exempt from a prohibition on the type of land disposal utilized for the waste, for example, because of an approved case-by-case extension under section 33-24-05-254, or a national capacity variance under ~~sections 33-24-05-270 through 33-24-05-279~~ section 33-24-05-255, the prohibition in subsection 1 does not apply during the period of such exemption.
5. The prohibition in subsection 1 does not apply to hazardous wastes that meet the treatment standard specified under sections 33-24-05-281, 33-24-05-282, and 33-24-05-283 or the treatment standard specified under the variance in section 33-24-05-284, or, where treatment standards have not been specified, is in compliance with the applicable prohibitions specified in section 33-24-04-272 or Resource Conservation and Recovery Act section 3004.
6. Liquid hazardous wastes containing polychlorinated biphenyls at concentrations greater than or equal to fifty parts per million must be stored at a facility that meets the requirements of 40 CFR 761.65(b) and must be removed from storage and treated or disposed as required under sections 33-24-05-250 through 33-24-05-299 within one year of the date when such wastes are first placed into storage. The provisions of subsection 3 do not apply to such polychlorinated biphenyls wastes prohibited under section 33-24-05-272.
7. The prohibition and requirements in this section do not apply to hazardous remediation wastes stored in a staging pile approved pursuant to section 33-24-05-554.

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

33-24-05-301. Environmental performance standards. A miscellaneous unit must be located, designed, constructed, operated, maintained, and closed in a manner that will ensure protection of human health and the environment. Permits for miscellaneous units are to contain such terms and provisions as necessary to protect human health and the environment, including, but not limited to, as appropriate, design and operating requirements, detection and monitoring

requirements, and requirements for responses to releases of hazardous waste or hazardous constituents from the unit. Permit terms and provisions must include those requirements of sections 33-24-05-89 through ~~33-24-05-317~~ 33-24-05-190, sections 33-24-05-400 through 33-24-05-474, chapter 33-24-06, 40 CFR part 63, subpart EEE, and 40 CFR part 146 that are appropriate for the miscellaneous unit being permitted. Protection of human health and the environment includes, but is not limited to:

1. Prevention of any releases that may have adverse effects on human health or the environment due to migration of waste constituents in the ground water or subsurface environment, considering:
 - a. The volume and physical and chemical characteristics of the waste in the unit, including its potential for migration through soil, liners, or other containing structures;
 - b. The hydrologic and geologic characteristics of the unit and the surrounding area;
 - c. The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground water;
 - d. The quantity and direction of ground water flow;
 - e. The proximity to and withdrawal rates of current and potential ground water users;
 - f. The patterns of land use in the region;
 - g. The potential for deposition or migration of waste constituents into subsurface physical structures, and into the root zone of food chain crops and other vegetation;
 - h. The potential for health risks caused by human exposure to waste constituents; and
 - i. The potential for damage to domestic animals, wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents.
2. Prevention of any releases that may have adverse effects on human health or the environment due to migration of waste constituents in surface water, or wetlands or on the soil surface considering:
 - a. The volume and physical and chemical characteristics of the waste in the unit;

- b. The effectiveness and reliability of containing, confining, and collecting systems in structures in preventing migration;
 - c. The hydrologic characteristics of the unit and the surrounding area, including the topography of the land around the unit;
 - d. The patterns of precipitation in the region;
 - e. The quantity, quality, and direction of ground water flow;
 - f. The proximity of the unit to surface waters;
 - g. The current and potential uses of nearby surface waters and any water quality standards established for those surface waters;
 - h. The existing quality of surface waters and surface soils, including other sources of contamination and their cumulative impact on surface waters and surface soils;
 - i. The patterns of land use in the region;
 - j. The potential for health risks caused by human exposure to waste constituents; and
 - k. The potential for damage to domestic animals, wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents.
3. Prevention of any release that may have adverse effects on human health or the environment due to migration of waste constituents in the air, considering:
- a. The volume and physical and chemical characteristics of the waste in the unit, including its potential for the emission and dispersal of gases, aerosols, and particulate;
 - b. The effectiveness and reliability of systems and structures to reduce or prevent emissions of hazardous constituents to the air;
 - c. The operating characteristics of the unit;
 - d. The atmospheric, meteorologic, and topographic characteristics of the unit and the surrounding area;
 - e. The existing quality of the air, including other sources of contamination and their cumulative impact on the air;

- f. The potential for health risks caused by human exposure to waste constituents; and
- g. The potential for damage to domestic animals, wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents.

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

33-24-05-400. Applicability to air emission standards for process vents.

1. The regulations of sections 33-24-05-400 through 33-24-05-419 apply to owners and operators of facilities that treat, store, or dispose of hazardous wastes (except as provided in section 33-24-05-01).
2. Except for subsections 4 and 5 of section 33-24-05-404, sections 33-24-05-400 through 33-24-05-419 apply to process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations that manage hazardous wastes with organic concentrations of at least ten parts per million weight, if these operations are conducted in one of the following:
 - a. A unit that is subject to the permitting requirements of chapter 33-24-06; ~~or~~
 - b. A unit (including a hazardous waste recycling unit) that is not exempt from permitting under the provisions of subsection 1 of section 33-24-03-12 (for example, a hazardous waste recycling unit that is not a ninety-day tank or container) and that is located at a hazardous waste management facility otherwise subject to the permitting requirements of chapter 33-24-06; ~~or~~
 - c. A unit ~~(including a hazardous waste recycling unit)~~ that is exempt from permitting under the provisions of subsection 1 of section 33-24-03-12 (for example, a ninety-day tank or container) and is not a recycling unit under the provisions of section 33-24-02-06.

[Note: The requirements of sections 33-24-05-402 through 33-24-05-406 apply to process vents on hazardous waste recycling units previously exempt under subdivision a of subsection 3 of section 33-24-02-06. Other exemptions under section 33-24-02-04 and subsection 7 of section 33-24-05-01 are not affected by these requirements.]

3. ~~If the owner or operator of process vents subject to the requirements of sections 33-24-05-402 through 33-24-05-406 has received a permit under chapter 33-24-06 prior to December 21, 1990, the requirements of sections 33-24-05-402 through 33-24-05-406 must be incorporated when the permit is reissued under section 33-04-05-11 or reviewed under section 33-24-06-06. [Note: The requirements of sections 33-24-05-402 through 33-24-05-406 apply to process vents on hazardous waste recycling units previously exempt under subdivision a of subsection 3 of section 33-24-02-06. Other exemptions under sections 33-24-02-04, 33-24-03-12, and subsection 7 of section 33-24-05-01 are not affected by these requirements.] For the owner and operator of a facility subject to sections 33-24-05-400 through 33-24-05-419 and who received a final state-issued hazardous waste permit under article 33-24 prior to December 6, 1996, the requirements of section 33-24-05-400 through 33-24-05-419 shall be incorporated into the permit when the permit is reissued in accordance with the requirements of section 33-24-07-11 or reviewed in accordance with the requirements of subsection 1 of section 33-24-06-06. Until such date when the owner and operator receive a final state-issued hazardous waste permit incorporating the requirements of sections 33-24-05-400 through 33-24-05-419, the owner and operator are subject to the applicable requirements of subsection 5 of section 33-24-06-16.~~

[Note: The requirements of sections 33-24-05-402 through 33-24-05-406 apply to process vents on hazardous waste recycling units previously exempt under subdivision a of subsection 3 of section 33-24-02-06. Other exemptions under section 33-24-02-04 and subsection 7 of section 33-24-05-01 are not affected by these requirements.]

4. [Reserved]
5. The requirements of sections 33-24-05-400 through 33-24-04-419 do not apply to the process vents at a facility where the facility owner or operator certifies that all of the process vents that would otherwise be subject to sections 33-24-05-400 through 33-24-05-419 are equipped with and operating air emission controls in accordance with the process vent requirements of an applicable Clean Air Act regulation codified under 40 CFR part 60, 61, or 63. The documentation of compliance under regulations at 40 CFR part 60, 61, or 63 shall be kept with, or made readily available with, the facility operating record.

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

33-24-05-401. Definitions. As used in sections 33-24-05-400 through 33-24-05-419, all terms not defined herein have the meaning given in North

Dakota Century Code chapter 23-20.3 and chapters 33-24-01 through 33-24-05 of this article.

1. "Air stripping operation" is a desorption operation employed to transfer one or more volatile components from a liquid mixture into a gas (air) either with or without the application of heat to the liquid. Pack towers, spray towers, and bubble-cap, sieve, or valve-type plate towers are among the process configurations used for contacting the air and a liquid.
2. "Bottoms receiver" means a container or tank used to receive and collect the heavier bottoms fractions of the distillation feed stream that remain in the liquid phase.
3. "Closed-vent system" means a system that is not open to the atmosphere and that is composed of piping, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device.
4. "Condenser" means a heat-transfer device that reduces a thermodynamic fluid from its vapor phase to its liquid phase.
5. "Connector" means flange, screwed, welded, or other joined fittings used to connect two pipelines or a pipeline and a piece of equipment. For the purposes of reporting and recordkeeping, "connector" means flanged fittings that are not covered by insulation or other materials that prevent location of the fittings.
6. "Continuous recorder" means a data-recording device recording an instantaneous data value at least once every fifteen minutes.
7. "Control device" means an enclosed combustion device vapor recovery system, or flare. Any device the primary function of which is the recovery or capture of solvent or other organic for use, reuse, or sale (e.g., a primary condenser on a solvent recovery unit) is not a control device.
8. "Control device shutdown" means the cessation of operation of a control device for any purpose.
9. "Distillate receiver" means a container or tank used to receive and collect liquid material (condensed) from the overhead condenser of a distillation unit and from which the condensed liquid is pumped to larger storage tanks or other process units.
10. "Distillation operation" means an operation, either batch or continuous separating one or more feed streams into two or more exit streams, each exit stream having component concentrations different from those in the feed streams. The separation is achieved by the redistribution of

the components between the liquid and vapor phase as they approach equilibrium within the distillation unit.

11. "Double-block and bleed system" means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.
12. "Equipment" means each valve, pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, or flange or other connector, and any control devices or systems required by sections 33-24-05-400 through 33-24-05-419.
13. "First attempt at repair" means to take rapid action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.
14. "Flame zone" means the portion of the combustion chamber in a boiler occupied by the flame envelope.
15. "Flow indicator" means a device that indicates whether gas flow is present in a vent stream.
16. "Fractionation operation" means a distillation operation or method used to separate a mixture of several volatile components of different boiling points in successive stages, each stage removing from the mixture some proportion of one of the components.
17. "Hazardous waste management unit shutdown" means a work practice or operational procedure that stops operation of a hazardous waste management unit or part of a hazardous waste management unit. An unscheduled work practice or operational procedure that stops operation of a hazardous waste management unit or part of a hazardous waste management unit for less than twenty-four hours is not a hazardous waste management unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping operation are not hazardous waste management unit shutdowns.
18. "Hot well" means a container for collecting condensate as in a steam condenser serving a vacuum-jet or steam-jet ejector.
19. "In gas or vapor service" means that the piece of equipment contains or contacts a hazardous waste stream that is in the gaseous state at operating conditions.
20. "In heavy liquid service" means that the piece of equipment is not in gas or vapor service or in light liquid service.

21. "In light liquid service" means that the piece of equipment contains or contacts a waste stream where the vapor pressure of one or more of the organic components in the stream is greater than three-tenths kilopascals at twenty degrees ~~Centigrade~~ Celsius, ~~the total concentration~~, the total concentration of the ~~purest~~ pure organic components having a vapor pressure greater than three-tenths kilopascals at twenty degrees ~~Centigrade~~ Celsius is equal to or greater than twenty percent by weight, and the fluid is a liquid at operating conditions.
22. "In situ sampling systems" means nonextracted samplers or inline samplers.
23. "In vacuum service" means that equipment is operating at an internal pressure that is at least five kilopascals below ambient pressure.
24. "Malfunction" means any sudden failure of a control device or a hazardous waste management unit or failure of a hazardous waste management unit to operate in a normal or usual manner, so that organic emissions are increased.
25. "Open-ended valve or line" means any valve, except pressure release valves, having one side of the valve seat in contact with ~~process fluid~~ hazardous waste and one side open to the atmosphere, either directly or through open piping.
26. "Pressure release" means the emission of materials resulting from the system pressure being greater than the set pressure of the pressure release device.
27. "Process heater" means a device that transfers heat liberated by burning fuel to fluids contained in tubes, including all fluids except water that are heated to produce steam.
28. "Process vent" means any open-ended pipe or stack that is vented to the atmosphere either directly, through a vacuum-producing system, or through a tank (e.g., distillate receiver, condenser, bottoms receiver, surge control tank, separator tank, or hot well) associated with hazardous waste distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations.
29. "Repaired" means that equipment is adjusted, or otherwise altered, to eliminate a leak.
30. "Sampling connection system" means an assembly of equipment within a process or waste management unit used during periods of representative operation to take samples of the process of waste fluid. Equipment used to take nonroutine grab examples is not considered a sampling connection system.

- ~~31.~~ 31. "Sensor" means a device that measures a physical quantity or the change in a physical quantity, such as temperature, pressure, flow rate, pH, or liquid level.
- ~~31.~~ 32. "Separator tank" means a device used for separation of two immiscible liquids.
- ~~32.~~ 33. "Solvent extraction operation" means an operation or method of separation in which a solid or solution is contacted with a liquid solvent (the two being mutually insoluble) to preferentially dissolve and transfer one or more components into the solvent.
- ~~33.~~ 34. "Start-up" means the setting in operation of a hazardous waste management unit or control device for any purpose.
- ~~34.~~ 35. "Steam stripping operation" means a distillation operation in which vaporization of the volatile constituents of a liquid mixture takes place by the introduction of steam directly into the charge.
- ~~35.~~ 36. "Surge control tank" means a large-sized pipe or storage reservoir sufficient to contain the surging liquid discharge of the process tank to which it is connected.
- ~~36.~~ 37. "Thin-film evaporation operation" means a distillation operation that employs a heating surface consisting of a large diameter tube that may be either straight or tapered, horizontal or vertical. Liquid is spread on the tube wall by a rotating assembly of blades that maintain a close clearance from the wall or actually ride on the film of liquid on the wall.
- ~~37.~~ 38. "Vapor incinerator" means any enclosed combustion device that is used for destroying organic compounds and does not extract energy in the form of steam or process heat.
- ~~38.~~ 39. "Vented" means discharged through an opening, typically an open-ended pipe or stack, allowing the passage of a stream of liquids, gases, or fumes into the atmosphere. The passage of liquids, gases, or fumes is caused by mechanical means such as compressors or vacuum-producing systems or by process-related means such as evaporation produced by heating and not caused by tank loading and unloading (working losses) or by natural means such as diurnal temperature changes.

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

General Authority: NDCC 23-20.3-03

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