3745-270-01 Purpose, scope, and applicability - land disposal restrictions.

- (A) Chapter 3745-270 of the Administrative Code identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances under which an otherwise prohibited waste may continue to be land disposed.
- (B) Except as specifically provided otherwise in Chapter 3745-51 or 3745-270 of the Administrative Code, Chapter 3745-270 of the Administrative Code applies to persons who generate or transport hazardous waste and owners and operators of hazardous waste treatment, storage, and disposal facilities.
- (C) Restricted wastes may continue to be land disposed as follows:
 - (1) Where persons have been granted an extension to the effective date of a prohibition under rules 3745-270-20 to 3745-270-39 of the Administrative Code, or pursuant to rule 3745-270-05 of the Administrative Code, with respect to those wastes covered by the extension:
 - (2) Where persons have been granted an exemption from a prohibition pursuant to a petition under rule 3745-270-06 of the Administrative Code, with respect to those wastes and units covered by the exemption:
 - (3) Wastes that are hazardous only because the wastes exhibit a hazardous characteristic, and which are otherwise prohibited from land disposal under Chapter 3745-270 of the Administrative Code or 40 C.F.R.CFR Part 148 are not prohibited from land disposal if the wastes meet the following criteria:
 - (a) Are disposed into a nonhazardous or hazardous injection well as described in 40 C.F.R.CFR 144.6(a); and
 - (b) Do not exhibit any prohibited characteristic of hazardous waste identified in rules 3745-51-20 to 3745-51-24 of the Administrative Code at the point of injection.
 - (4) Wastes that are hazardous only because the wastes exhibit a hazardous characteristic, and which are otherwise prohibited by Chapter 3745-270 of the Administrative Code, 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 rule 3745-270-40 of the Administrative Code, or are D003 reactive cyanide:
 - (a) 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 (CWA); or

(b) The wastes are treated for the purposes of the pretreatment requirements of Section 307 of the CWA; or

- (c) The wastes are managed in a zero discharge system engaged in "CWA-equivalent treatment" as defined in paragraph (A) of rule 3745-270-37 of the Administrative Code; and
- (d) The wastes no longer exhibit a prohibited characteristic at the point of land disposal (i.e., placement in a surface impoundment).
- (D) Chapter 3745-270 of the Administrative Code does not affect the availability of a waiver under Section 121(d)(4) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).
- (E) The following hazardous wastes are not subject to any provision of Chapter 3745-270 of the Administrative Code:
 - (1) Waste generated by "very small quantity generators,", as defined in rule 3745-50-10 of the Administrative Code:
 - (2) Waste pesticides that a farmer disposes of pursuant to rule 3745-52-70 of the Administrative Code-:
 - (3) Wastes identified or listed as hazardous after November 8, 1984 for which Ohio EPA has not promulgated land disposal prohibitions or treatment standards:
 - (4) De minimis losses of characteristic wastes to wastewaters are not considered to be prohibited wastes and are defined as losses from normal material handling operations (e.g. spills from the unloading or transfer of materials from bins or other containers; leaks from pipes, valves, or other devices used to transfer materials); minor leaks of process equipment, storage tanks, or containers; leaks from well-maintained pump packings and seals; sample purgings; and relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; rinsate from empty containers or from containers that are rendered empty by that rinsing; and laboratory wastes not exceeding one per cent of the total flow of wastewater into the facility's headworks on an annual basis, or with a combined annualized average concentration not exceeding one part per million in the headworks of the facility's wastewater treatment or pretreatment facility.
- (F) "Universal waste handlers" and "universal waste transporters," as defined in rule 3745-50-10 of the Administrative Code, are exempt from rules 3745-270-07 and 3745-270-50 of the Administrative Code for the <u>hazardous</u> wastes listed in paragraphs (F)(1) to (F)(5) of this rule. These handlers and transporters are subject to regulation

under Chapter 3745-273 of the Administrative Code—when handling the following universal wastes:

- (1) Batteries as described in rule 3745-273-02 of the Administrative Code:
- (2) Pesticides as described in rule 3745-273-03 of the Administrative Code:
- (3) Mercury-containing equipment as described in rule 3745-273-04 of the Administrative Code-:
- (4) Lamps as described in rule 3745-273-05 of the Administrative Code:
- (5) Aerosol cans as described in rule 3745-273-06 of the Administrative Code; and
- (5)(6) Ohio-specific universal wastes, which include the following:
 - (a) Aerosol containers as described in paragraph (A) of rule 3745-273-89 of the Administrative Code.
 - (b)(a) Antifreeze as described in paragraph (B) of rule 3745-273-89 of the Administrative Code; and
 - (e)(b) Paint and paint-related waste as described in paragraph (C) of rule 3745-273-89 of the Administrative Code.

3745-270-01 4

Effective: 10/23/2022

Five Year Review (FYR) Dates: 7/20/2022 and 07/20/2027

CERTIFIED ELECTRONICALLY

Certification

10/11/2022

Date

Promulgated Under: 119.03 Statutory Authority: 3734.12 Rule Amplifies: 3734.12

Prior Effective Dates: 12/30/1989, 02/11/1992, 09/02/1997, 12/07/2000,

 $12/07/2004,\, 02/16/2009,\, 09/05/2010,\, 03/17/2012,\,$

12/21/2017, 10/05/2020

3745-270-02 **Definitions**-pertaining to-land disposal restrictions.

- (A) When used in Chapter 3745-270 of the Administrative Code, the following terms have the meanings given in this rule:
 - (1) "Debris" means:
 - (a) Solid material exceeding a 60.0 millimeter particle size that is intended for disposal and that is:
 - (i) A manufactured object; or
 - (ii) Plant or animal matter; or
 - (iii) Natural geologic material.
 - (b) However, the following materials are not debris:
 - (i) Any material for which a specific treatment standard is provided in rules 3745-270-40 to 3745-270-49 of the Administrative Code, namely lead acid batteries, cadmium batteries, and radioactive lead solids;
 - (ii) Process residuals such as smelter slag and residues from the treatment of waste, wastewater, sludges, or air emission residues; and
 - (iii) Intact containers of hazardous waste that are not ruptured and that retain at least seventy-five per cent of their the original volume.
 - (c) A mixture of debris that has not been treated to the standards provided by rule 3745-270-45 of the Administrative Code and other material is subject to regulation as debris if the mixture is comprised primarily of debris, by volume, based on visual inspection.
 - (2) "Hazardous constituent" or "hazardous constitutents" means those constituents in the appendix to rule 3745-51-11 of the Administrative Code.
 - (3) "Hazardous debris" means debris that contains a hazardous waste listed in rules 3745-51-30 to 3745-51-35 of the Administrative Code, or that exhibits a characteristic of hazardous waste identified in rules 3745-51-20 to 3745-51-24 of the Administrative Code. Any deliberate mixing of prohibited hazardous waste with debris that changes itsthe treatment classification of the material (i.e., from waste to hazardous debris) is not allowed under the dilution prohibition in rule 3745-270-03 of the Administrative Code.

(4) "Inorganic metal-bearing waste" is one for which Ohio EPA has established treatment standards for metal hazardous constituents, and which does not otherwise contain significant organic or cyanide content as described in paragraph (C)(1) of rule 3745-270-03 of the Administrative Code, and is specifically listed in the appendix to rule 3745-270-03 of the Administrative Code.

- (5) "Land disposal" means placement in or on the land, except in a corrective action management unit or a 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.
- (6) "Nonwastewaters" are wastes that do not meet the criteria for "wastewaters" as defined in this rule.
- (7) "Polychlorinated biphenyls" or "PCBs" are halogenated organic compounds defined in accordance with under 40 CFR 761.3.
- (8) "Soil" means unconsolidated earth material composing the superficial geologic strata (material overlying bedrock), consisting of clay, silt, sand, or gravel size particles as classified by the U.S. natural resources conservation service, or a mixture of such materials with liquids, sludges, or solids which is inseparable by simple mechanical removal processes, and is made up primarily of soil by volume based on visual inspection. Any deliberate mixing of prohibited hazardous waste with soil that changes itsithe treatment classification of the material (i.e., from waste to contaminated soil) is not allowed under the dilution prohibition in rule 3745-270-03 of the Administrative Code.
- (9) "Underlying hazardous constituent" means any constituent listed in the table in rule 3745-270-48 of the Administrative Code, 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.
- (10) "Wastewaters" are wastes that contain less than one per cent by weight total organic carbon and less than one per cent by weight total suspended solids.
- (B) All other terms have the meanings given in rule 3745-50-10, 3745-51-02, or 3745-51-03 of the Administrative Code.

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, federal rules, and federal statutory provisions

referenced in this rule, see rule 3745-50-11 of the Administrative Code titled "Incorporated by reference."]

Effective: 9/29/2021

Five Year Review (FYR) Dates: Exempt

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03/17/2012

3745-270-03 Dilution prohibited as a substitute for treatment.

- (A) Except as provided in paragraph (B) of this rule, no generator, transporter, handler, or owner or operator of a treatment, storage, or disposal facility mustshall 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 rules 3745-270-40 to 3745-270-49 of the Administrative Code, to circumvent the effective date of a prohibition in rules 3745-270-20 to 3745-270-39 of the Administrative Code, to otherwise avoid a prohibition in rules 3745-270-20 to 3745-270-39 of the Administrative Code, or to circumvent a land disposal prohibition imposed by Section 3004 of RCRA.
- (B) Dilution of wastes that are hazardous only because theythe wastes exhibit a characteristic in treatment systems which include land-based units which treat wastes subsequently discharged to a water of the United States pursuant to a permit issued under Section 402 of the Clean Water Act (CWA), or which treat wastes in a CWA-equivalent treatment system, or which treat wastes for purposes of pretreatment requirements under Section 307 of the CWA is not impermissible dilution for purposes of this rule unless a method other than DEACT has been specified in rule 3745-270-40 of the Administrative Code as the treatment standard, or unless the waste is a D003 reactive cyanide wastewater or nonwastewater.
- (C) Combustion of the EPA hazardous waste numbers listed in the appendix to this rule is prohibited, unless the waste, at the point of generation, or after any bona fide treatment such as cyanide destruction prior to combustion, can be demonstrated to comply with one or more of the following criteria (unless otherwise specifically prohibited from combustion):
 - (1) The waste contains hazardous organic constituents or cyanide at levels exceeding the constituent-specific treatment standard in rule 3745-270-48 of the Administrative Code;
 - (2) The waste consists of organic, debris-like materials (e.g., wood, paper, plastic, or cloth) contaminated with an inorganic metal-bearing hazardous waste;
 - (3) The waste, at point of generation, has reasonable heating value such as greater than or equal to five thousand British thermal units (Btu) per pound;
 - (4) The waste is co-generated with wastes for which combustion is a required method of treatment;
 - (5) The waste is subject to federal and/oror state requirements necessitating reduction of organics (including biological agents); or

- (6) The waste contains greater than one per cent total organic carbon.
- (D) It is a form of impermissible dilution, and therefore prohibited, to add iron filings or other metallic forms of iron to lead-containing hazardous wastes in order to achieve any land disposal restriction treatment standard for lead. Lead-containing wastes include D008 wastes (wastes exhibiting a characteristic due to the presence of lead), all characteristic wastes containing lead as an underlying hazardous constituent, listed wastes containing lead as a regulated constituent, and hazardous media containing any of the aforementioned lead-containing wastes.

Effective: 9/29/2021

Five Year Review (FYR) Dates: Exempt

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Prior Effective Dates: 12/30/1989, 02/11/1992, 12/07/2000, 12/07/2004,

03/17/2012

3745-270-03 APPENDIX 1

Appendix to rule 3745-270-03 of the Administrative Code

Metal Bearing Waste Prohibited from Dilution in a Combustion Unit According to paragraph (C) of rule 3745-270-03 of the Administrative Code *

EPA hazardous waste number	Waste Description
D004	Toxicity characteristic for arsenic
D005	Toxicity characteristic for barium
D006	Toxicity characteristic for cadmium
D007	Toxicity characteristic for chromium
D008	Toxicity characteristic for lead
D009	Toxicity characteristic for mercury
D010	Toxicity characteristic for selenium
D011	Toxicity characteristic for silver
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc plating on carbon steel; (5) cleaning/stripping associated with tin, zinc, and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum
F007	Spent cyanide plating bath solutions from electroplating operations
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process
F010	Quenching bath residues from oil baths from metal treating operations where cyanides are used in the process
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations
F012	Quenching waste water treatment sludges from metal heat treating operations where cyanides are used in the process
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum car washing when such phosphating is an exclusive conversion coating process

Waste number K002 Wastewater treatment sludge from the production of chrome yellow and orange pigments K003 Wastewater treatment sludge from the production of molybdate orange pigments K004 Wastewater treatment sludge from the production of zinc yellow pigments K005 Wastewater treatment sludge from the production of chrome green pigments K006 Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated) K007 Wastewater treatment sludge from the production of iron blue pigments K008 Oven residue from the production of chrome oxide green pigments K001 Emission control dust/sludge from the primary production of steel in electric furnaces K069 Emission control dust/sludge from secondary lead smelting K071 Brine purification muds from the mercury cell processes in chlorine production, where separately prepurified brine is not used K100 Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting K106 Sludges from the mercury cell processes for making chlorine P010 Arsenic acid H ₃ AsO ₄ P011 Arsenic oxide As ₂ O ₅ P012 Arsenic trioxide P013 Barium cyanide P015 Beryllium P029 Copper cyanide Cu(CN) P074 Nickel cyanide Ni(CN) ₂ P087 Osmium tetroxide P099 Potassium silver cyanide P104 Silver cyanide P105 Thallic oxide P113 Thallic oxide	EPA hazardous	
Normal Country		Waste Description
pigments K004 Wastewater treatment sludge from the production of zinc yellow pigments K005 Wastewater treatment sludge from the production of chrome green pigments K006 Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated) K007 Wastewater treatment sludge from the production of iron blue pigments K008 Oven residue from the production of chrome oxide green pigments K061 Emission control dust/sludge from the primary production of steel in electric furnaces K069 Emission control dust/sludge from secondary lead smelting K071 Brine purification muds from the mercury cell processes in chlorine production, where separately prepurified brine is not used K100 Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting K106 Sludges from the mercury cell processes for making chlorine P010 Arsenic acid H ₃ AsO ₄ P011 Arsenic oxide As ₂ O ₅ P012 Arsenic trioxide P013 Barium cyanide P015 Beryllium P029 Copper cyanide Cu(CN) P074 Nickel cyanide Ni(CN) ₂ P087 Osmium tetroxide P099 Potassium silver cyanide P104 Silver cyanide P105 Silver cyanide P113 Thallic oxide	K002	
K005 Wastewater treatment sludge from the production of chrome green pigments K006 Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated) K007 Wastewater treatment sludge from the production of iron blue pigments K008 Oven residue from the production of chrome oxide green pigments K008 Emission control dust/sludge from the primary production of steel in electric furnaces K069 Emission control dust/sludge from secondary lead smelting K071 Brine purification muds from the mercury cell processes in chlorine production, where separately prepurified brine is not used K100 Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting K106 Sludges from the mercury cell processes for making chlorine P010 Arsenic acid H ₃ AsO ₄ P011 Arsenic oxide As ₂ O ₅ P012 Arsenic trioxide P013 Barium cyanide P015 Beryllium P029 Copper cyanide Cu(CN) P074 Nickel cyanide Ni(CN) ₂ P087 Osmium tetroxide P099 Potassium silver cyanide P104 Silver cyanide P105 Thallic oxide	K003	1
K006 Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated) K007 Wastewater treatment sludge from the production of iron blue pigments K008 Oven residue from the production of chrome oxide green pigments K008 Emission control dust/sludge from the primary production of steel in electric furnaces K069 Emission control dust/sludge from secondary lead smelting K071 Brine purification muds from the mercury cell processes in chlorine production, where separately prepurified brine is not used K100 Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting K106 Sludges from the mercury cell processes for making chlorine P010 Arsenic acid H ₃ AsO ₄ P011 Arsenic oxide As ₂ O ₅ P012 Arsenic trioxide P013 Barium cyanide P015 Beryllium P029 Copper cyanide Cu(CN) P074 Nickel cyanide Ni(CN) ₂ P087 Osmium tetroxide P099 Potassium silver cyanide P104 Silver cyanide P105 Thallic oxide	K004	Wastewater treatment sludge from the production of zinc yellow pigments
pigments (anhydrous and hydrated) K007 Wastewater treatment sludge from the production of iron blue pigments K008 Oven residue from the production of chrome oxide green pigments K061 Emission control dust/sludge from the primary production of steel in electric furnaces K069 Emission control dust/sludge from secondary lead smelting K071 Brine purification muds from the mercury cell processes in chlorine production, where separately prepurified brine is not used K100 Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting K106 Sludges from the mercury cell processes for making chlorine P010 Arsenic acid H ₃ AsO ₄ P011 Arsenic oxide As ₂ O ₅ P012 Arsenic trioxide P013 Barium cyanide P015 Beryllium P029 Copper cyanide Cu(CN) P074 Nickel cyanide Ni(CN) ₂ P087 Osmium tetroxide P099 Potassium silver cyanide P104 Silver cyanide P103 Thallic oxide	K005	Wastewater treatment sludge from the production of chrome green pigments
K008 Oven residue from the production of chrome oxide green pigments K061 Emission control dust/sludge from the primary production of steel in electric furnaces K069 Emission control dust/sludge from secondary lead smelting K071 Brine purification muds from the mercury cell processes in chlorine production, where separately prepurified brine is not used K100 Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting K106 Sludges from the mercury cell processes for making chlorine P010 Arsenic acid H ₃ AsO ₄ P011 Arsenic oxide As ₂ O ₅ P012 Arsenic trioxide P013 Barium cyanide P015 Beryllium P029 Copper cyanide Cu(CN) P074 Nickel cyanide Ni(CN) ₂ P087 Osmium tetroxide P099 Potassium silver cyanide P104 Silver cyanide P103 Thallic oxide	K006	
K061 Emission control dust/sludge from the primary production of steel in electric furnaces K069 Emission control dust/sludge from secondary lead smelting K071 Brine purification muds from the mercury cell processes in chlorine production, where separately prepurified brine is not used K100 Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting K106 Sludges from the mercury cell processes for making chlorine P010 Arsenic acid H ₃ AsO ₄ P011 Arsenic oxide As ₂ O ₅ P012 Arsenic trioxide P013 Barium cyanide P015 Beryllium P029 Copper cyanide Cu(CN) P074 Nickel cyanide Ni(CN) ₂ P087 Osmium tetroxide P099 Potassium silver cyanide P104 Silver cyanide P104 Silver cyanide	K007	Wastewater treatment sludge from the production of iron blue pigments
furnaces K069 Emission control dust/sludge from secondary lead smelting K071 Brine purification muds from the mercury cell processes in chlorine production, where separately prepurified brine is not used K100 Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting K106 Sludges from the mercury cell processes for making chlorine P010 Arsenic acid H ₃ AsO ₄ P011 Arsenic oxide As ₂ O ₅ P012 Arsenic trioxide P013 Barium cyanide P015 Beryllium P029 Copper cyanide Cu(CN) P074 Nickel cyanide Ni(CN) ₂ P087 Osmium tetroxide P099 Potassium silver cyanide P104 Silver cyanide P113 Thallic oxide	K008	Oven residue from the production of chrome oxide green pigments
K071 Brine purification muds from the mercury cell processes in chlorine production, where separately prepurified brine is not used K100 Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting K106 Sludges from the mercury cell processes for making chlorine P010 Arsenic acid H ₃ AsO ₄ P011 Arsenic oxide As ₂ O ₅ P012 Arsenic trioxide P013 Barium cyanide P015 Beryllium P029 Copper cyanide Cu(CN) P074 Nickel cyanide Ni(CN) ₂ P087 Osmium tetroxide P109 Potassium silver cyanide P104 Silver cyanide P113 Thallic oxide	K061	
production, where separately prepurified brine is not used K100 Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting K106 Sludges from the mercury cell processes for making chlorine P010 Arsenic acid H ₃ AsO ₄ P011 Arsenic oxide As ₂ O ₅ P012 Arsenic trioxide P013 Barium cyanide P015 Beryllium P029 Copper cyanide Cu(CN) P074 Nickel cyanide Ni(CN) ₂ P087 Osmium tetroxide P104 Silver cyanide P104 Silver cyanide P113 Thallic oxide	K069	Emission control dust/sludge from secondary lead smelting
from secondary lead smelting K106 Sludges from the mercury cell processes for making chlorine P010 Arsenic acid H ₃ AsO ₄ P011 Arsenic oxide As ₂ O ₅ P012 Arsenic trioxide P013 Barium cyanide P015 Beryllium P029 Copper cyanide Cu(CN) P074 Nickel cyanide Ni(CN) ₂ P087 Osmium tetroxide P104 Silver cyanide P104 Silver cyanide P113 Thallic oxide	K071	· · ·
P010 Arsenic acid H ₃ AsO ₄ P011 Arsenic oxide As ₂ O ₅ P012 Arsenic trioxide P013 Barium cyanide P015 Beryllium P029 Copper cyanide Cu(CN) P074 Nickel cyanide Ni(CN) ₂ P087 Osmium tetroxide P099 Potassium silver cyanide P104 Silver cyanide P113 Thallic oxide	K100	
P011 Arsenic oxide As ₂ O ₅ P012 Arsenic trioxide P013 Barium cyanide P015 Beryllium P029 Copper cyanide Cu(CN) P074 Nickel cyanide Ni(CN) ₂ P087 Osmium tetroxide P099 Potassium silver cyanide P104 Silver cyanide P113 Thallic oxide	K106	Sludges from the mercury cell processes for making chlorine
P012 Arsenic trioxide P013 Barium cyanide P015 Beryllium P029 Copper cyanide Cu(CN) P074 Nickel cyanide Ni(CN) ₂ P087 Osmium tetroxide P099 Potassium silver cyanide P104 Silver cyanide P113 Thallic oxide	P010	Arsenic acid H ₃ AsO ₄
P013 Barium cyanide P015 Beryllium P029 Copper cyanide Cu(CN) P074 Nickel cyanide Ni(CN) ₂ P087 Osmium tetroxide P099 Potassium silver cyanide P104 Silver cyanide P113 Thallic oxide	P011	Arsenic oxide As ₂ O ₅
P015 Beryllium P029 Copper cyanide Cu(CN) P074 Nickel cyanide Ni(CN) ₂ P087 Osmium tetroxide P099 Potassium silver cyanide P104 Silver cyanide P113 Thallic oxide	P012	Arsenic trioxide
P029 Copper cyanide Cu(CN) P074 Nickel cyanide Ni(CN) ₂ P087 Osmium tetroxide P099 Potassium silver cyanide P104 Silver cyanide P113 Thallic oxide	P013	Barium cyanide
P074 Nickel cyanide Ni(CN) ₂ P087 Osmium tetroxide P099 Potassium silver cyanide P104 Silver cyanide P113 Thallic oxide	P015	Beryllium
P087 Osmium tetroxide P099 Potassium silver cyanide P104 Silver cyanide P113 Thallic oxide	P029	Copper cyanide Cu(CN)
P099 Potassium silver cyanide P104 Silver cyanide P113 Thallic oxide	P074	Nickel cyanide Ni(CN) ₂
P104 Silver cyanide P113 Thallic oxide	P087	Osmium tetroxide
P113 Thallic oxide	P099	Potassium silver cyanide
	P104	Silver cyanide
P114 Thallium (I) selenite	P113	Thallic oxide
	P114	Thallium (I) selenite

EPA hazardous waste number	Waste Description
P115	Thallium (I) sulfate
P119	Ammonium vanadate
P120	Vanadium oxide V ₂ O ₅
P121	Zinc cyanide
U032	Calcium chromate
U145	Lead phosphate
U151	Mercury
U204	Selenious acid
U205	Selenium disulfide
U216	Thallium (I) chloride
U217	Thallium (I) nitrate

Footnotes:

* A "combustion unit" is defined as any thermal technology subject to rules 3745-57-40 to 3745-57-51 and 3745-68-40 to 3745-68-52 of the Administrative Code, and/or or rules 3745-266-100 to 3745-266-112 of the Administrative Code.

3745-270-04 Treatment surface impoundment exemption.

- (A) Wastes which are otherwise prohibited from land disposal under Chapter 3745-270 of the Administrative Code may be treated in a surface impoundment or series of impoundments provided that:
 - (1) Treatment of such wastes occurs in the impoundments;
 - (2) The following conditions are met:
 - (a) Sampling and testing. For wastes with treatment standards in rules 3745-270-40 to 3745-270-49 of the Administrative Code and/oror prohibition levels in rules 3745-270-20 to 3745-270-39 of the Administrative Code or Section 3004(d) of RCRA, the residues from treatment are analyzed, as specified in rule 3745-270-07 of the Administrative Code, to determine if theythe residues 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 rule 3745-54-13 or 3745-65-13 of the Administrative Code, mustshall be designed such that representative samples of the sludge and the supernatant are tested separately rather than mixed to form homogeneous samples:
 - (b) Removal. The following treatment residues (including any liquid waste) mustshall be removed at least annually: residues which do not meet the treatment standards promulgated under rules 3745-270-40 to 3745-270-49 of the Administrative Code; residues which do not meet the prohibition levels established under rules 3745-270-20 to 3745-270-39 of the Administrative Code or imposed by statute (where no treatment standards have been established); residues which are from the treatment of wastes prohibited from land disposal under rules 3745-270-20 to 3745-270-39 of the Administrative Code (where no treatment standards have been established and no prohibition levels apply); or residues from managing listed wastes which are not delisted under 40 CFR 260.22. If the volume of liquid flowing through the impoundment or series of impoundments annually is greater than the volume of the impoundment or impoundments, this flow-through constitutes removal of the supernatant for the purpose of this requirement::
 - (c) Subsequent management. Treatment residues may not be placed in any other surface impoundment for subsequent management:
 - (d) Recordkeeping. Sampling and testing and recordkeeping provisions of rules 3745-54-13 and 3745-65-13 of the Administrative Code apply: and

(3) The impoundment meets the design requirements in paragraph (C) of rule 3745-56-21 or paragraph (A) of 3745-67-21 of the Administrative Code, regardless that the unit may not be new, expanded, or a replacement, and be in compliance with applicable ground water monitoring requirements of rules 3745-54-90 to 3745-54-101 or 3745-65-90 to 3745-65-94 of the Administrative Code unless:

- (a) Exempted pursuant to paragraph (D) or (E) of rule 3745-56-21, or paragraph (C) or (D) of rule 3745-67-21 of the Administrative Code; or,
- (b) Upon application by the owner or operator, the director, after notice and an opportunity to comment, the director has granted a waiver of the requirements on the basis that the surface impoundment:
 - (i) Has at least one liner, for which there is no evidence that such liner is leaking;
 - (ii) Is located more than one-quarter mile from an underground source of drinking water; and
 - (iii) Is in compliance with generally applicable ground water monitoring requirements for facilities with permits; or
- (c) Upon application by the owner or operator, the director, 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: and
- (4) The owner or operator submits to the director a written certification that the requirements of paragraph (A)(3) of this rule have been met. The following certification is required:
 - "I certify under penalty of law that the requirements of paragraph (A)(3) of rule 3745-270-04 of the Administrative Code have been met for all surface impoundments being used to treat restricted wastes. I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."
- (B) Evaporation of hazardous constituents as the principal means of treatment is not considered to be treatment for purposes of an exemption under this rule.

Effective: 9/29/2021

Five Year Review (FYR) Dates: Exempt

CERTIFIED ELECTRONICALLY

Certification

09/14/2021

Date

Promulgated Under: 119.03 Statutory Authority: 3734.12 Rule Amplifies: 3734.12

Prior Effective Dates: 12/30/1989, 02/11/1992, 12/07/2000, 03/13/2002,

12/07/2004, 09/05/2010, 03/17/2012

3745-270-05 Procedures for case-by-case extensions to an effective date.

- (A) Any person who generates, treats, stores, or disposes of a hazardous waste may seek an extension to any applicable restriction established under rules 3745-270-20 to 3745-270-39 of the Administrative Code by submitting an application to the administrator pursuant to 40 CFR 268.5.
- (B) Ohio EPA will recognize the administrator's decision to grant or deny an application for an extension under 40 CFR 268.5.

Effective: 2/12/2018

Five Year Review (FYR) Dates: 10/30/2017 and Exempt

CERTIFIED ELECTRONICALLY

Certification

01/10/2018

Date

Promulgated Under: 119.03 Statutory Authority: 3734.12 Rule Amplifies: 3734.12

Prior Effective Dates: 12/30/1989, 02/11/1992, 12/07/2000, 03/17/2012

ACTION: Final

3745-270-06 Petitions to allow land disposal of a waste prohibited under rules 3745-270-20 to 3745-270-39 of the Administrative Code.

- (A) Any person seeking an exemption from a prohibition under rules 3745-270-20 to 3745-270-39 of the Administrative Code for the disposal of a restricted hazardous waste in a particular unit or units mustshall submit a petition to the administrator pursuant to 40 CFR 268.6.
- (B) Ohio EPA willshall recognize the administrator's decision to grant or deny a petition for an exemption under 40 CFR 268.6.

Effective: 2/12/2018

Five Year Review (FYR) Dates: 10/30/2017 and Exempt

CERTIFIED ELECTRONICALLY

Certification

01/10/2018

Date

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Prior Effective Dates: 12/30/1989, 02/11/1992, 12/07/2000, 03/13/2002,

03/17/2012

ACTION: Final

3745-270-07

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

- (A) Requirements for generators: and reverse distributors.
 - (1) A generator of a hazardous waste shall determine if the waste has to be treated before the waste can be land disposed. This is done by determining if the hazardous waste meets the treatment standards in rule 3745-270-40, 3745-270-45, or 3745-270-49 of the Administrative Code. This determination can be made concurrently with the hazardous waste determination required in rule 3745-52-11 of the Administrative Code, in either of two ways: by testing the waste or by using knowledge of the waste.
 - (a) 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," U.S. EPA publication SW-846, depending on whether the treatment standard for the waste is expressed as a total concentration or as concentration of hazardous constituent in the waste's extract. [Alternatively, the generator shall send the waste to a permitted hazardous waste treatment facility, where the waste treatment facility shall comply with rule 3745-54-13 of the Administrative Code and paragraph (B) of this rule.]
 - (b) In addition, some hazardous wastes shall be treated by particular treatment methods before such hazardous wastes can be land disposed, and some soils are contaminated with such hazardous wastes. These treatment standards are in rule 3745-270-40 of the Administrative Code, and are described in detail in the table in rule 3745-270-42 of the Administrative Code. These wastes, and soils contaminated with such wastes, do not need to be tested (however, if such wastes are in a waste mixture, other wastes with concentration level treatment standards would have to be tested).
 - (c) If a generator determines that the generator is managing a waste or soil contaminated with a waste that displays a hazardous characteristic of ignitability, characteristic of corrosivity, characteristic of reactivity, or characteristic of toxicity, the generator shall comply with the special requirements of rule 3745-270-09 of the Administrative Code in addition to any applicable requirements in this rule.
 - (2) If the waste or contaminated soil does not meet the treatment standards, or if the generator chooses not to make the determination of whether the generator's waste shall be treated, with the initial shipment of waste to each treatment

or storage facility, the generator shall send a one-time written notice to each treatment or storage facility receiving the waste, and place a copy in the generator's files. The notice shall include the information in column A of table 1 of this rule. (Alternatively, if the generator chooses not to make the determination of whether the waste shall be treated, the notification shall include the EPA hazardous waste numbers and manifest number of the first shipment and shall state "This hazardous waste may or may not be subject to the LDR treatment standards. The treatment facility shall make that determination.") No further notification is necessary until such time as the waste changes or the treatment or storage facility changes, in which case a new notification shall be sent to the new treatment or storage facility and a copy shall be placed in the generator's files.

- (3) If the waste or contaminated soil meets the treatment standard at the original point of generation:
 - (a) With the initial shipment of waste to each treatment, storage, or disposal facility, the generator shall send a one-time written notice to each treatment, storage, or disposal facility receiving the waste, and place a copy in the generator's files. The notice shall include the information in column B of table 1 of this rule 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 rules 3745-270-40 to 3745-270-49 of the Administrative Code. 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 fine and imprisonment."

- (b) For contaminated soil, with the initial shipment of wastes to each treatment, storage, or disposal facility, the generator shall send a one-time written notice to each facility receiving the waste, and place a copy in the generator's files. The notice shall include the information in column B of table 1 of this rule.
- (c) If the waste changes, the generator shall send a new notice and certification to the receiving facility, and place a copy in the generator's files. Generators of hazardous debris excluded from the definition of "hazardous waste" under paragraph (F) of rule 3745-51-03 of the Administrative Code are not subject to these requirements.

(4) For reporting, tracking, and recordkeeping when exceptions allow certain wastes or contaminated soil that do not meet the treatment standards to be land disposed. There are certain exemptions from the requirements that hazardous wastes or contaminated soil meet treatment standards before such hazardous wastes or contaminated soil can be land disposed. These include, but are not limited to case-by-case extensions under rule 3745-270-05 of the Administrative Code, disposal in a no-migration unit under rule 3745-270-06 of the Administrative Code, or a national capacity variance or case-by-case capacity variance under rules 3745-270-20 to 3745-270-39 of the Administrative Code. If a generator's waste is so exempt, then with the initial shipment of waste, the generator shall send a one-time written notice to each land disposal facility receiving the waste. The notice shall include the information in column C of table 1 of this rule. If the waste changes, the generator shall send a new notice to the receiving facility, and place a copy in the generator's files.

<u>Table 1: Generator Paperwork Requirements</u>

Table 1: Generator Paperwork Requirements				
	Column A	Column B	Column C	Column D
Required Information	3745-270-07 (A)(2)	3745-270-07 (A)(3)	3745-270-07 (A)(4)	3745-270-07 (A)(9)
1. EPA hazardous waste numbers and manifest number of first shipment.	X	X	X	X
2. Statement: This waste is not prohibited from land disposal.			X	
3. The waste is subject to the land disposal restrictions (LDRs) of Chapter 3745-270 of the Administrative Code. The constituents of concern for F001 to F005, and F039, and underlying hazardous constituents in characteristic wastes,	X	X		

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 the constituents on the LDR notice.				
4. The notice shall include the applicable wastewater or non-wastewater category (see the definitions of "wastewaters" and "nonwastewaters" in rule 3745-270-02 of the Administrative Code) and subdivisions made within an EPA hazardous waste number based on waste-specific criteria (such as D003 reactive cyanide).	X	X		
5. Waste analysis data (when available).	X	X	X	
6. Date the waste is subject to the prohibition.			X	
7. For hazardous debris, when treating with the alternate treatment technologies provided by rule 3745-270-45 of the Administrative Code: the contaminants subject to treatment, as described in paragraph (B) of rule 3745-270-45 of the Administrative Code,	X		X	

and an indication that these contaminants are being treated to comply with rule 3745-270-45 of the Administrative Code.			
8. For contaminated soil subject to LDRs as provided in paragraph (A) of rule 3745-270-49 of the Administrative Code, the constituents subject to treatment as described in paragraph (D) of rule 3745-270-49 of the Administrative Code, and the following statement: This contaminated soil [does/does not] contain listed hazardous waste and [does/does not] exhibit a characteristic of hazardous waste and [is subject to or complies with] the soil treatment standards as provided by paragraph (C) of rule 3745-270-49 of the Administrative Code or the universal treatment standards.	X	X	
9. A certification is needed (see applicable rule for exact wording).		X	X

(5) If a generator is managing and treating prohibited waste or contaminated soil in tanks, containers, or containment buildings regulated under rule 3745-52-34rules 3745-52-15, 3745-52-16, and 3745-52-17 of the Administrative Code to meet applicable LDR treatment standards in rule 3745-270-40 of the Administrative Code, the generator shall 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 alternate treatment standards of the table in rule 3745-270-45 of the Administrative Code, however, are not subject to this waste analysis requirement.) The waste analysis plan shall be kept on site in the generator's records, and the following requirements shall be met:

- (a) The waste analysis plan shall 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 Chapter 3745-270 of the Administrative Code, including the selected testing frequency.
- (b) The waste analysis plan shall be kept in the generator's on-site files and made available to inspectors.
- (c) Wastes shipped off-site pursuant to paragraph (A)(5) of this rule shall comply with the notification requirements of paragraph (A)(3) of this rule.

(6) If a generator determines any of the following:

- (a) 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 shall be retained on-site in the generator's files.
- (b) That the waste is restricted based on testing this waste or an extract developed using the test method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," U.S. EPA publication SW-846, and all waste analysis data shall be retained on-site in the generator's files.
- (7) If a generator determines that the generator is managing a prohibited waste that is excluded from the definition of "hazardous waste" or "waste," or is exempt from regulation as a hazardous waste under rules 3745-51-02 to 3745-51-06 of the Administrative Code subsequent to the point of generation [including deactivated characteristic hazardous wastes managed in wastewater treatment systems subject to the Clean Water Act (CWA) as specified in paragraph (A)(2) of rule 3745-51-04 of the Administrative Code, or are CWA-equivalent, or are managed in an underground injection well regulated by the Safe Drinking Water Act], the generator shall place in the generator's files a one-time notice describing such generation, subsequent exclusion from the

definition of "hazardous waste" or "waste" or exemption from regulation as a hazardous waste, and the disposition of the waste.

- (8) Generators shall retain on-site a copy of all notices, certifications, waste analysis data, and other documentation produced pursuant to this rule for at least three years fromafter the date that the waste that is the subject of such documentation was last sent to on-site or off-site treatment, storage, or disposal. The three yearthree-year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the director. This paragraph applies to the wastes even when the hazardous characteristic is removed prior to disposal, when the waste is excluded from the definition of "hazardous waste" or "waste" under rules 3745-51-02 to 3745-51-06 of the Administrative Code, or when the waste is exempted from regulation as a hazardous waste, subsequent to the point of generation.
- (9) If a generator is managing a lab pack <u>eontainingthat contains</u> hazardous wastes and wishes to use the alternative treatment standard for lab packs in paragraph (C) of rule 3745-270-42 of the Administrative Code:
 - (a) With the initial shipment of waste to a treatment facility, the generator shall submit a notice that provides the information in column D of table 1 of this rule, and the following certification. The certification, which shall be signed by an authorized representative and shall be placed in the generator's files, shall 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 A to rule 3745-270-42 of the Administrative Code, and that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs in paragraph (C) of rule 3745-270-42 of the Administrative Code. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."
 - (b) 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 shall be sent to the new receiving facility and a copy placed in the generator's files.
 - (c) If the lab pack contains characteristic hazardous wastes (D001 to D043), "underlying hazardous constituents" (as defined in rule 3745-270-02 of the Administrative Code) need not be determined.

(d) The generator shall comply with paragraphs (A)(6) and (A)(7) of this rule.

- (10) Small quantity generators with tolling agreements pursuant to paragraph (F)(E) of rule 3745-52-20 of the Administrative Code shall comply with the applicable notification and certification requirements of paragraph (A) of this rule for the initial shipment of the waste subject to the tolling agreement. Such generators shall retain on-site a copy of the notification and certification, together with the tolling agreement, for at least three years after termination or expiration of the tolling 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 director.
- (B) Treatment facilities shall test the wastes according to the frequency specified in the treatment facility's waste analysis plans as required by rule 3745-54-13 or 3745-65-13 of the Administrative Code. Such testing shall be performed as provided in paragraphs (B)(1), (B)(2), and (B)(3) of this rule.
 - (1) For wastes or contaminated soil with treatment standards expressed as concentrations in the waste extract (TCLP), the owner or operator of the treatment facility shall test an extract of the treatment residues, using test method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," U.S. EPA publication SW-846, to assure that the treatment residues extract meet the applicable treatment standards in Chapter 3745-270 of the Administrative Code.
 - (2) For wastes or contaminated soil with treatment standards expressed as concentrations in the waste, the owner or operator of the treatment facility shall test the treatment residues (not an extract of such residues) to assure that the treatment residues meet the applicable treatment standards in Chapter 3745-270 of the Administrative Code.
 - (3) A one-time notice shall be sent with the initial shipment of waste or contaminated soil to the land disposal facility. A copy of the notice shall be placed in the treatment facility's file.
 - (a) No further notification is necessary until such time that the waste changes or the receiving facility changes, in which case a new notice shall be sent to the new receiving facility and a copy placed in the treatment facility's files.
 - (b) The one-time notice shall include the requirements in table 2 of this rule:

Table 2: Treatment Facility Paperwork Requirements

Table 2: Treatment Facility Paperwork Requirements	
Required information	3745-270-07(B)
1. EPA hazardous waste numbers and manifest number of first shipment	X
2. The waste is subject to the LDRs of Chapter 3745-270 of the Administrative Code. The constituents of concern for F001 to 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 of the constituents on the LDR notice.	X
3. The notice shall include the applicable wastewater or nonwastewater category {(see the definitions of "wastewaters" and "nonwastewaters" in of rule 3745-270-02 of the Administrative Code) and subdivisions made within an EPA hazardous waste number based on waste-specific criteria (such as D003 reactive cyanide)].	X
4. Waste analysis data (when available)	X
5. For contaminated soil subject to LDRs as provided in paragraph (A) of rule 3745-270-49 of the Administrative Code, the constituents subject to treatment as described in paragraph (D) of rule 3745-270-49 of the Administrative Code, and the following statement: "This contaminated soil [does/does not] contain listed hazardous waste and [does/does not] exhibit a characteristic of hazardous waste and [is subject to or complies with] the soil treatment standards as provided by paragraph (C) of rule 3745-270-49 of the Administrative Code."	X
6. A certification is needed (see applicable rule for exact wording)	X

(4) The treatment facility shall 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 shall 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 treatment process has been operated and maintained properly so as to comply with the treatment standards specified in rule 3745-270-40 of the Administrative Code without impermissible dilution of the prohibited wastes. I am aware that 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 the certification shall state:

"I certify under penalty of law that I personally have 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 rule 3745-270-49 of the Administrative Code 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."

- (a) A copy of the certification shall be placed in the treatment facility's on-site files. If the waste or treatment residue changes or if the receiving facility changes, a new certification shall be sent to the receiving facility, and a copy placed in the file.
- (b) Debris excluded from the definition of "hazardous waste" under paragraph (F) of rule 3745-51-03 of the Administrative Code (i.e., debris treated by an extraction or destruction technology provided in the table in rule 3745-270-45 of the Administrative Code, and debris that the director has determined does not contain hazardous waste), however, is subject to the notification and certification requirements of paragraphs (D) to (D)(3) of this rule rather than the certification requirements of paragraphs paragraph (B)(4) to (B)(4)(e) of this rule.
- (c) For wastes with organic constituents havingthat have 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 paragraph (D) of rule 3745-270-40 of the Administrative Code, the certification, signed by an authorized representative, shall 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 the table in rule 3745-270-42 of the Administrative Code. 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."

(d) For characteristic wastes that are subject to the treatment standards in rule 3745-270-40 of the Administrative Code (other than those expressed as a method of treatment), or rule 3745-270-49 of the Administrative Code, and that contain "underlying hazardous constituents" as defined in rule 3745-270-02 of the Administrative Code, if these wastes are treated onsite to remove the hazardous characteristic, and are then sent off-site for treatment of underlying hazardous constituents, the certification shall state the following:

"I certify under penalty of law that the waste has been treated in accordance with the requirements of rule 3745-270-40 or 3745-270-49 of the Administrative Code 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."

(e) For characteristic wastes that contain "underlying hazardous constituents" as defined in rule 3745-270-02 of the Administrative Code that are treated on-site to remove the hazardous characteristic and to treat underlying hazardous constituents to levels in the table in rule 3745-270-48 of the Administrative Code, the certification shall state the following:

"I certify under penalty of law that the waste has been treated in accordance with the requirements of rule 3745-270-40 of the Administrative Code to remove the hazardous characteristic, and that "underlying hazardous constituents" as defined in rule 3745-270-02 of the Administrative Code have been treated on-site to meet the standards in the table in rule 3745-270-48 of the Administrative Code. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

(5) If the waste or treatment residue will be further managed at a different treatment, storage, or disposal facility, the treatment, storage, or disposal facility sending

- the waste or treatment residue off-site shall comply with the notice and certification requirements applicable to generators under this rule.
- (6) Where the wastes are recyclable materials used in a manner constituting disposal subject to the provisions of paragraph (B) of rule 3745-266-20 of the Administrative Code regarding treatment standards and prohibition levels, the owner or operator of a treatment facility (i.e., the recycler), for the initial shipment of waste, shall prepare a one-time certification described in paragraph (B)(4) of this rule, and a one-time notice which includes the information in paragraph (B)(3) of this rule (except the manifest number). The certification and notification shall be placed in the facility's on-site files. if If the waste or the receiving facility changes, a new certification and notification shall be prepared and placed in the on-site files. In addition, the recycling facility also shall keep records of the name and location of each entity receiving the hazardous wastederived product.
- (C) Except where the owner or operator is disposing of any waste that is a recyclable material used in a manner constituting disposal pursuant to paragraph (B) of rule 3745-266-20 of the Administrative Code, the owner or operator of any land disposal facility disposing any waste subject to restrictions under Chapter 3745-270 of the Administrative Code shall do the following:
 - (1) Have copies of the notice and certifications specified in paragraph (A) or (B) of this rule.
 - (2) Test the waste, or an extract of the waste or treatment residue developed using test method 1311 (the toxicity characteristic leaching procedure, described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," U.S. EPA publication SW-846) to assure that the wastes or treatment residues are in compliance with the applicable treatment standards set forth-in rules 3745-270-40 to 3745-270-49 of the Administrative Code. Such testing shall be performed according to the frequency specified in the facility's waste analysis plan as required by rule 3745-54-13 or 3745-65-13 of the Administrative Code.
- (D) Generators or treaters who first claim that hazardous debris is excluded from the definition of "hazardous waste" under paragraph (F) of rule 3745-51-03 of the Administrative Code (i.e., debris treated by an extraction or destruction technology provided in the table in rule 3745-270-45 of the Administrative Code, and debris that the director has determined does not contain hazardous waste) are subject to all of the following notification and certification requirements:
 - (1) A one-time notification including the following information shall be submitted to the director:

(a) The name and address of the licensed solid waste landfill receiving the treated debris.

- (b) A description of the hazardous debris as initially generated, including the applicable EPA hazardous waste numbers.
- (c) For debris excluded under paragraph (F)(1) of rule 3745-51-03 of the Administrative Code, the technology from the table in rule 3745-270-45 of the Administrative Code used to treat the debris.
- (2) The notification shall be updated if the debris is shipped to a different facility, and, for debris excluded under paragraph (F)(1) of rule 3745-51-03 of the Administrative Code, if a different type of debris is treated or if a different technology is used to treat the debris.
- (3) For debris excluded under paragraph (F)(1) of rule 3745-51-03 of the Administrative Code, the owner or operator of the treatment facility shall document and certify compliance with the treatment standards from the table in rule 3745-270-45 of the Administrative Code as follows:
 - (a) Records shall be kept of all inspections, evaluations, and analyses of treated debris that are made to determine compliance with the treatment standards.
 - (b) Records shall be kept of any data or information the treater obtains during treatment of the debris that identifies key operating parameters of the treatment unit.
 - (c) For each shipment of treated debris, a certification of compliance with the treatment standards shall be signed by an authorized representative and placed in the treatment facility's files. The certification shall state the following:
 - "I certify under penalty of law that the debris has been treated in accordance with the requirements of rule 3745-270-45 of the Administrative Code. I am aware that there are significant penalties for making a false certification, including the possibility of fine and imprisonment."
- (E) Generators and treaters who first receive from Ohio EPA a determination that a given contaminated soil subject to LDRs as provided in paragraph (A) of rule 3745-270-49 of the Administrative Code no longer contains a listed hazardous waste and generators, and treaters who first determine that a contaminated soil subject to

LDRs as provided in paragraph (A) of rule 3745-270-49 of the Administrative Code no longer exhibits a characteristic of hazardous waste, shall <u>do both of the following</u>:

- (1) Prepare a one-time only documentation of these determinations including all supporting information.
- (2) Maintain that information in the facility files and other records for a minimum of three years.

Effective: 10/5/2020

Five Year Review (FYR) Dates: Exempt

CERTIFIED ELECTRONICALLY

Certification

09/21/2020

Date

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 $12/07/2000,\, 12/07/2004,\, 09/05/2010,\, 03/17/2012,\,$

03/24/2017

DATE: 10/11/2022 11:13 AM

ACTION: Final

3745-270-09 Special rules regarding wastes that exhibit a characteristic.

- (A) The initial generator of a waste shall determine each EPA hazardous waste number applicable to the waste in order to determine the applicable treatment standards under rules 3745-270-40 to 3745-270-49 of the Administrative Code. This determination may be made concurrently with the hazardous waste determination required forin rule 3745-52-11 of the Administrative Code. For purposes of Chapter 3745-270 of the Administrative Code, the waste will carry the EPA hazardous waste number for any applicable listinglisted waste under rules 3745-51-30 to 3745-51-35 of the Administrative Code. In addition, where the waste exhibits a characteristic, the waste will carry one or more of the characteristic EPA hazardous waste numbers under rules 3745-51-20 to 3745-51-24 of the Administrative Code, except when the treatment standard for the listed waste operates in lieu of the treatment standard for the characteristic waste, as specified in paragraph (B) of this rule. If the generator determines that the generator's waste displays a hazardous characteristic (and is not D001 nonwastewater treated by CMBST, RORGS, or POLYM in the table in rule 3745-270-42 of the Administrative Code), the generator shall determine the "underlying hazardous constituents" (as defined in rule 3745-270-02 of the Administrative Code) in the characteristic waste.
- (B) Where a prohibited waste is both listed under rules 3745-51-30 to 3745-51-35 of the Administrative Code and exhibits a characteristic under rules 3745-51-20 to 3745-51-24 of the Administrative Code, the treatment standard for the EPA hazardous waste number listed in rules 3745-51-30 to 3745-51-35 of the Administrative Code will operate in lieu of the standard for the EPA hazardous waste number under rules 3745-51-20 to 3745-51-24 of the Administrative Code, 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 shall meet the treatment standards for all applicable listed and characteristic EPA hazardous waste numbers.
- (C) In addition to any applicable standards determined from the initial point of generation, no prohibited waste which exhibits a characteristic under rules 3745-51-20 to 3745-51-24 of the Administrative Code may be land disposed unless the waste complies with the treatment standards under rules 3745-270-40 to 3745-270-49 of the Administrative Code.
- (D) Wastes that exhibit a characteristic are also subject to rule 3745-270-07 of the Administrative Code, except that once the waste is no longer hazardous, a one-time notification and certification shall be placed in the generator's or treater's on-site files. The notification and certification shall be updated if the process or operation generating the waste changes or if the licensed solid waste landfill facility receiving the waste changes.

- (1) The notification shall include the following information:
 - (a) The name and address of the licensed solid waste facility receiving the waste shipment: and
 - (b) A description of the waste as initially generated, including the applicable EPA hazardous waste numbers, treatability groups, and "underlying hazardous constituents" (as defined in rule 3745-270-02 of the Administrative Code), unless the waste will be treated and monitored for all underlying hazardous constituents. If all underlying hazardous constituents will be treated and monitored, there is no requirement to list any of the underlying hazardous constituents on the notice.
- (2) The certification shall be signed by an authorized representative and shall state the language in paragraph (B)(4) of rule 3745-270-07 of the Administrative Code.
 - (a) If treatment removes the characteristic but does not meet standards applicable to underlying hazardous constituents, then the certification in paragraph (B)(4)(d) of rule 3745-270-07 of the Administrative Code applies.
 - (b) [Reserved.]

Effective: 10/23/2022

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Certification

10/11/2022

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12/07/2004, 09/05/2010, 03/24/2017

- <u>Waste specific prohibitions- dyes and/or pigments production</u> wastes.
- (A) The waste specified in Chapter 3745-51 of the Administrative Code as EPA hazardous waste number K181, and soil and debris contaminated with this waste, radioactive wastes mixed with this waste, and soil and debris contaminated with radioactive wastes mixed with this waste are prohibited from land disposal.
- (B) The requirements of paragraph (A) of this rule do not apply if:
 - (1) The wastes meet the applicable treatment standards specified in rules 3745-270-40 to 3745-270-49 of the Administrative Code;
 - (2) Persons have been granted an exemption from a prohibition pursuant to a petition under rule 3745-270-06 of the Administrative Code, with respect to those wastes and units covered by the petition;
 - (3) The wastes meet the applicable treatment standards established pursuant to a petition granted under rule 3745-270-44 of the Administrative Code;
 - (4) Hazardous debris has met the treatment standards in rule 3745-270-40 of the Administrative Code or the alternative treatment standards in rule 3745-270-45 of the Administrative Code; or
 - (5) Persons have been granted an extension to the effective date of a prohibition pursuant to rule 3745-270-05 of the Administrative Code, with respect to these wastes covered by the extension.
- (C) To determine whether a hazardous waste identified in this rule exceeds the applicable treatment standards specified in rule 3745-270-40 of the Administrative Code, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract of the waste, or the generator may use knowledge of the waste. If the waste contains regulated constituents in excess of the applicable levels in rules 3745-270-40 to 3745-270-49 of the Administrative Code, the waste is prohibited from land disposal, and all requirements of Chapter 3745-270 of the Administrative Code are applicable, except as otherwise specified.

Effective: 02/16/2009

R.C. 119.032 review dates: Exempt

CERTIFIED ELECTRONICALLY

Certification

01/13/2009

Date

Promulgated Under: 119.03 Statutory Authority: 3734.12 Rule Amplifies: 3734.12

3745-270-30 Waste specific prohibitions- wood preserving wastes.

- (A) The wastes specified in rules 3745-51-30 to 3745-51-35 of the Administrative Code as EPA hazardous waste numbers F032, F034, and F035 are prohibited from land disposal.
- (B) The following wastes are prohibited from land disposal:
 - (1) Soil and debris contaminated with F032, F034, or F035; and
 - (2) F032, F034, or F035 mixed with radioactive mixed wastes.
- (C) Reserved.
- (D) Paragraphs (A) and (B) of this rule do not apply if:
 - (1) The wastes meet the applicable treatment standards in rules 3745-270-40 to 3745-270-49 of the Administrative Code;
 - (2) Persons have been granted an exemption from a prohibition pursuant to rule 3745-270-06 of the Administrative Code with respect to those wastes and units covered by the petition;
 - (3) The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under rule 3745-270-44 of the Administrative Code; or
 - (4) Persons have been granted an extension to the effective date of a prohibition pursuant to rule 3745-270-05 of the Administrative Code with respect to those wastes covered by the extension.
- (E) To determine whether a hazardous waste identified in this rule exceeds the applicable treatment standards specified in rule 3745-270-40 of the Administrative Code, the initial generator shall 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 as concentrations in 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 in rule 3745-270-48 of the Administrative Code, the waste is prohibited from land disposal, and all requirements of Chapter 3745-270 of the Administrative Code are applicable, except as otherwise specified.

Effective: 12/07/2000

119.032 review dates: Exempt Promulgated under: 119.03 Statutory authority: 3734.12 Rule amplifies: 3734.12 Prior effective dates: None

Waste specific prohibitions- dioxin-containing wastes.

- (A) The dioxin-containing wastes specified in rule 3745-51-31 of the Administrative Code as hazardous waste numbers F020, F021, F022, F023, F026, F027, and F028 are prohibited from land disposal unless the following condition applies:
 - (1) The F020 to F023 and F026 to F028 dioxin-containing waste is contaminated soil and debris resulting from a response action taken under Section 104 or Section 106 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or a corrective action taken under subtitle C of the Resource Conservation and Recovery Act (RCRA).
 - (2) [Reserved.]
- (B) Effective November 8, 1990, the F020 to F023 and F026 to F028 dioxin-containing wastes listed in paragraph (A)(1) of this rule are prohibited from land disposal.
- (C) Between December 30, 1989 and November 8, 1990, wastes included in paragraph (A) (1) of this rule may be disposed of in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in of 40 CFR 268.5(h)(2) and all other applicable requirements of Chapters 3745-54 to 3745-57 and 3745-205 and 3745-65 to 3745-69 and 3745-256 of the Administrative Code.
- (D) The requirements of paragraphs (A) and (B) of this rule do not apply if:
 - (1) The wastes meet the standards of rules 3745-270-40 to 3745-270-49 of the Administrative Code; or
 - (2) Persons have been granted an exemption from a prohibition pursuant to a petition under rule 3745-270-06 of the Administrative Code, with respect to those wastes and units covered by the petition; or
 - (3) Persons have been granted an extension to the effective date of a prohibition pursuant to rule 3745-270-05 of the Administrative Code with respect to those wastes covered by the extension.

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, federal rules, and federal statutory provisions referenced in this rule, see rule 3745-50-11 of the Administrative Code titled "Incorporated by reference."]

Effective: 9/29/2021

Five Year Review (FYR) Dates: Exempt

CERTIFIED ELECTRONICALLY

Certification

09/14/2021

Date

Promulgated Under: 119.03 Statutory Authority: 3734.12 Rule Amplifies: 3734.12

Prior Effective Dates: 12/30/1989, 12/07/2000, 12/07/2004, 03/17/2012

<u>Waste specific prohibitions soils exhibiting the toxicity</u> characteristic for metals and containing PCBs.

- (A) The following wastes are prohibited from land disposal: Any volumes of soil exhibiting the toxicity characteristic solely because of the presence of metals (EPA hazardous waste numbers D004 to D011) and containing polychlorinated biphenyls (PCBs).
- (B) The requirements of paragraph (A) of this rule do not apply if:

<u>(1)</u>

- (a) The wastes contain halogenated organic compounds (HOCs) in total concentration less than one thousand milligrams per kilogram; and
- (b) The wastes meet the treatment standards specified in rules 3745-270-40 to 3745-270-49 of the Administrative Code for EPA hazardous waste numbers D004 to D011, as applicable; or

(2)

- (a) The wastes contain HOCs in total concentration less than one thousand milligrams per kilogram; and
- (b) The wastes meet the alternative treatment standards specified in rule 3745-270-49 of the Administrative Code for contaminated soil; or
- (3) Persons have been granted an exemption from a prohibition pursuant to a petition under rule 3745-270-06 of the Administrative Code with respect to those wastes and units covered by the petition; or
- (4) The wastes meet applicable alternative treatment standards established pursuant to a petition granted under rule 3745-270-44 of the Administrative Code.

Effective: 09/05/2010

R.C. 119.032 review dates: Exempt

CERTIFIED ELECTRONICALLY

Certification

07/23/2010

Date

Promulgated Under: 119.03 Statutory Authority: 3734.12 Rule Amplifies: 3734.12

NEW APPENDIX

1

Appendix to rule 3745-270-32 of the Administrative Code

List of Halogenated Organic Compounds (HOCs)
Regulated Under This Rule

In determining the concentration of HOCs in a hazardous waste for purposes of the land disposal prohibition in this rule, Ohio EPA has defined the HOCs that must be included in a calculation as any compounds having a carbon-halogen bond which are listed in this appendix. This includes the following compounds:

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- 1. Bromodichloromethane
- 2. Bromomethane
- 3. Carbon Tetrachloride
- 4. Chlorobenzene
- 5. 2-Chloro-1,3-butadiene
- 6. Chlorodibromomethane
- 7. Chloroethane
- 8. 2-Chloroethyl vinyl ether
- 9. Chloroform
- 10. Chloromethane
- 11. 3-Chloropropene
- 12. 1,2-Dibromo-3-chloropropane
- 13. 1,2-Dibromomethane
- 14. Dibromomethane
- 15. Trans-1,4-Dichloro-2-butene
- 16. Dichlorodifluoromethane
- 17. 1,1-Dichloroethane
- 18. 1,2-Dichloroethane

- 19. 1,1-Dichloroethylene
- 20. Trans-1,2-Dichloroethene
- 21. 1,2-Dichloropropane
- 22. Trans-1,3-Dichloropropene
- 23. cis-1,3-Dichloropropene
- 24. Iodomethane
- 25. Methylene chloride
- 26. 1,1,1,2-Tetrachloroethane
- 27. 1,1,2,2-Tetrachloroethane
- 28. Tetrachloroethene
- 29. Tribromomethane
- 30. 1,1,1-Trichloroethane
- 31. 1,1,2-Trichloroethane
- 32. Trichlorothene
- 33. Trichloromonofluoromethane
- 34. 1,2,3-Thrichloropropane
- 35. Vinyl Chloride

II. Semivolatiles

- 1. Bis(2-chloroethoxy)ethane
- 2. Bis(2-chloroethyl)ether
- 3. Bis(2-chloroisopropyl)ether
- 4. p-Chloroaniline
- 5. Chlorobenzilate
- 6. p-Chloro-m-cresol
- 7. 2-Chloronaphthalene
- 8. 2-Chlorphenol
- 9. 3-Chloropropionitrile
- 10. m-Dichlorobenzene
- 11. o-Dichlorobenzene
- 12. p-Dichlorobenzene
- 13. 3.3'-Dichlorobenzidine
- 14. 2,4-Dichlorophenol
- 15. 2,6-Dichlorophenol
- 16. Hexachlorobenzene
- 17. Hexachlorobutadiene

- 18. Hexachlorocyclopentadiene
- 19. Hexachloroethane
- 20. Hexachloroprophene
- 21. Hexachlorpropene
- 22. 4,4'-Methylenebis(2-chloroanaline)
- 23. Pentachlorobenzene
- 24. Pentachloroethane
- 25. Pentachloronitrobenzene
- 26. Pentachlorophenol
- 27. Pronamide
- 28. 1,2,4,5-Tetrachlorobenzene
- 29. 2,3,4,6-Tetrachlorophenol
- 30. 1,2,4-Trichlorobenzene
- 31. 2,4,5-Trichlorophenol
- 32. 2,4,6-Trichlorophenol
- 33. Tris(2,3-dibromopropyl)phosphate

III. Organochlorine Pesticides

- 1. Aldrin
- 2. alpha-BHC
- 3. beta-BHC
- 4. delta-BHC
- 5. gamma-BHC
- 6. Chlorodane
- 7. DDD
- 8. DDE
- 9. DDT
- 10. Dieldrin

- 11. Endosulfan I
- 12. Endosulfan II
- 13. Endrin
- 14. Endrin aldehyde
- 15. Heptachlor
- 16. Heptachlor epoxide
- 17. Isodrin
- 18. Kepone
- 19. Methoxyclor
- 20. Toxaphene

IV. Phenoxyacetic Acid Herbicides

- 1. 2,4-Dichlorophenoxyacetic acid
- 2. Silvex
- 3. 2,4,5-T

V. Polychlorinated biphenyls (PCBs)

- 1. Aroclor 1016
- 2. Aroclor 1221
- 3. Aroclor 1232
- 4. Aroclor 1242

- 5. Aroclor 1248
- 6. Aroclor 1254
- 7. Aroclor 1260
- 8. PCBs not otherwise specified

VI. Dioxins and Furans

- 1. Hexachlorodibenzo-p-dioxins
- 2. Hexachlorodibenzofuran
- 3. Pentachlorodibenzo-p-dioxins
- 4. Pentachlorodibenzofuran

- 5. Tetrachlorodibenzo-p-dioxins
- 6. Tetrachlorodibenzofuran
- 7. 2,3,7,8-Tetrachlorodibenzo-p-dioxin

3745-270-33 Waste specific prohibitions- chlorinated aliphatic wastes.

(A) The wastes specified in Chapter 3745-51 of the Administrative Code as EPA hazardous wastes numbers K174 and K175, soil and debris contaminated with these wastes, radioactive wastes mixed with these wastes, and soil and debris contaminated with radioactive wastes mixed with these wastes are prohibited from land disposal.

- (B) The requirements of paragraph (A) of this rule do not apply if:
 - (1) The wastes meet the applicable treatment standards specified in rules 3745-270-40 to 3745-270-49 of the Administrative Code;
 - (2) Persons have been granted an exemption from a prohibition pursuant to a petition under rule 3745-270-06 of the Administrative Code, with respect to those wastes and units covered by the petition;
 - (3) The wastes meet the applicable treatment standards established pursuant to a petition granted under rule 3745-270-44 of the Administrative Code;
 - (4) Hazardous debris has met the treatment standards in rule 3745-270-40 of the Administrative Code or the alternative treatment standards in rule 3745-270-45 of the Administrative Code; or
 - (5) Persons have been granted an extension to the effective date of a prohibition pursuant to rule 3745-270-05 of the Administrative Code, with respect to those wastes covered by the extension.
- (C) To determine whether a hazardous waste identified in this rule exceeds the applicable treatment standards specified in rule 3745-270-40 of the Administrative Code, 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 rules 3745-270-40 to 3745-270-49 of the Administrative Code, the waste is prohibited from land disposal, and all requirements of Chapter 3745-270 of the Administrative Code are applicable, except as otherwise specified.
- (D) Disposal of K175 wastes that have complied with all applicable treatment standards in rule 3745-270-40 of the Administrative Code must also be macroencapsulated in accordance with the table in rule 3745-270-40 of the Administrative Code unless the waste is placed in:
 - (1) A permitted hazardous waste landfill containing only K175 wastes that meet all applicable treatment standards in rule 3745-270-40 of the Administrative Code; or
 - (2) A dedicated permitted hazardous waste landfill cell in which all other wastes being co-disposed are at pH 6.0.

Effective: 12/07/2004

119.032 review date: Exempt Promulgated under: 119.03 Statutory authority: 3734.12 Rule amplifies: 3734.12 Prior effective dates: None

3745-270-34 Waste specific prohibitions- toxicity characteristic metal wastes.

(A) The following wastes are prohibited from land disposal: the wastes specified in Chapter 3745-51 of the Administrative Code as EPA hazardous waste numbers D004 to D011 that are newly identified (i.e. wastes, soil, or debris identified as hazardous by the toxic characteristic leaching procedure but not the extraction procedure), and waste, soil, or debris from mineral processing operations that is identified as hazardous by the specifications in Chapter 3745-51 of the Administrative Code.

- (B) The following waste is prohibited from land disposal: slag from secondary lead smelting which exhibits the toxicity characteristic due to the presence of one or more metals.
- (C) The following wastes are prohibited from land disposal: newly identified characteristic wastes from elemental phosphorus processing; radioactive wastes mixed with EPA hazardous wastes D004 to D011 that are newly identified (i.e. wastes, soil, or debris identified as hazardous by the toxic characteristic leaching procedure but not the extraction procedure); or mixed with newly identified characteristic mineral processing wastes, soil, or debris.
- (D) Reserved.
- (E) The requirements of paragraphs (A) and (C) of this rule do not apply if:
 - (1) The wastes meet the applicable treatment standards specified in rules 3745-270-40 to 3745-270-49 of the Administrative Code;
 - (2) Persons have been granted an exemption from a prohibition pursuant to a petition under rule 3745-270-06 of the Administrative Code, with respect to those wastes and units covered by the petition;
 - (3) The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under rule 3745-270-44 of the Administrative Code; or
 - (4) Persons have been granted an extension to the effective date of a prohibition pursuant to rule 3745-270-05 of the Administrative Code, with respect to these wastes covered by the extension.

(F) To determine whether a hazardous waste identified in this rule exceeds the applicable treatment standards specified in rule 3745-270-40 of the Administrative Code, the initial generator shall 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 in 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 in rule 3745-270-48 of the Administrative Code, the waste is prohibited from land disposal, and all requirements of Chapter 3745-270 of the Administrative Code are applicable, except as otherwise specified.

Effective: 12/07/2000

119.032 review date: Exempt Promulgated under: 119.03 Statutory authority: 3734.12 Rule amplifies: 3734.12 Prior effective dates: None

3745-270-35 Waste-specific prohibitions- petroleum refining wastes.

- (A) The wastes specified in Chapter 3745-51 of the Administrative Code as EPA hazardous wastes numbers K169, K170, K171, and K172, soils and debris contaminated with these wastes, radioactive wastes mixed with these hazardous wastes, and soils and debris contaminated with these radioactive mixed wastes, are prohibited from land disposal.
- (B) The requirements of paragraph (A) of this rule do not apply if:
 - (1) The wastes meet the applicable treatment standards specified in rules 3745-270-40 to 3745-270-49 of the Administrative Code;
 - (2) Persons have been granted an exemption from a prohibition pursuant to a petition under rule 3745-270-06 of the Administrative Code, with respect to those wastes and units covered by the petition;
 - (3) The wastes meet the applicable treatment standards established pursuant to a petition granted under rule 3745-270-44 of the Administrative Code;
 - (4) Hazardous debris that has met treatment standards in rule 3745-270-40 of the Administrative Code or in the alternative treatment standards in rule 3745-270-45 of the Administrative Code; or
 - (5) Persons have been granted an extension to the effective date of a prohibition pursuant to rule 3745-270-05 of the Administrative Code, with respect to these wastes covered by the extension.
- (C) To determine whether a hazardous waste identified in this rule exceeds the applicable treatment standards specified in rule 3745-270-40 of the Administrative Code, the initial generator shall 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 rule 3745-270-48 of the Administrative Code, the waste is prohibited from land disposal, and all requirements of Chapter 3745-270 of the Administrative Code are applicable, except as otherwise specified.

Effective: 12/07/2000

119.032 review date: Exempt Promulgated under: 119.03 Statutory authority: 3734.12 Rule amplifies: 3734.12 Prior effective dates: None

3745-270-36 Waste specific prohibitions- inorganic chemical wastes.

- (A) The wastes specified in Chapter 3745-51 of the Administrative Code as EPA 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.
- (B) The requirements of paragraph (A) of this rule do not apply if:
 - (1) The wastes meet the applicable treatment standards specified in rules 3745-270-40 to 3745-270-49 of the Administrative Code;
 - (2) Persons have been granted an exemption from a prohibition pursuant to a petition under rule 3745-270-06 of the Administrative Code, with respect to those wastes and units covered by the petition;
 - (3) The wastes meet the applicable treatment standards established pursuant to a petition granted under rule 3745-270-44 of the Administrative Code;
 - (4) Hazardous debris has met the treatment standards in rule 3745-270-40 of the Administrative Code or the alternative treatment standards in rule 3745-270-45 of the Administrative Code; or
 - (5) Persons have been granted an extension to the effective date of a prohibition pursuant to rule 3745-270-05 of the Administrative Code, with respect to those wastes covered by the extension.
- (C) To determine whether a hazardous waste identified in this rule exceeds the applicable treatment standards specified in rule 3745-270-40 of the Administrative Code, 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 specified in rules 3745-270-40 to 3745-270-49 of the Administrative Code, the waste is prohibited from land disposal, and all requirements of Chapter 3745-270 of the Administrative Code are applicable, except as otherwise specified.

Effective: 12/07/2004

119.032 review dates: Exempt Promulgated under: 119.03 Statutory authority: 3734.12 Rule amplifies: 3734.12 Prior effective dates: None

3745-270-37 Waste specific prohibitions- ignitable and corrosive characteristic wastes whose treatment standards were vacated.

- (A) The wastes specified in rule 3745-51-21 of the Administrative Code as D001 (and is not in the high TOC ignitable liquids subcategory), and specified in in rule 3745-51-22 of the Administrative Code as D002, that are managed in systems other than those whose discharge is regulated under the clean water act (CWA), or that inject in Class I deep wells regulated under the safe drinking water act, or that are zero dischargers that engage in CWA-equivalent treatment before ultimate land disposal, are prohibited from land disposal. CWA-equivalent treatment means biological treatment for organics, alkaline chlorination or ferrous sulfate precipitation for cyanide, precipitation/sedimentation for metals, reduction of hexavalent chromium, or other treatment technology that can be demonstrated to perform equally or greater than these technologies.
- (B) The wastes specified in rule 3745-51-21 of the Administrative Code as D001 (and is not in the high TOC ignitable liquids subcategory), and specified in rule 3745-51-22 of the Administrative Code as D002, that are managed in systems defined in 40 CFR 144.6(e) and 146.6(e) As Class V injection wells, that do not engage in CWA-equivalent treatment before injection, are prohibited from land disposal.

Effective: 12/07/2000

119.032 review dates: Exempt Promulgated under: 119.03 Statutory authority: 3734.12 Rule amplifies: 3734.12 Prior effective dates: None **ACTION:** Final

3745-270-38

Waste specific prohibitions- newly identified organic toxicity characteristic wastes and newly listed coke by-product and chlorotoluene production wastes.

(A) Prohibited from land disposal.

- (1) The wastes specified in rule 3745-51-32 of the Administrative Code as EPA hazardous waste numbers K141, K142, K143, K144, K145, K147, K148, K149, K150, and K151 are prohibited from land disposal.
- (2) Debris contaminated with EPA hazardous waste numbers F037, F038, K107 to K112, K117, K118, K123 to K126, K131, K132, K136, U328, U353, U359, and soil and debris contaminated with D012 to D043, K141 to K145, and K147 to K151 are prohibited from land disposal.
- (3) The following wastes that are specified in Table 1 of the table in rule 3745-51-24 of the Administrative Code as EPA hazardous waste numbers: D012, D013, D014, D015, D016, D017, D018, D019, D020, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D031, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043 that are not radioactive, or that are managed in systems other than those whose discharge is regulated under the elean water actClean Water Act (CWA), or that are zero dischargers that do not engage in CWA-equivalent treatment before ultimate land disposal, or that are injected in "Class I" deep wells regulated under the safe drinking water actSafe Drinking Water Act (SDWA), are prohibited from land disposal. CWA-equivalent treatment means biological treatment for organics, alkaline chlorination or ferrous sulfate precipitation for cyanide, precipitation/sedimentation for metals, reduction of hexavalent chromium, or other treatment technology that can be demonstrated to perform equally or better than these technologies.

(B) Radioactive waste prohibitions.

(1) Radioactive wastes that are mixed with D018 to D043 wastes that are managed in systems other than those whose discharge is regulated under the CWA, or that inject in "Class I" deep wells regulated under the SDWA, or that are zero dischargers that engage in CWA-equivalent treatment before ultimate land disposal, are prohibited from land disposal. CWA-equivalent treatment means biological treatment for organics, alkaline chlorination or ferrous sulfate precipitation for cyanide, precipitation/sedimentation for metals, reduction of hexavalent chromium, or other treatment technology that can be demonstrated to perform equally or greater than these technologies.

(2) Radioactive wastes mixed with K141 to K145 wastes, and K147 to K151 wastes are also prohibited from land disposal.

- (3) Soil and debris contaminated with the radioactive mixed wastes indicated in paragraphs (B)(1) and (B)(2) of this rule are prohibited from land disposal.
- (C) Reserved.
- (D) The requirements of paragraphs Paragraphs (A), (B), and (C) of this rule do not apply if:
 - (1) The wastes meet the applicable treatment standards specified in rules 3745-270-40 to 3745-270-49 of the Administrative Code;
 - (2) Persons have been granted an exemption from a prohibition pursuant to a petition under rule 3745-270-06 of the Administrative Code, with respect to those wastes and units covered by the petition.
 - (3) The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under rule 3745-270-44 of the Administrative Code;
 - (4) Persons have been granted an extension to the effective date of a prohibition pursuant to rule 3745-270-05 of the Administrative Code, with respect to these wastes covered by the extension.
- (E) To determine whether a hazardous waste identified in this rule exceeds the applicable treatment standards specified in rule 3745-270-40 of the Administrative Code, the initial generator shall 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 in rules 3745-270-40 to 3745-270-49 of the Administrative Code, the waste is prohibited from land disposal, and all requirements of Chapter 3745-270 of the Administrative Code are applicable, except as otherwise specified.

Effective: 10/31/2015

Five Year Review (FYR) Dates: Exempt

CERTIFIED ELECTRONICALLY

Certification

10/07/2015

Date

Promulgated Under: 119.03 Statutory Authority: 3734.12 Rule Amplifies: 3734.12 Prior Effective Dates: 12/07/2000

3745-270-39 Waste specific prohibitions- spent aluminum potliners, reactive wastes, and carbamate wastes.

(A) The wastes specified in rule 3745-51-32 of the Administrative Code as EPA hazardous waste numbers K156 to K159, and K161, and in rule 3745-51-33 of the Administrative Code as EPA hazardous waste numbers P127, P128, P185, P188 to P192, P194, P196 to P199, P201 to P205, U271, U278 to U280, U364, U367, U372, U373, U387, U389, U394, U395, U404, and U409 to U411, are prohibited from land disposal. In addition, soil and debris contaminated with these wastes are prohibited from land disposal.

- (B) The wastes identified in rule 3745-51-23 of the Administrative Code as D003 that are managed in systems other than those whose discharge is regulated under the clean water act (CWA), or that inject in Class I deep wells regulated under the safe drinking water act (SDWA), or that are zero dischargers that engage in CWA-equivalent treatment before ultimate land disposal, are prohibited from land disposal. This prohibition does not apply to unexploded ordnance and other explosive devices which have been the subject of an emergency response. [Such D003 wastes are prohibited unless they meet the treatment standard of DEACT before land disposal (see rule 3745-270-40 of the Administrative Code)].
- (C) The wastes specified in rule 3745-51-32 of the Administrative Code as EPA hazardous waste number K088 are prohibited from land disposal. In addition, soil and debris contaminated with these wastes are prohibited from land disposal.
- (D) Radioactive wastes mixed with K088, K156 to K159, K161, P127, P128, P185, P188 to P192, P194, P196 to P199, P201 to P205, U271, U278 to U280, U364, U367, U372, U373, U387, U389, U394, U395, U404, and U409 to U411 are also prohibited from land disposal. In addition, soil and debris contaminated with these radioactive mixed wastes are prohibited from land disposal.
- (E) Reserved.
- (F) The requirements of paragraphs (A), (B), (C), and (D) of this rule do not apply if:
 - (1) The wastes meet the applicable treatment standards specified in rules 3745-270-40 to 3745-270-49 of the Administrative Code;
 - (2) Persons have been granted an exemption from a prohibition pursuant to a petition under rule 3745-270-06 of the Administrative Code with respect to those wastes and units covered by the petition;
 - (3) The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under rule 3745-270-44 of the Administrative Code;
 - (4) Persons have been granted an extension to the effective date of a prohibition pursuant to rule 3745-270-05 of the Administrative Code with respect to these wastes covered by the extension.

(G) To determine whether a hazardous waste identified in this rule exceeds the applicable treatment standards specified in rule 3745-270-40 of the Administrative Code, the initial generator shall 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 in rules 3745-270-40 to 3745-270-49 of the Administrative Code, the waste is prohibited from land disposal, and all requirements of Chapter 3745-270 of the Administrative Code are applicable, except as otherwise specified.

Effective: 12/07/2000

119.032 review dates: Exempt Promulgated under: 119.03 Statutory authority: 3734.12 Rule amplifies: 3734.12 Prior effective dates: None

3745-270-40 Applicability- treatment standards.

- (A) A prohibited waste identified in the table in this rule "Treatment Standards for Hazardous Waste" may be land disposed only if the prohibited waste meets the requirements in the table in this rule. For each waste, the table in this rule identifies one of three types of treatment standard requirements:
 - (1) All hazardous constituents in the waste or in the treatment residue shall be at or below the values in the table in this rule for that waste ("total waste standards").
 - (2) The hazardous constituents in the extract of the waste or in the extract of the treatment residue shall be at or below the values in the table in this rule ("waste extract standards").
 - (3) The waste shall be treated using the technology specified in the table in this rule ("technology standard"), which are described in detail in the table in rule 3745-270-42 of the Administrative Code.

(B) For:

- (1) Wastewaters, compliance with concentration level standards is based on maximums for any one day, except for D004 to D011 wastes for which the previously promulgated treatment standards based on grab samples remain in effect.
- (2) All nonwastewaters, compliance with concentration level standards is based on grab sampling.
- (3) Wastes covered by the waste extract standards, the test method 1311, the toxicity characteristic leaching procedure in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," U.S. EPA publication SW-846, shall be used to measure compliance. An exception is made for D004 and D008, for which either of two test methods may be used: method 1311, or method 1310B, the extraction procedure toxicity test.
- (4) 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 director under the procedures in paragraph (B) of rule 3745-270-42 of the Administrative Code.
- (C) When wastes with differing treatment standards for a constituent of concern are combined for purposes of treatment, the treatment residue shall meet the lowest treatment standard for the constituent of concern.

- (D) Notwithstanding the prohibitions specified in paragraph (A) of this rule, treatment and disposal facilities may demonstrate [and certify pursuant to paragraph (B)(5) of rule 3745-270-07 of the Administrative Code] compliance with the treatment standards for organic constituents specified by a footnote in the table in this rule, provided all of the following conditions are satisfied:
 - (1) The treatment standards for the organic constituents were established based on incineration in units operated in accordance with the technical requirements of rules 3745-57-40 to 3745-57-51 of the Administrative Code, or based on combustion in fuel substitution units operating in accordance with applicable technical requirements in the hazardous waste rules.
 - (2) The treatment or disposal facility has used the methods referenced in paragraph (D)(1) of this rule to treat the organic constituents.
 - (3) The treatment or disposal facility may demonstrate compliance with organic constituents if good-faith analytical efforts achieve detection limits for the regulated organic constituents that do not exceed by an order of magnitude the treatment standards specified in this rule.
- (E) For characteristic waste (D001 to D043) that are subject to treatment standards in the table in this rule, and are not managed in a wastewater treatment system that is regulated under the Clean Water Act (CWA), that is CWA-equivalent, or that is injected into a "Class I" nonhazardous deep injection well, all "underlying hazardous constituents" (as defined in rule 3745-270-02 of the Administrative Code) shall meet universal treatment standards in the table in rule 3745-270-48 of the Administrative Code prior to "land disposal" (as defined in rule 3745-270-02 of the Administrative Code).
- (F) The treatment standards for F001 to 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. If the waste contains any of these three constituents along with any of the other twenty-five constituents in F001 to F005, then compliance with treatment standards for carbon disulfide, cyclohexanone, or methanol is not required.
- (G) [Reserved.]
- (H) Prohibited D004 to D011 mixed radioactive wastes and mixed radioactive listed wastes containing metal constituents that were previously treated by stabilization to the treatment standards in effect at that time and then put into storage do not have to be re-treated to meet treatment standards in this rule prior to land disposal.
- (I) [Reserved.]

(J) The treatment standards for the wastes specified in rule 3745-51-33 of the Administrative Code as EPA hazardous waste numbers P185, P191, P192, P197, U364, U394, and U395 may be satisfied by either meeting the constituent concentrations presented in the table in this rule, or by treating the waste by the following technologies: combustion, as described by the technology code CMBST in the table in rule 3745-270-42 of the Administrative Code, for nonwastewaters; and, biodegradation as described by the technology code BIODG, carbon adsorption as described by the technology code CARBN, chemical oxidation as described by the technology code CHOXD, or combustion as described as technology code CMBST in the table in rule 3745-270-42 of the Administrative Code, for wastewaters.

Table: Treatment Standards for Hazardous Wastes

The treatment standards that previously appeared in tables in rules 3745–59–41, 3745–59–42, and 3745–59–43 of the Administrative Code have been consolidated into this table.

	Regulated hazardous constituen		onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
D001 ⁹	Ignitable characteristic wastes, except for the paragraph (A)(1) of rule 3745-51-21 of the Administrative Code. "High total organic constituents (TOC) subcategory"	NA	NA	DEACT and meet standards in rule 3745-270-48 of the Administrative Code ⁸ ; or RORGS; or CMBST	DEACT and meet standards in rule 3745-270-48 of the Administrative Code ⁸ ; or RORGS; or CMBST
	High TOC ignitable characteristic liquids subcategory based on paragraph (A)(1) of rule 3745-51-21 of the Administrative Code- greater than or equal to ten per cent total organic carbon. (Comment: This subcategory consists of nonwastewaters only.)	NA	NA	NA	RORGS; CMBST; or POLYM
D002 ⁹	Corrosive characteristic wastes.	NA	NA	DEACT and meet standards in rule 3745-270-48 of the Administrative Code ⁸	DEACT and meet standards in rule 3745-270-48 of the Administrative Code ⁸

		Regulated hazardous constituent		Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
D002,	Radioactive high level wastes	Corrosivity (pH)	NA	NA	HLVIT
D004,	generated during the	Arsenic	7440-38-2	NA	HLVIT
D005,	reprocessing of fuel rods.	Barium	7440-39-3	NA	HLVIT
D006,	(Comment: This subcategory	Cadmium	7440-43-9	NA	HLVIT
D007,	consists of nonwastewaters only.)	Chromium (total)	7440-47-3	NA	HLVIT
D008,		Lead	7439-92-1	NA	HLVIT
D009,		Mercury	7439-97-6	NA	HLVIT
D010, D011		Selenium	7782-49-2	NA	HLVIT
		Silver	7440-22-4	NA	HLVIT
D003 9	Reactive sulfides subcategory based on paragraph (A)(5) of rule 3745-51-23 of the Administrative Code.	NA	NA	DEACT	DEACT
	Explosives subcategory based on paragraphs (A)(6), (A)(7), and (A)(8) of rule 3745-51-23 of the Administrative Code.	NA	NA	DEACT and meet standards in rule 3745-270-48 of the Administrative Code ⁸	DEACT and meet standards in rule 3745-270-48 of the Administrative Code ⁸
	Unexploded ordnance and other explosive devices which have been the subject of an emergency response.	NA	NA	DEACT	DEACT

		Regulated hazardous c	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
	Other reactives subcategory based on paragraph (A)(1) of rule 3745-51-23 of the Administrative Code.	NA	NA	DEACT and meet standards in rule 3745-270-48 of the Administrative Code ⁸	DEACT and meet standards in rule 3745-270-48 of the Administrative Code ⁸
	Water reactive subcategory based on paragraphs (A)(2), (A)(3), and (A)(4) of rule 3745-51-23 of the Administrative Code. (Comment: This subcategory consists of nonwastewaters only.)		NA	NA	DEACT and meet standards in rule 3745-270-48 of the Administrative Code ⁸
	Reactive cyanides subcategory based on paragraph (A)(5) of rule	Cyanides (total) ⁷	57-12-5	Reserved	590.0
	3745-51-23 of the Administrative Code.	Cyanides (amenable) ⁷	57-12-5	0.86	30.0
D004 9	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for arsenic based on the toxicity characteristic leaching procedure (TCLP) in SW-846.	Arsenic	7440-38-2	1.4 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	5.0 mg/L TCLP and meet standards in rule 3745-270-48 of the Administrative Code ⁸

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
D005 9	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for barium based on the extraction procedure (EP) in SW-846.	Barium	7440-39-3	1.2 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	21 mg/L TCLP and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D006 9	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for cadmium based on the TCLP in SW-846.	Cadmium	7440-43-9	0.69 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	0.11 mg/L TCLP and meet standards in rule 3745-270-48 of the Administrative Code ⁸
	Cadmium containing-batteries subcategory. (Comment: This subcategory consists of nonwastewaters only.)	Cadmium	7440-43-9	NA	RTHRM
	Radioactively contaminated cadmium-containing batteries. (Comment: This subcategory consists of nonwastewaters only.)	Cadmium	7440-43-9	NA	Macroencapsulation in accordance with rule 3745-270-45 of the Administrative Code
D007 ⁹	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for chromium based on the TCLP in SW-846.	Chromium (total)	7440-47-3	2.77 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	0.6 mg/L TCLP and meet standards in rule 3745-270-48 of the Administrative Code ⁸

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
D008 9	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for lead based on the TCLP in SW-846.	Lead	7439-92-1	0.69 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	0.75 mg/L TCLP and meet standards in rule 3745-270-48 of the Administrative Code ⁸
	Lead acid batteries subcategory. [Comment: This standard only applies to lead acid batteries that are identified as RCRA hazardous wastes and that are not excluded elsewhere from regulation under Chapter 3745-270 of the Administrative Code or exempted under other rules (see rule 3745-266-80 of the Administrative Code). This subcategory consists of nonwastewaters only.]	Lead	7439-92-1	NA	RLEAD

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ²	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
	Radioactive lead solids subcategory. [Comment: These lead solids include, but are not limited to, all forms of lead shielding and other elemental forms of lead. These lead solids do not include treatment residuals such as hydroxide sludges, other wastewater treatment residuals, or incinerator ashes that can undergo conventional pozzolanic stabilization, nor do they include organo-lead materials that can be incinerated and stabilized as ash. This subcategory consists of nonwastewaters only.]	Lead	7439-92-1	NA	MACRO

		Regulated hazardous constituent		Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
D009 ⁹	Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the TCLP in SW-846; and contain greater than or equal to 260.0 mg/kg total mercury that also contains organics and are not incinerator residues. (High mercury- organic subcategory)	Mercury	7439-97-6	NA	IMERC; or RMERC
	Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the TCLP in SW-846; and contain greater than or equal to 260.0 mg/kg total mercury that are inorganic, including incinerator residues and residues from RMERC. (High mercury-inorganic subcategory)		7439-97-6	NA	RMERC

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
	Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the TCLP in SW-846; and contain less than 260.0 mg/kg total mercury and that are residues from RMERC only. (Low mercury subcategory)	Mercury	7439-97-6	NA	0.2 mg/L TCLP and meet standards in rule 3745-270-48 of the Administrative Code ⁸
	All other nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the TCLP in SW-846; and contain less than 260.0 mg/kg total mercury and that are not residues from RMERC. (Low mercury subcategory)	Mercury	7439-97-6	NA	0.025 mg/L TCLP and meet standards in rule 3745-270-48 of the Administrative Code ⁸
	All D009 wastewaters	Mercury	7439-97-6	0.15 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	NA
	Elemental mercury contaminated with radioactive materials. (Comment: This subcategory consists of nonwastewaters only.)	Mercury	7439-97-6	NA	AMLGM

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ²	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
	Hydraulic oil contaminated with mercury radioactive materials subcategory. (Comment: This subcategory consists of nonwastewaters only.)	Mercury	7439-97-6	NA	IMERC
	Radioactively contaminated mercury-containing batteries. (Comment: This subcategory consists of nonwastewaters only.)	Mercury	7439-97-6	NA	Macroencapsulation in accordance with rule 3745-270-45 of the Administrative Code
D010 ⁹	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for selenium based on the TCLP in SW-846.	Selenium	7782-49-2	0.82 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	5.7 mg/L TCLP and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D011 9	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for silver based on the TCLP in SW-846.	Silver	7440-22-4	0.43 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	0.14 mg/L TCLP and meet standards in rule 3745-270-48 of the Administrative Code ⁸
	Radioactively contaminated silver-containing batteries. (Comment: This subcategory consists of nonwastewaters only.)	Silver	7440-22-4	NA	Macroencapsulation in accordance with rule 3745-270-45 of the Administrative Code

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
D012 9	Wastes that are TC for Endrin based on the TCLP in SW-846 method 1311.	Endrin	72-20-8	BIODG; or CMBST	0.13 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
		Endrin aldehyde	7421-93-4	BIODG; or CMBST	0.13 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D013 9	Wastes that are TC for Lindane based on the TCLP in SW-846 method 1311.	alpha-BHC	319-84-6	CARBN; or CMBST	0.066 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
		beta-BHC	319-85-7	CARBN; or CMBST	0.066 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
		delta-BHC	319-86-8	CARBN; or CMBST	0.066 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
		gamma-BHC (Lindane)	58-89-9	CARBN; or CMBST	0.066 and meet standards in rule 3745-270-48 of the Administrative Code ⁸

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
D014 9	Wastes that are TC for Methoxychlor based on the TCLP in SW-846 method 1311.	Methoxychlor	72-43-5	WETOX or CMBST	0.18 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D015 9	Wastes that are TC for Toxaphene based on the TCLP in SW-846 method 1311.	Toxaphene	8001-35-2	BIODG or CMBST	2.6 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D0169	Wastes that are TC for 2,4-D (2,4-Dichlorophenoxyacetic acid) based on the TCLP in SW-846 method 1311.	2,4-D (2,4- Dichlorophenoxyacetic acid)	94-75-7	CHOXD, BIODG, or CMBST	10.0 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D017 ⁹	Wastes that are TC for 2,4,5-TP (Silvex) based on the TCLP in SW-846 method 1311.	2,4,5-TP (Silvex)	93-72-1	CHOXD or CMBST	7.9 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D018 9	Wastes that are TC for Benzene based on the TCLP in SW-846 method 1311.	Benzene	71-43-2	0.14 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	10.0 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D019 ⁹	Wastes that are TC for Carbon tetrachloride based on the TCLP in SW-846 method 1311.	Carbon tetrachloride	56-23-5	0.057 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	6.0 and meet standards in rule 3745-270-48 of the Administrative Code ⁸

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
D020 9	Wastes that are TC for Chlordane based on the TCLP in SW-846 method 1311.	Chlordane (alpha and gamma isomers)	57-74-9	0.0033 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	0.26 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D021 9	Wastes that are TC for Chlorobenzene based on the TCLP in SW-846 method 1311.	Chlorobenzene	108-90-7	0.057 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	6.0 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D022 9	Wastes that are TC for Chloroform based on the TCLP in SW-846 method 1311.	Chloroform	67-66-3	0.046 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	6.0 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D023 9	Wastes that are TC for o-Cresol based on the TCLP in SW-846 method 1311.	o-Cresol	95-48-7	0.11 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	5.6 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D024 ⁹	Wastes that are TC for m-Cresol based on the TCLP in SW-846 method 1311.	m-Cresol (difficult to distinguish from p-Cresol)	108-39-4	0.77 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	5.6 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D025 9	Wastes that are TC for p-Cresol based on the TCLP in SW-846 method 1311.	p-Cresol (difficult to distinguish from m-Cresol)	106-44-5	0.77 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	5.6 and meet standards in rule 3745-270-48 of the Administrative Code ⁸

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
D026 9	Wastes that are TC for Cresols (total) based on the TCLP in SW-846 method 1311.	Cresol- mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)	1319-77-3	0.88 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	11.2 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D027 9	Wastes that are TC for p-Dichlorobenzene based on the TCLP in SW-846 method 1311.	p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	0.09 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	6.0 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D028 9	Wastes that are TC for (1,2-Dichloroethane) based on the TCLP in SW-846 method 1311.	(1,2-Dichloroethane)	107-06-2	0.21 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	6.0 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D029 9	Wastes that are TC for 1,1-Dichloroethylene based on the TCLP in SW-846 method 1311.	1,1-Dichloroethylene	75-35-4	0.025 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	6.0 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D030 9	Wastes that are TC for 2,4-Dinitrotoluene based on the TCLP in SW-846 method 1311.	2,4-Dinitrotoluene	121-14-2	0.32 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	140.0 and meet standards in rule 3745-270-48 of the Administrative Code ⁸

		Regulated hazardous c	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
D031 9	Wastes that are TC for Heptachlor based on the TCLP in SW-846 method 1311.	Heptachlor	76-44-8	0.0012 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	0.066 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
		Heptachlor epoxide	1024-57-3	0.016 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	0.066 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D032 9	Wastes that are TC for Hexachlorobenzene based on the TCLP in SW-846 method 1311.	Hexachlorobenzene	118-74-1	0.055 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	10.0 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D033 9	Wastes that are TC for Hexachlorobutadiene based on the TCLP in SW-846 method 1311.	Hexachlorobutadiene	87-68-3	0.055 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	5.6 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D034 9	Wastes that are TC for Hexachloroethane based on the TCLP in SW-846 method 1311.	Hexachloroethane	67-72-1	0.055 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	30.0 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D035 9	Wastes that are TC for Methyl ethyl ketone based on the TCLP in SW-846 method 1311.	Methyl ethyl ketone	78-93-3	0.28 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	36.0 and meet standards in rule 3745-270-48 of the Administrative Code ⁸

		Regulated hazardous c	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
D036 9	Wastes that are TC for Nitrobenzene based on the TCLP in SW-846 method 1311.	Nitrobenzene	98-95-3	0.068 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	14.0 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D037 9	Wastes that are TC for Pentachlorophenol based on the TCLP in SW-846 method 1311.	Pentachlorophenol	87-86-5	0.089 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	7.4 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D038 9	Wastes that are TC for Pyridine based on the TCLP in SW-846 method 1311.	Pyridine	110-86-1	0.014 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	16.0 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D039 9	Wastes that are TC for Tetrachloroethylene based on the TCLP in SW-846 method 1311.	Tetrachloroethylene	127-18-4	0.056 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	6.0 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D040 9	Wastes that are TC for Trichloroethylene based on the TCLP in SW-846 method 1311.	Trichloroethylene	79-01-6	0.054 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	6.0 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D041 ⁹	Wastes that are TC for 2,4,5-Triclorophenol based on the TCLP in SW-846 method 1311.	2,4,5-Triclorophenol	95-95-4	0.18 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	7.4 and meet standards in rule 3745-270-48 of the Administrative Code ⁸

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste	Waste description and treatment	C	CAS ²	Concentration ³ in mg/L; or technology	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or
number	or regulatory subcategory ¹	Common name	number	code ⁴	technology code ⁴
D042 ⁹	Wastes that are TC for 2,4,6-Trichlorophenol based on the TCLP in SW-846 method 1311.	2,4,6-Trichlorophenol	88-06-2	0.035 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	7.4 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
D043 9	Wastes that are TC for Vinyl chloride based on the TCLP in SW-846 method 1311.	Vinyl chloride	75-01-4	0.27 and meet standards in rule 3745-270-48 of the Administrative Code ⁸	6.0 and meet standards in rule 3745-270-48 of the Administrative Code ⁸
F001, F002,	F001, F002, F003, F004, or F005	Acetone	67-64-1	0.28	160.0
F003, F004 <u>,</u>	solvent wastes that contain any	Benzene	71-43-2	0.14	10.0
and F005	combination of one or more	n-Butyl alcohol	71-36-3	5.6	2.6
	of the following spent solvents:	Carbon disulfide	75-15-0	3.8	NA
	acetone, benzene, n-butyl	Carbon tetrachloride	56-23-5	0.057	6.0
	alcohol, carbon disulfide, carbon	Chlorobenzene	108-90-7	0.057	6.0
	tetrachloride, chlorinated	o-Cresol	95-48-7	0.11	5.6
	fluorocarbons, chlorobenzene, o-cresol, m-cresol, p-cresol, cyclohexanone,	m-Cresol (difficult to distinguish from p-Cresol)	108-39-4	0.77	5.6
	o-dichlorobenzene, 2-ethoxyethanol, ethyl acetate, ethyl benzene, ethyl ether,	p-Cresol (difficult to distinguish from m-Cresol)	106-44-5	0.77	5.6

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
	isobutyl alcohol, methanol,	Cresol- mixed isomers	1319-77-3	0.88	11.2
	eyclohexanone,	(Cresylic acid) (sum of o-,			
	o dichlorobenzene, 2 ethoxyethanol, ethyl acetate,	m-, and p-Cresol concentrations)			
	ethyl benzene, ethyl ether,	Cyclohexanone	108-94-1	0.36	NA
	isobutyl alcohol, methanol,	o-Dichlorobenzene	95-50-1	0.088	6.0
	methylene chloride, methyl ethyl	Ethyl acetate	141-78-6	0.34	33.0
	ketone, methyl isobutyl ketone,	Ethyl benzene	100-41-4	0.057	10.0
	nitrobenzene, 2-nitropane,	Ethyl ether	60-29-7	0.12	160.0
	pyridine, tetrachloroethylene,	Isobutyl alcohol	78-83-1	5.6	170.0
	toluene, 1,1,1-trichloroethane,	Methanol	67-56-1	5.6	NA
	1,1,2-trichloroethane,	Methylene chloride	75-9-2	0.089	30.0
	1,1,2-trichloro-1,2,2-	Methyl ethyl ketone	78-93-3	0.28	36.0
	trifluoroethane, trichloroethane,	Methyl isobutyl ketone	108-10-1	0.14	33.0
	trichloroethylene,	Nitrobenzene	98-95-3	0.068	14.0
	trochloromono-fluoromethane, or	Pyridine	110-86-1	0.014	16.0
	xylenes (except as specifically	Tetrachloroethylene	127-18-4	0.056	6.0
	noted in other subcategories).	Toluene	108-88-3	0.08	10.0
	See further details of these	1,1,1-Trichloroethane	71-55-6	0.054	6.0
	listings in rule 3745-51-31 of the	1,1,2-Trichloroethane	79-00-5	0.054	6.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
	Administrative Code.	1,1,2-Trichloro-1,2,2- trifluoroethane	76-13-1	0.057	30.0
		Trichloroethylene	79-01-6	0.054	6.0
		Trichloromono- fluoromethane	75-69-4	0.02	30.0
		Xylenes- mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30.0
	F003 or F005 solvent wastes that contain any combination of one or more of the following three	Carbon disulfide	75-15-0	3.8	4.8 mg/L TCLP
	solvents as the only listed F001 to F005 solvents: carbon disulfide, cyclohexanone, or methanol.	Cyclohexanone	108-94-1	0.36	0.75 mg/L TCLP
	F005 solvent waste containing 2-Nitropropane as the only listed	Methanol	67-56-1	5.6	0.75 mg/L TCLP
	F001 to F005 solvent. F005 solvent waste containing 2-Ethoxyethanol as the only	2-Nitropropane	79-46-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
	listed F001 to F005 solvent.	2-Ethoxyethanol	110-80-5	BIODG; or CMBST	CMBST

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous				Concentration ³ in	Concentration 5 in mg/kg unless noted as
waste	Waste description and treatment		CAS ²	mg/L; or technology	"mg/L TCLP"; or
number	or regulatory subcategory ¹	Common name	number	code ⁴	technology code 4
F006	Wastewater treatment sludges from electroplating operations	Cadmium	7440-43-9	0.69	0.11 mg/L TCLP
	except from the following processes: (1) sulfuric acid	Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
	anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc	Cyanides (total) ⁷	57-12-5	1.2	590.0
	plating (segregated basis) on carbon steel; (4) aluminum or	Cyanides (amenable) ⁷	57-12-5	0.86	30.0
	zinc-aluminum plating on carbon steel; (5) cleaning or stripping	Lead	7439-92-1	0.69	0.75 mg/L TCLP
	associated with tin, zinc, and aluminum plating on carbon	Nickel	7440-02-0	3.98	11.0 mg/L TCLP
	steel; and (6) chemical etching and milling of aluminum	Silver	7440-22-4	NA	0.14 mg/L TCLP
F007	Spent cyanide plating bath	Cadmium	7440-43-9	NA	0.11 mg/L TCLP
	solutions from electroplating	Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
	operations	Cyanides (total) ⁷	57-12-5	1.2	590.0
		Cyanides (amenable) ⁷	57-12-5	0.86	30.0
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
		Nickel	7440-02-0	3.98	11.0 mg/L TCLP
		Silver	7440-22-4	NA	0.14 mg/L TCLP

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
F008	Plating bath residues from the	Cadmium	7440-43-9	NA	0.11 mg/L TCLP
	bottom of plating baths from	Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
	electroplating operations where	Cyanides (total) ⁷	57-12-5	1.2	590.0
	cyanides are used in the process	Cyanides (amenable) ⁷	57-12-5	0.86	30.0
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
		Nickel	7440-02-0	3.98	11.0 mg/L TCLP
		Silver	7440-22-4	NA	0.14 mg/L TCLP
F009	Spent stripping and cleaning bath	Cadmium	7440-43-9	NA	0.11 mg/L TCLP
	solutions from electroplating	Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
	operations where cyanides are	Cyanides (total) ⁷	57-12-5	1.2	590.0
	used in the process	Cyanides (amenable) ⁷	57-12-5	0.86	30.0
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
		Nickel	7440-02-0	3.98	11.0 mg/L TCLP
		Silver	7440-22-4	NA	0.14 mg/L TCLP
F010	Quenching bath residues from oil baths from metal heat treating	Cyanides (total) ⁷	57-12-5	1.2	590.0
	operations where cyanides are used in the process	Cyanides (amenable) ⁷	57-12-5	0.86	NA

		Regulated hazardous c	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
F011	Spent cyanide solutions from salt	Cadmium	7440-43-9	NA	0.11 mg/L TCLP
	bath pot cleaning from metal heat	Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
	treating operations such	Cyanides (total) ⁷	57-12-5	1.2	590.0
	phosphating is an exclusive	Cyanides (amenable) ⁷	57-12-5	0.86	30.0
	conversion coating process	Lead	7439-92-1	0.69	0.75 mg/L TCLP
		Nickel	7440-02-0	3.98	11.0 mg/L TCLP
		Silver	7440-22-4	NA	0.14 mg/L TCLP
F012	Quenching wastewater treatment	Cadmium	7440-43-9	NA	0.11 mg/L TCLP
	sludges from metal heat treating	Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
	operations where cyanides are	Cyanides (total) ⁷	57-12-5	1.2	590.0
	used in the process	Cyanides (amenable) ⁷	57-12-5	0.86	30.0
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
		Nickel	7440-02-0	3.98	11.0 mg/L TCLP
		Silver	7440-22-4	NA	0.14 mg/L TCLP
F019	Wastewater treatment sludges from the chemical conversion	Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
	coating of aluminum except from zirconium phosphating in	Cyanides (total) ⁷	57-12-5	1.2	590.0
	aluminum can washing when such phosphating is an exclusive conversion coating process	Cyanides (amenable) ⁷	57-12-5	0.86	30.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use	HxCDDs (all Hexachloro dibenzo-p-dioxins)	NA	0.000063	0.001
	(as a reactant, chemical intermediate, or component in a formulating process) of: (1) trior tetrachlorophenol, or of	HxCDFs (all Hexachloro dibenzofurans)	NA	0.000063	0.001
	intermediates used to produce their pesticide derivatives, excluding wastes from the production of Hexachlorophene	PeCDDs (all Pentachloro dibenzo-p-dioxins)	NA	0.000063	0.001
	from highly purified 2,4,5- trichlorophenol (F020); (2) pentachlorophenol, or of intermediates used to produce its	PeCDFs (all Pentachloro dibenzofurans)	NA	0.000035	0.001
	derivatives (i.e., F021); (3) tetra-, penta-, or hexachlorobenzenes	Pentachlorophenol	87-86-5	0.089	7.4
	under alkaline conditions (i.e., F022); and from the production of materials on equipment previously used for the	TCDDs (all Tetrachloro dibenzo-p-dioxins)	NA	0.000063	0.001

		Regulated hazardous constituent		Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
	production or manufacturing use (as a reactant, chemical intermediate, or a component in a formulating process) of: (1) tri-	TCDFs (all Tetrachloro dibenzofurans)	NA	0.000063	0.001
	or <u>tetrachlorophenols</u> , <u>excluding</u> wastes from equipment used only for the production of	2,4,5-Trichlorophenol	95-95-4	0.18	7.4
	hexachlorophene from highly purified 2,4,5-trichlorophenol	2,4,6-Trichlorophenol	88-06-2	0.035	7.4
	(F023); (2) tetra-, penta-, or tetrachlorophenols, excluding hexa-chlorobenzenes under alkaline conditions (i.e., F026)	2,3,4,6- Tetrachlorophenol	58-90-2	0.03	7.4
F024	Process wastes, including but not limited to, distillation residues,	all F024 wastes	NA	CMBST 11	CMBST ¹¹
	heavy ends, tars, and reactor clean-out wastes from the	2-Chloro-1,3- butadiene	126-99-8	0.057	0.28
	production of certain chlorinated aliphatic hydrocarbons by free	3-Chloropropylene	107-05-1	0.036	30.0
	radical catalyzed processes. These chlorinated aliphatic	1,1-Dichloroethane	75-34-3	0.059	6.0
	hydrocarbons are those having carbon chain lengths ranging	1,2-Dichloroethane	107-06-2	0.21	6.0

		Regulated hazardous c	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ²	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
	from one to and including five, with varying amounts and	1,2-Dichloropropane	78-87-5	0.85	18.0
	positions of chloride substitution (This listing does not include	cis-1,3- Dichloropropylene	10061-01-5	0.036	18.0
	wastewaters, wastewater treatment sludges spent catalysts,	trans-1,3- Dichloropropylene	10061-02-6	0.036	18.0
	or wastes listed in rule 3745-51-31 or 3745-51-32 of the	bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28.0
	Administrative Code.)	Hexachloroethane	67-72-1	0.055	30.0
		Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
		Nickel	7440-02-0	3.98	11.0 mg/L TCLP
F025	Condensed light ends from the production of certain chlorinated	Carbon tetrachloride	56-23-5	0.057	6.0
	aliphatic hydrocarbons by free radical catalyzed processes.	Chloroform	67-66-3	0.046	6.0
	These chlorinated aliphatic hydrocarbons are those having	1,2-Dichloroethane	107-06-2	0.21	6.0
	carbon chain lengths ranging	1,1-Dichloroethylene	75-35-4	0.025	6.0
	from one to and including five,	Methylene chloride	75-9-2	0.089	30.0
	with varying amounts and	1,1,2-Trichloroethane	79-00-5	0.054	6.0
	positions of chlorine substitution.	Trichloroethylene	79-01-6	0.054	6.0
	F025- light ends subcategory	Vinyl chloride	75-01-4	0.27	6.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
	Spent filters and filter aids, and spent dessicant wastes from the	Carbon tetrachloride	56-23-5	0.057	6.0
	production of certain chlorinated aliphatic hydrocarbons by free	Chloroform	67-66-3	0.046	6.0
	radical catalyzed processes. These chlorinated aliphatic	Hexachlorobenzene	118-74-1	0.055	10.0
	hydrocarbons are those having carbon chain lengths ranging	Hexachlorobutadiene	87-68-3	0.055	5.6
	from one to and including five,	Hexachloroethane	67-72-1	0.055	30.0
	with varying amounts and	Methylene chloride	75-9-2	0.089	30.0
	positions of chlorine substitution.	1,1,2-Trichloroethane	79-00-5	0.054	6.0
	F025- spent filters or aids	Trichloroethylene	79-01-6	0.054	6.0
	and dessicants subcategory.	Vinyl chloride	75-01-4	0.27	6.0
F027	Discarded unused formulations containing tri-, tetra-, or	HxCDDs (all Hexachloro dibenzo-p-dioxins)	NA	0.000063	0.001
	pentachlorophenol or discarded unused formulations containing	HxCDFs (all Hexachloro dibenzofurans)	NA	0.000063	0.001
	compounds derived from these chlorophenols. (This listing does	PeCDDs (all Pentachloro dibenzo-p-dioxins)	NA	0.000063	0.001
	not include formulations containing hexachlorophene	PeCDFs (all Pentachloro dibenzofurans)	NA	0.000035	0.001
	synthesized from prepurified	Pentachlorophenol	87-86-5	0.089	7.4

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
	2,4,5- trichlorophenol as the sole component.)	TCDDs (all Tetrachloro dibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (all Tetrachloro dibenzofurans)	NA	0.000063	0.001
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		2,3,4,6- Tetrachlorophenol	58-90-2	0.03	7.4
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA hazardous waste numbers F020,	HxCDDs (all Hexachloro- dibenzofurans Hexachloro-dibenzo-p- dioxins)	NA	0.000063	0.001
	F021, F023, F026, and F027.	HxCDFs (all Hexachloro dibenzofurans)	NA	0.000063	0.001
		PeCDDs (all Pentachloro dibenzo-p-dioxins)	NA	0.000063	0.001
		PeCDFs (all Pentachloro dibenzofurans)	NA	0.000035	0.001
		Pentachlorophenol	87-86-5	0.089	7.4
		TCDDs (all Tetrachloro dibenzo-p-dioxins)	NA	0.000063	0.001

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		TCDFs (all Tetrachloro dibenzofurans)	NA	0.000063	0.001
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		2,3,4,6-Tetrachlorophenol	58-90-2	0.03	7.4
F032	Wastewaters (except those that	Acenaphthene	83-32-9	0.059	3.4
	have not come into contact with	Anthracene	120-12-7	0.059	3.4
	process contaminants), process	Benz(a)anthracene	56-55-3	0.059	3.4
	residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently	Benzo(b)fluoranthene [difficult to distinguish from benzo(k)fluoranthene]	205-99-2	0.11	6.8
	use or previously used chlorophenolic formulations [except potentially cross-contaminated wastes that have	Benzo(k)fluoranthene [difficult to distinguish from benzo(b)fluoranthene]	207-08-9	0.11	6.8
	had the F032 EPA hazardous	Benzo(a)pyrene	50-32-8	0.061	3.4
	waste number deleted in	Chrysene	218-01-9	0.059	3.4
	accordance with rule 3745-51-35	Dibenz(a,h)anthracene	53-70-3	0.055	8.2
	of the Administrative Code or	2,4-Dimethyl phenol	105-67-9	0.036	14.0
	potentially cross-contaminated	Fluorene	86-73-7	0.059	3.4

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous				Concentration ³ in	Concentration 5 in mg/kg unless noted as
waste	Waste description and treatment		CAS ²	mg/L; or technology	"mg/L TCLP"; or
number	or regulatory subcategory ¹	Common name	number	code ⁴	technology code 4
	wastes that are otherwise currently regulated as hazardous	Hexachloro dibenzo-p-dioxins	NA	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹
	wastes (i.e., F034 or F035), and where the generator does not	Hexachlorodibenzofurans	NA	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹
	resume or initiate use of	Indeno(1,2,3-c,d)pyrene	193-39-5	0.0055	3.4
	chlorophenolic formulations].	Naphthalene	91-20-3	0.059	5.6
	This listing does not include K001 bottom sediment sludge	Pentachloro dibenzo-p-dioxins	NA	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹
	from the treatment of wastewater that use creosote or	Pentachlorodibenzofurans	NA	0.000035 or CMBST ¹¹	0.001 or CMBST ¹¹
	pentachlorophenol.	Pentachlorophenol	87-86-5	0.089	7.4
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Tetrachlorodibenzo-p- dioxins	NA	0.000063 or CMBST ¹¹	0.001 or CMBST 11
		Tetrachlorodibenzofurans	NA	0.000063 or CMBST ¹¹	0.001 or CMBST 11
		2,3,4,6-Tetrachlorophenol	58-90-2	0.03	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		Arsenic	7440-38-2	1.4	5.0 mg/L TCLP

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
F034	Wastewaters (except those that	Acenaphthene	83-32-9	0.059	3.4
	have not come into contact with	Anthracene	120-12-7	0.059	3.4
	process contaminants), process	Benz(a)anthracene	56-55-3	0.059	3.4
	residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use	Benzo(b)fluoranthene [difficult to distinguish from benzo(k)fluoranthene]	205-99-2	0.11	6.8
	creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from	Benzo(k)fluoranthene [difficult to distinguish from benzo(b)fluoranthene]	207-08-9	0.11	6.8
	wood preserving processes that	Benzo(a)pyrene	50-32-8	0.061	3.4
	use creosote or	Chrysene	218-01-9	0.059	3.4
	pentachlorophenol.	Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Fluorene	86-73-7	0.059	3.4
		Indeno(1,2,3-c,d)pyrene	193-39-5	0.0055	3.4
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Pyrene	129-00-0	0.067	8.2
		Arsenic	7440-38-2	1.4	5.0 mg/L TCLP

		Regulated hazardous c	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
F035	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
	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 or pentachlorophenol.	Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
F037	Petroleum refinery primary oil or water or solids separation sludge.	Acenaphthene	83-32-9	0.059	NA
	Any sludge generated from the gravitational separation of	Anthracene	120-12-7	0.059	3.4
	oil or water or solids during the storage or treatment of process	Benzene	71-43-2	0.14	10.0
	wastewaters and oily cooling wastewaters from petroleum	Benz(a)anthracene	56-55-3	0.059	3.4

		Regulated hazardous constitue		Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
	refineries. Such sludges include, but are not limited to, those	Benzo(a)pyrene	50-32-8	0.061	3.4
	generated in soil or water or solids separators; tanks and	bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28.0
	impoundments; ditches and other conveyances; sumps, and	Chrysene	218-01-9	0.059	3.4
	stormwater units receiving dry weather flow. Sludges generated	Di-n-butyl phthalate	84-74-2	0.057	28.0
	in stormwater units that do not receive dry weather flow, sludges	Ethyl benzene	100-41-4	0.057	10.0
	sludges generated from non-contact once-through	Fluorene	86-73-7	0.059	NA
	cooling waters segregated for treatment from other process or	Naphthalene	91-20-3	0.059	5.6
	oily cooling waters, sludges generated in "aggressive	Phenanthrene	85-01-8	0.059	5.6
	biological treatment units" as defined in paragraph (B)(2) of	Phenol	108-95-2	0.039	6.2
	rule 3745-51-31 of the Administrative Code (including	Pyrene	129-00-0	0.067	8.2
	sludges generated in one or more	Toluene	108-88-3	0.08	10.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
	additional units after wastewaters have been treated in aggressive biological treatment units) and	Xylenes- mixed isomers (sum of o-, m-, and p- xylene concentrations)	1330-20-7	0.32	30.0
	have been treated in aggressive	Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
	biological treatment units) and	Cyanides (total) ⁷	57-12-5	1.2	590.0
	K051 wastes are not included in	Lead	7439-92-1	0.69	NA
	this listing.	Nickel	7440-02-0	NA	11.0 mg/L TCLP
F038	Petroleum refinery secondary (emulsified) oil or water or solids	Benzene	71-43-2	0.14	10.0
	separation sludge or float generated from the physical or	Benzo(a)pyrene	50-32-8	0.061	3.4
	chemical separation of oil or water or solids in process	bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28.0
	wastewaters and oily cooling wastewaters from petroleum	Chrysene	218-01-9	0.059	3.4
	refineries. Such waste include, but are not limited to, all sludges	Di-n-butyl phthalate	84-74-2	0.057	28.0
	and floats generated in: induced air flotation (IAF) units; tanks	Ethylbenzene	100-41-4	0.057	10.0
	and impoundments; and all sludges generated in DAF units.	Fluorene	86-73-7	0.059	NA

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
	Sludges generated in stormwater units that do not receive dry	Naphthalene	91-20-3	0.059	5.6
	weather flow, sludges generated from non-contact once-through	Phenanthrene	85-01-8	0.059	5.6
	cooling waters segregated for treatment from other process or	Phenol	108-95-2	0.039	6.2
	oily cooling waters, sludges and floats generated in "aggressive	Pyrene	129-00-0	0.067	8.2
	biological treatment units" as defined in paragraph (B)(2) of	Toluene	108-88-3	0.08	10.0
	rule 3745-51-31 of the Administrative Code (including sludges and floats generated in	Xylenes- mixed isomers (sum of o-, m-, and p- xylene concentrations)	1330-20-7	0.32	30.0
	one or more additional units after wastewaters have been treated in	Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
	aggressive biological treatment units) and F037, K048, and K051	Cyanides (total) ⁷	57-12-5	1.2	590.0
	wastes are not included in this	Lead	7439-92-1	0.69	NA
	listing.	Nickel	7440-02-0	NA	11.0 mg/L TCLP
F039	Leachate (liquids that have	Acenaphthylene	208-96-8	0.059	3.4
	percolated through land disposed	Acenaphthene	83-32-9	0.059	3.4
	wastes) resulting from the	Acetone	67-64-1	0.28	160.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
	disposal of more than one	Acetonitrile	75-05-8	5.6	NA
	restricted waste classified as	Acetophenone	96-86-2	0.01	9.7
	hazardous under rules	2-Acetylaminofluorine	53-96-3	0.059	140.0
	3745-270-40 to 3745-270-49 of	Acrolein	107-02-8	0.29	NA
	the Administrative Code.	Acrylonitrile	107-13-1	0.24	84.0
	(Leachate resulting from the	Aldrin	309-00-2	0.021	0.066
	disposal of one or more of the	4-Aminobiphenyl	92-67-1	0.13	NA
	following EPA hazardous wastes	Aniline	62-53-3	0.81	14.0
	and no other hazardous wastes retains its EPA hazardous	o-Anisidine (2-methoxyaniline)	90-04-0	0.010	0.66
	waste numbers: F020, F021,	Anthracene	120-12-7	0.059	3.4
	F022, F026, F027, or F028.)	Aramite	140-57-8	0.36	NA
		alpha-BHC	319-84-6	0.00014	0.066
		beta-BHC	319-85-7	0.00014	0.066
		delta-BHC	319-86-8	0.023	0.066
		gamma-BHC	58-89-9	0.0017	0.066
		Benzene	71-43-2	0.14	10.0
		Benz(a)anthracene	56-55-3	0.059	3.4

		Regulated hazardous constituent		Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		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	15.0
		Methyl bromide (Bromomethane)	74-83-9	0.11	15.0
		4-Bromophenyl phenyl ether	101-55-3	0.055	15.0
		n-Butyl alcohol	71-36-3	5.6	2.6
		Butyl benzyl phthalate	85-68-7	0.017	28.0
		2-sec-Butyl-4,6- dinitrophenol (Dinoseb)	88-85-7	0.066	2.5
		Carbon disulfide	75-15-0	3.8	NA
		Carbon tetrachloride	56-23-5	0.057	6.0

		Regulated hazardous c	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
		p-Chloroaniline	106-47-8	0.46	16.0
		Chlorobenzene	108-90-7	0.057	6.0
		Chlorobenzilate	510-15-6	0.1	NA
		2-Chloro-1,3-butadiene	126-99-8	0.057	NA
		Chlorodibromomethane	124-48-1	0.057	15.0
		Chloroethane	75-00-3	0.27	6.0
		bis(2-Chloroethoxy) methane	111-91-1	0.036	7.2
		bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
		Chloroform	67-66-3	0.046	6.0
		bis(2-Chloroisopropyl) ether	39638-32-9	0.055	7.2
		p-Chloro-m-cresol	59-50-7	0.018	14.0
		Chloromethane (Methyl chloride)	74-87-3	0.19	30.0
		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	30.0
		Chrysene	218-01-9	0.059	3.4

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		p-Cresidine	120-71-8	0.010	0.66
		o-Cresol	95-48-7	0.11	5.6
		m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
		p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
		Cyclohexanone	108-94-1	0.36	NA
		1,2-Dibromo-3- Chloropropane	96-12-8	0.11	15.0
		Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15.0
		Dibromomethane	74-95-3	0.11	15.0
		2,4-D (2,4- Dichloro phenoxyacetic acid)	94-75-7	0.72	10.0
		o,p'-DDD	53-19-0	0.023	0.087
		p,p'-DDD	72-54-8	0.023	0.087
		o,p'-DDE	3424-82-6	0.031	0.087
		p,p'-DDE	72-55-9	0.031	0.087
		o,p'-DDT	789-02-6	0.0039	0.087
		p,p'-DDT	50-29-3	0.0039	0.087

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste	Waste description and treatment		CAS ²	Concentration ³ in mg/L; or technology	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or
number	or regulatory subcategory ¹	Common name	number	code ⁴	technology code 4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Dibenz(a,e)pyrene	192-65-4	0.061	NA
		m-Dichlorobenzene	541-73-1	0.036	6.0
		o-Dichlorobenzene	95-50-1	0.088	6.0
		p-Dichlorobenzene	106-46-7	0.09	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	30.0
		2,4-Dichlorophenol	120-83-2	0.044	14.0
		2,6-Dichlorophenol	87-65-0	0.044	14.0
		1,2-Dichloropropane	78-87-5	0.85	18.0
		cis-1,3-Dichloro propylene	10061-01-5	0.036	18.0
		trans-1,3- Dichloropropylene	10061-02-6	0.036	18.0
		Dieldrin	60-57-1	0.017	0.13
		Diethyl phthalate	84-66-2	0.2	28.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ²	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		2,4-Dimethylaniline (2,4-xylidine)	95-68-1	0.010	0.66
		2,4-Dimethyl phenol	105-67-9	0.036	14.0
		Dimethyl phthalate	131-11-3	0.047	28.0
		Di-n-butyl phthalate	84-74-2	0.057	28.0
		1,4-Dinitrobenzene	100-25-4	0.32	2.3
		4,6-Dinitro-o-cresol	534-52-1	0.28	160.0
		2,4-Dinitrophenol	51-28-5	0.12	160.0
		2,4-Dinitrotoluene	121-14-2	0.32	140.0
		2,6-Dinitrotoluene	606-20-2	0.55	28.0
		Di-n-octyl phthalate	117-84-0	0.017	28.0
		Di-n-propylnitrosamine	621-64-7	0.4	14.0
		1,4-Dioxane	123-91-1	12.0	170.0
		Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	NA
		Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	NA
		1,2-Diphenylhydrazine	122-66-7	0.087	NA
		Disulfoton	298-04-4	0.017	6.2

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		Endosulfan I	939-98-8	0.023	0.066
		Endosulfan II	33213-6-5	0.029	0.13
		Endosulfan sulfate	1031-07-8	0.029	0.13
		Endrin	72-20-8	0.0028	0.13
		Endrin aldehyde	7421-93-4	0.025	0.13
		Ethyl acetate	141-78-6	0.34	33.0
		Ethyl cyanide (Propanenitrile)	107-12-0	0.24	360.0
		Ethyl benzene	100-41-4	0.057	10.0
		Ethyl ether	60-29-7	0.12	160.0
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28.0
		Ethyl methacrylate	97-63-2	0.14	160.0
		Ethylene oxide	75-21-8	0.12	NA
		Famfur	52-85-7	0.017	15.0
		Fluoranthene	206-44-0	0.068	3.4
		Fluorene	86-73-7	0.059	3.4
		Heptachlor	76-44-8	0.0012	0.066
		Heptachlor epoxide	1024-57-3	0.016	0.066

		Regulated hazardous constituent		Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		1,2,3,4,6,7,8-Heptachloro dibenzo-p- dioxin (1,2,3,4,6,7,8-HpCCD)	35822-46-9	0.000035	0.0025
		1,2,3,4,6,7,8- Heptachloro dibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562-39-4	0.000035	0.0025
		1,2,3,4,7,8,9- Heptachloro dibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673-89-7	0.000035	0.0025
		Hexachlorobenzene	118-74-1	0.055	10.0
		Hexachlorobutadiene	87-68-3	0.055	5.6
		Hexachloro cyclopentadiene	77-47-4	0.057	2.4
		HxCDDs (all Hexachloro dibenzo-p-dioxins)	NA	0.000063	0.001
		HxCDFs (all Hexachloro dibenzofurans)	NA	0.000063	0.001
		Hexachloroethane	67-72-1	0.055	30.0
		Hexachloropropylene	1888-71-7	0.035	30.0
		Indeno(1,2,3-c,d)pyrene	193-39-5	0.0055	3.4
		Iodomethane	74-88-4	0.19	65.0
		Isobutyl alcohol	78-83-1	5.6	170.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous	Wests description and treatment		CAS ²	Concentration ³ in mg/L; or technology	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or
waste number	Waste description and treatment or regulatory subcategory ¹	Common name	number	code 4	technology code 4
		Isodrin	465-73-6	0.021	0.066
		Isosafrole	120-58-1	0.081	2.6
		Kepone	143-50-8	0.0011	0.13
		Methacryonitrile	126-98-7	0.24	84.0
		Methanol	67-56-1	5.6	NA
		Methapyrilene	91-80-5	0.081	1.5
		Methoxychlor	72-43-5	0.25	0.18
		3-Methylcholanthrene	56-49-5	0.0055	15.0
		4,4-Methylene bis(2-chloroaniline)	101-14-4	0.5	30.0
		Methylene chloride	75-09-2	0.089	30.0
		Methyl ethyl ketone	78-93-3	0.28	36.0
		Methyl isobutyl ketone	108-10-1	0.14	33.0
		Methyl methacrylate	80-62-6	0.14	160.0
		Methyl methansulfonate	66-27-3	0.018	NA
		Methyl parathion	290-00-0	0.014	4.6
		Naphthalene	91-20-3	0.059	5.6
		2-Naphthylamine	91-59-8	0.52	NA
		p-Nitroaniline	100-01-6	0.028	28.0
		Nitrobenzene	98-95-3	0.068	14.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
number	lor regulatory subcategory	5-Nitro-0-toluidine	99-55-8	0.32	28.0
		p-Nitrophenol	100-02-7	0.12	29.0
		N-Nitrosodiethylamine	55-18-5	0.4	28.0
		N-Nitrosodimethylamine	62-75-9	0.4	NA NA
		N-Nitroso-di-n- butylamine	924-16-3	0.4	17.0
		N-Nitrosomethylethyl amine	10595-95-6	0.4	2.3
		N-Nitrosomorpholine	59-89-2	0.4	2.3
		N-Nitrosopiperidine	100-75-4	0.013	35.0
		N-Nitrosopyrrolidine	930-55-2	0.013	35.0
		1,2,3,4,6,7,8,9- Octachlorodibenzo-p- dioxin (OCDD)	3268-87-9	0.000063	0.0025
		1,2,3,4,6,7,8,9-Octachloro dibenzofuran (OCDF)	39001-02-0	0.000063	0.005
		Parathion	56-38-2	0.014	4.6
		Total PCBs (sum of all PCB isomers, or all aroclors)	1336-36-3	0.1	10.0
		Pentachlorobenzene	608-93-5	0.055	10.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ²	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		PeCDDs (all Pentachloro dibenzo-p-dioxins)	NA	0.000063	0.001
		PeCDFs (all Pentachloro dibenzofurans)	NA	0.000035	0.001
		Pentachloronitrobenzene	82-68-8	0.055	4.8
		Pentachlorophenol	87-86-5	0.089	7.4
		Phenacetin	62-44-2	0.081	16
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		1,3-Phenylenediamine	108-45-2	0.010	0.66
		Phorate	298-02-2	0.021	4.6
		Phthalic anhydride	85-44-9	0.055	NA
		Pronamide	23950-58-5	0.093	1.5
		Pyrene	129-00-0	0.067	8.2
		Pyridine	110-86-1	0.014	16.0
		Safrole	94-59-7	0.081	22.0
		Silvex (2,4,5-TP)	93-72-1	0.72	7.9
		2,4,5-T	93-76-5	0.72	7.9
		1,2,4,5- Tetrachlorobenzene	95-94-3	0.055	14.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		TCDDs (all Tetrachloro dibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (all Tetrachloro dibenzofurans)	NA	0.000063	0.001
		1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
		1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
		Tetrachloroethylene	127-18-4	0.056	6.0
		2,3,4,6-Tetrachlorophenol	58-90-2	0.03	7.4
		Toluene	108-88-3	0.08	10.0
		Toxaphene	8001-35-2	0.0095	2.6
		Bromoform (Tribromomethane)	75-25-2	0.63	15.0
		1,2,4-Trichlorobenzene	120-82-1	0.055	19.0
		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
		Trichloromono fluoromethane	75-69-4	0.02	30.0
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		1,2,3-Trichloropropane	96-18-4	0.85	30.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		1,1,2-Trichloro- 1,2,2-trifluoroethane	76-13-1	0.057	30.0
		tris(2,3-Dibromopropyl) phosphate	126-72-7	0.11	NA
		Vinyl chloride	75-01-4	0.27	6.0
		Xylenes- mixed isomers (sum of o-, m-, and p- xylene concentrations)	1330-20-7	0.32	30.0
		Antimony	7440-36-0	1.9	1.15 mg/L TCLP
		Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
		Barium	7440-39-3	1.2	21.0 mg/L TCLP
		Beryllium	7440-41-7	0.82	NA
		Cadmium	7440-43-9	0.69	0.11 mg/L TCLP
		Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
		Cyanides (total) ⁷	57-12-5	1.2	590.0
		Cyanides (amenable) ⁷	57-12-5	0.86	NA
		Fluoride	16964-48-8	35.0	NA
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
		Mercury	7439-97-6	0.15	0.025 mg/L TCLP
		Nickel	7440-02-0	3.98	11.0 mg/L TCLP
		Selenium	7782-49-2	0.82	5.7 mg/L TCLP

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		Silver	7440-22-4	0.43	0.14 mg/L TCLP
		Sulfide	8496-25-8	14.0	NA
		Thallium	7440-28-0	1.4	NA
		Vanadium	7440-62-2	4.3	NA
K001	Bottom sediment sludge from the	Naphthalene	91-20-3	0.059	5.6
	treatment of wastewaters from	Pentachlorophenol	87-86-5	0.089	7.4
	wood preserving processes that	Phenanthrene	85-01-8	0.059	5.6
	use creosotes or	Pyrene	129-00-0	0.067	8.2
	pentachlorophenol	Toluene	108-88-3	0.08	10.0
		Xylenes- mixed isomers (sum of o-, m-, and p- xylene concentrations)	1330-20-7	0.32	30.0
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
K002	Wastewater treatment sludge from the production of chrome	Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
	yellow and orange pigments	Lead	7439-92-1	0.69	0.75 mg/L TCLP
K003	Wastewater treatment sludge from the production of molybdate	Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
	orange pigments	Lead	7439-92-1	0.69	0.75 mg/L TCLP

		Regulated hazardous c	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste	Waste description and treatment		CAS ²	Concentration ³ in mg/L; or technology	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or
number	or regulatory subcategory ¹	Common name	number	code 4	technology code ⁴
K004	Wastewater treatment sludge from the production of zinc	Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
	yellow pigments	Lead	7439-92-1	0.69	0.75 mg/L TCLP
K005	Wastewater treatment sludge	Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
	from the production of chrome	Lead	7439-92-1	0.69	0.75 mg/L TCLP
	green pigments	Cyanides (total) ⁷	57-12-5	1.2	590.0
K006	Wastewater treatment sludge from the production of chrome	Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
	oxide green pigments (anhydrous)	Lead	7439-92-1	0.69	0.75 mg/L TCLP
	Wastewater treatment sludge from the production of chrome	Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
	oxide green pigments (hydrated)	Lead	7439-92-1	0.69	0.75 mg/L TCLP
K007	Wastewater treatment sludge	Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
	from the production of iron blue	Lead	7439-92-1	0.69	0.75 mg/L TCLP
	pigments	Cyanides (total) ⁷	57-12-5	1.2	590.0
K008	Oven residues from the production of chrome oxide	Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
	green pigments	Lead	7439-92-1	0.69	0.75 mg/l mg/L TCLP
K009	Distillation bottoms from the production of acetaldehyde from ethylene	Chloroform	67-66-3	0.046	6.0

		Regulated hazardous	constituent	Wastewaters	Nonwastewaters
EPA hazardous				Concentration ³ in	Concentration ⁵ in
waste	Wests description and treatment		CAS ²		mg/kg unless noted as "mg/L TCLP"; or
number	Waste description and treatment or regulatory subcategory ¹	Common name	number	mg/L; or technology code ⁴	technology code ⁴
	ë i				
K010	Distillation side cuts from the	Chloroform	67-66-3	0.046	6.0
	production of acetaldehyde from				
	ethylene				
K011	Bottom stream from the	Acetonitrile	75-05-8	5.6	38.0
	wastewater stripper in the	Acrylonitrile	107-13-1	0.24	84.0
	production of acrylonitrile	Acrylamide	79-06-1	19.0	23.0
		Benzene	71-43-2	0.14	10.0
		Cyanide (total)	57-12-5	1.2	590.0
K013	Bottom stream from the	Acetonitrile	75-05-8	5.6	38.0
	acetonitrile column in the	Acrylonitrile	107-13-1	0.24	84.0
	production of acrylonitrile	Acrylamide	79-06-1	19.0	23.0
		Benzene	71-43-2	0.14	10.0
		Cyanide (total)	57-12-5	1.2	590.0
K014	Bottoms from the acetonitrile	Acetonitrile	75-05-8	5.6	38.0
	purification column in the	Acrylonitrile	107-13-1	0.24	84.0
	production of acrylonitrile	Acrylamide	79-06-1	19.0	23.0
		Benzene	71-43-2	0.14	10.0
		Cyanide (total)	57-12-5	1.2	590.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
K015	Still bottoms from the distillation	Anthracene	120-12-7	0.059	3.4
	of benzyl chloride	Benzal chloride	98-87-3	0.055	6.0
		Benzo(b)fluoranthene [difficult to distinguish from benzo(k)fluoranthene]	205-99-2	0.11	6.8
		Benzo(k)fluoranthene [difficult to distinguish from benzo(b)fluoranthene]	207-08-9	0.11	6.8
		Phenanthrene	85-01-8	0.059	5.6
		Toluene	108-88-3	0.08	10.0
		Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
		Nickel	7440-02-0	3.98	11.0 mg/L TCLP
K016	Heavy ends or distillation	Hexachlorobenzene	118-74-1	0.055	10.0
	residues from the production of	Hexachlorobutadiene	87-68-3	0.055	5.6
	carbon tetrachloride	Hexachloro cyclopentadiene	77-47-4	0.057	2.4
		Hexachloroethane	67-72-1	0.055	30.0
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,1-Dichloroethane	75-34-3	0.059	6.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		1,2-Dichloroethane	107-06-2	0.21	6.0
K017	Heavy ends (still bottoms) from	bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
	the purification column in the	1,2-Dichloropropane	78-87-5	0.85	18.0
	production of epichlorohydrin	1,2,3-Trichloropropane	96-18-4	0.85	30.0
K018	Heavy ends from the	Chloroethane	75-00-3	0.27	6.0
	fractionation column in ethyl	Chloromethane	74-87-3	0.19	NA
	chloride production	1,1-Dichloroethane	75-34-3	0.059	6.0
		1,2-Dichloroethane	107-06-2	0.21	6.0
		Hexachlorobenzene	118-74-1	0.055	10.0
		Hexachlorobutadiene	87-68-3	0.055	5.6
		Hexachloroethane	67-72-1	0.055	30.0
		Pentachloroethane	76-01-7	NA	6.0
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
K019	Heavy ends from the distillation	bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
	of ethylene dichloride in thylene	Chlorobenzene	108-90-7	0.057	6.0
	dichloride production	Chloroform	67-66-3	0.046	6.0
		p-Dichlorobenzene	106-46-7	0.09	NA
		1,2-Dichloroethane	107-06-2	0.21	6.0
		Fluorene	86-73-7	0.059	NA
		Hexachloroethane	67-72-1	0.055	30.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste	Waste description and treatment		CAS ²	Concentration ³ in mg/L; or technology	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or
number	or regulatory subcategory 1	Common name	number	code ⁴	technology code ⁴
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		1,2,4,5- Tetrachlorobenzene	95-94-3	0.055	NA
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,2,4-Trichloroethane	120-82-1	0.055	19.0
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
K020	Heavy ends from the distillation	1,2-Dichloroethane	107-06-2	0.21	6.0
	of vinyl chloride in vinyl chloride	1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
	monomer production	Tetrachloroethylene	127-18-4	0.056	6.0
K021	Aqueous spent antimony catalyst	Carbon tetrachloride	56-23-5	0.057	6.0
	waste from fluoromethanes	Chloroform	67-66-3	0.046	6.0
	production	Antimony	7440-36-0	1.9	1.15 mg/L TCLP
K022	Distillation bottom tars from the	Toluene	108-88-3	0.08	10.0
	production of phenol or acetone	Acetophenone	96-86-2	0.01	9.7
	from cumene	Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	13.0
		Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	13.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		Phenol	108-95-2	0.039	6.2
		Chromium (total)	7440-47-3	2.77	0.6 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 paphthalene naphthalene	Phthalic anhydride (measured as phthalic acid or terephthalic acid)	100-21-0	0.055	28.0
		Phthalic anhydride (measured as phthalic acid or terephthalic acid)	85-44-9	0.055	28.0
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	28.0
	Phthalic anhydride 85-44-9 0.055 (measured as phthalic acid)	0.055	28.0		
K025	Distillation bottoms from the production of nitrobenzenes by the nitration of benzene	NA	NA	LLEXT fb SSTRP fb CARBN; or CMBST	CMBST
K026	Stripping still tails from the production of methyl ethyl pyridines	NA	NA	CMBST	CMBST

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
K027	Centrifuge and distillation residues from toluene diisocyanate production	NA	NA	CARBN; or CMBST	CMBST
K028	Spent catalyst from the	1,1-Dichloroethane	75-34-3	0.059	6.0
	hydrochlorinator reactor in the production of	trans-1,2- Dichloroethylene	156-60-5	0.054	30.0
	1,1,1-trichloroethane	Hexachlorobutadiene	87-68-3	0.055	5.6
		Hexachloroethane	67-72-1	0.055	30.0
		Pentachloroethane	76-01-7	NA	6.0
		1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
		1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		Cadmium	7440-43-9	0.69	NA
		Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
		Nickel	7440-02-0	3.98	11.0 mg/L TCLP

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
K029	Waste from the product steam	Chloroform	67-66-3	0.046	6.0
	stripper in the production of	1,2-Dichloroethane	107-06-2	0.21	6.0
	1,1,1-trichloroethane	1,1-Dichloroethylene	75-35-4	0.025	6.0
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
		Vinyl chloride	75-01-4	0.27	6.0
K030	Column bodies or heavy ends	o-Dichlorobenzene	95-50-1	0.088	NA
	from the combined production of	p-Dichlorobenzene	106-46-7	0.09	NA
	trichloroethylene and	Hexachlorobutadiene	87-68-3	0.055	5.6
	perchloroethylene	Hexachloroethane	67-72-1	0.055	30.0
		Hexachloropropylene	1888-71-7	NA	30.0
		Pentachlorobenzene	608-93-5	NA	10.0
		Pentachloroethane	76-01-7	NA	6.0
		1,2,4,5- Tetrachlorobenzene	95-94-3	0.055	14.0
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,2,4-Trichlorobenzene	120-82-1	0.055	19.0
K031	By-product salts generated in the production of MSMA and cacodylic acid	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
K032	Wastewater treatment sludge from the production of	Hexachloro cyclopentadiene	77-47-4	0.057	2.4
	chlordane	Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
		Heptachlor	76-44-8	0.0012	0.066
		Heptachlor epoxide	1024-57-3	0.016	0.066
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane	Hexachloro cyclopentadiene	77-47-4	0.057	2.4
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane	Hexachloro cyclopentadiene	77-47-4	0.057	2.4
K035	Wastewater treatment sludges	Acenaphthene	83-32-9	NA	3.4
	generated in the production of	Anthracene	120-12-7	NA	3.4
	creosote	Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Chrysene	218-01-9	0.059	3.4
		o-Cresol	95-48-7	0.11	5.6
		m-Cresol (difficult to distinguish from p-Cresol)	108-39-4	0.77	5.6

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		p-Cresol (difficult to distinguish from m-Cresol)	106-44-5	0.77	5.6
		Dibenz(a,h)anthacene	53-70-3	NA	8.2
		Fluoranthene	206-44-0	0.068	3.4
		Fluorene	86-73-7	NA	3.4
		Indeno(1,2,3-c,d)pyrene	193-39-5	NA	3.4
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton	Disulfoton	298-04-4	0.017	6.2
K037	Wastewater treatment sludges	Disulfoton	298-04-4	0.017	6.2
	from the production of disulfoton	Toluene	108-88-3	0.08	10.0
K038	Wastewater from the washing and stripping of phorate production	Phorate	298-02-2	0.021	4.6
K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate	NA	NA	CARBN; or CMBST	CMBST

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
K040	Wastewater treatment sludge from the production of phorate	Phorate	298-02-2	0.021	4.6
K041	Wastewater treatment sludge from the production of toxaphene	Toxaphene	8001-35-2	0.0095	2.6
K042	Heavy ends or distillation	o-Dichlorobenzene	95-50-1	0.088	6.0
	residues from the distillation of	p-Dichlorobenzene	106-46-7	0.09	6.0
	tetrachlorobenzene in the	Pentachlorobenzene	608-93-5	0.055	10.0
	production of 2,4,5-T	1,2,4,5- Tetrachlorobenzene	95-94-3	0.055	14.0
		1,2,4-Trichlorobenzene	120-82-1	0.055	19.0
K043	2,6-Dichlorophenol waste from	2,4-Dichlorophenol	120-83-2	0.044	14.0
	the production of 2,4-D	2,6-Dichlorophenol	187-65-0	0.044	14.0
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		2,3,4,6-Tetrachlorophenol	58-90-2	0.03	7.4
		Pentachlorophenol	87-86-5	0.089	7.4
		Tetrachloroethylene	127-18-4	0.056	6.0
		HxCDDs (all Hexachloro dibenzo-p-dioxins)	NA	0.000063	0.001
		HxCDFs (all Hexachloro dibenzofurans)	NA	0.000063	0.001

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		PeCDDs (all Pentachloro dibenzo-p-dioxins)	NA	0.000063	0.001
		PeCDFs (all Pentachloro dibenzofurans)	NA	0.000035	0.001
		TCDDs (all Tetrachloro dibenzo-p-dioxins)	NA	0.000063	0.001
		TDFs (all Tetrachloro dibenzofurans)	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 or red water from TNT operations	NA	NA	DEACT	DEACT

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
K048	Dissolved air flotation (DAF)	Benzene	71-43-2	0.14	10.0
	float from the petroleum refining	Benzo(a)pyrene	50-32-8	0.061	3.4
	industry	bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28.0
		Chrysene	218-01-9	0.059	3.4
		Di-n-butyl phthalate	84-74-2	0.057	28.0
		Ethylbenzene	100-41-4	0.057	10.0
		Fluorene	86-73-7	0.059	NA
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.08	10.0
		Xylenes- mixed isomers (sum of o-, m-, and p- xylene concentrations)	1330-20-7	0.32	30.0
		Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
		Cyanides (total) ⁷	57-12-5	1.2	590.0
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	11.0 mg/L TCLP

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
K049	Slop oil emulsion solids from the	Anthracene	120-12-7	0.059	3.4
	petroleum refining industry	Benzene	71-43-2	0.14	10.0
		Benzo(a)pyrene	50-32-8	0.061	3.4
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28.0
		Carbon disulfide	75-15-0	3.8	NA
		Chrysene	218-01-9	0.059	3.4
		2,4-Dimethylphenol	105-67-9	0.036	NA
		Ethylbenzene	100-41-4	0.057	10.0
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.08	10.0
		Xylenes- mixed isomers (sum of o-, m-, and p- xylene concentrations)	1330-20-7	0.32	30.0
		Cyanides (total) ⁷	57-12-5	1.2	590.0
		Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
		Lead	7439-92-1	0.69	NA

		Regulated hazardous c	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ²	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
number	or regulatory subcategory	Nickel	7440-02-0	NA	11.0 mg/L TCLP
K050	Heat exchanger bundle cleaning	Benzo(a)pyrene	50-32-8	0.061	3.4
	sludge from the petroleum	Phenol	108-95-2	0.039	6.2
	refining industry	Cyanides (total) ⁷	57-12-5	1.2	590.0
		Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	11.0 mg/L TCLP
K051	API separator sludge from the	Acenaphthene	83-32-9	0.059	NA
	petroleum refining industry	Anthracene	120-12-7	0.059	3.4
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzene	71-43-2	0.14	10.0
		Benzo(a)pyrene	50-32-8	0.061	3.4
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28.0
		Chrysene	218-01-9	0.059	3.4
		Di-n-butyl phthalate	105-67-9	0.057	28.0
		Ethylbenzene	100-41-4	0.057	10.0
		Fluorene	86-73-7	0.059	NA
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste	Waste description and treatment		CAS ²	Concentration ³ in mg/L; or technology	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or
number	or regulatory subcategory ¹	Common name	number	code ⁴	technology code 4
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.08	10.0
		Xylenes- mixed isomers (sum of o-, m-, and p- xylene concentrations)	1330-20-7	0.32	30.0
		Cyanides (total) ⁷	57-12-5	1.2	590.0
		Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	11.0 mg/L TCLP
K052	Tank bottoms (leaded) from the	Benzene	71-43-2	0.14	10.0
	petroleum refining industry	Benzo(a)pyrene	50-32-8	0.061	3.4
		o-Cresol	95-48-7	0.11	5.6
		m-Cresol (difficult to distinguish from o-Cresol)	108-39-4	0.77	5.6
		p-Cresol (difficult to distinguish from m-Cresol)	106-44-5	0.77	5.6
		2,4-Dimethylphenol	105-67-9	0.36	NA
		Ethylbenzene	100-41-4	0.057	10.0
		Naphthalene	91-20-3	0.059	5.6

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ²	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
Humber	of regulatory subcategory	Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Toluene	108-93-2	0.08	10.0
		Xylenes- mixed isomers (sum of o-, m-, and p- xylene concentrations)	1330-20-7	0.32	30.0
		Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
		Cyanides (total) ⁷	57-12-5	1.2	590.0
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	11.0 mg/L TCLP
K060	Ammonia still lime sludge from	Benzene	71-43-2	0.14	10.0
	coking operations	Benzo(a)pyrene	50-32-8	0.061	3.4
		Naphthalene	91-20-3	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Cyanides (total) ⁷	57-12-5	1.2	590.0
K061	Emission control dust or sludge	Antimony	7440-36-0	NA	1.15 mg/L TCLP
	from the primary production of	Arsenic	7440-38-2	NA	5.0 mg/L TCLP
	steel in electric furnaces	Barium	7440-39-3	NA	21.0 mg/L TCLP
		Beryllium	7440-41-7	NA	1.22 mg/L TCLP
		Cadmium	7440-43-9	0.69	0.11 mg/L TCLP

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous				Concentration ³ in	Concentration ⁵ in mg/kg unless noted as
waste	Waste description and treatment		CAS ²	mg/L; or technology	"mg/L TCLP"; or
number	or regulatory subcategory ¹	Common name	number	code ⁴	technology code 4
		Chromium (total)	7440-47-3	2.77	0.6 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	0.2 mg/L TCLP
		Zinc	7440-66-6	NA	4.3 mg/L TCLP
K062	Spent pickle liquor generated by steel finishing operations of	Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
	facilities within the iron and steel industry (SIC Codes 331X and	Lead	7439-92-1	0.69	0.75 mg/L TCLP
	332X)	Nickel	7440-02-0	3.98	NA
K069	Emission control dust/sludgedust or sludge from secondary lead	Cadmium	7440-43-9	0.69	0.11 mg/L TCLP
	smelting- calcium sulfate (low lead) subcategory	Lead	7439-92-1	0.69	0.75 mg/L TCLP
	Emission control dust/sludgedust or sludge from secondary lead smelting- non-calcium sulfate (high lead) subcategory	NA	NA	NA	RLEAD

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
K071	K071 (brine purification muds from the mercury cell process in chlorine production, where separate prepurified brine is not used) nonwastewaters that are residues from RMERC	Mercury	7439-97-6	NA	0.2 mg/L TCLP
	K071 (brine purification muds from the mercury cell process in chlorine production, where separate prepurified brine is not used) nonwastewaters that are not residues from RMERC	Mercury	7439-97-6	NA	0.2 mg/L TCLP
	All K071 wastewaters	Mercury	7439-97-6	0.15	NA
K073	Chlorinated hydrocarbon waste	Carbon tetrachloride	56-23-5	0.057	6.0
	from the purification step of the	Chloroform	67-66-3	0.046	6.0
	diaphragm cell process using	Hexachloroethane	67-72-1	0.055	30.0
	graphite anodes in chlorine	Tetrachloroethylene	127-18-4	0.056	6.0
	production	1,1,1-Trichloroethane	71-55-6	0.054	6.0
K083	Distillation bottoms from aniline	Aniline	62-53-3	0.81	14.0
	production	Benzene	71-43-2	0.14	10.0
		Cyclohexanone	108-94-1	0.36	NA

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	13.0
		Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	13.0
		Nitrobenzene	98-95-3	0.068	14.0
		Phenol	108-95-2	0.039	6.2
		Nickel	7440-02-0	3.98	11.0 mg/L TCLP
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
K085	Distillation or fractionation	Benzene	71-43-2	0.14	10.0
	column bottoms from the	Chlorobenzene	108-90-7	0.057	6.0
	production of chlorobenzenes	m-Dichlorobenzene	541-73-1	0.036	6.0
		o-Dichlorobenzene	95-50-1	0.088	6.0
		p-Dichlorobenzene	106-46-7	0.09	6.0
		Hexachlorobenzene	118-74-1	0.055	10.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		Total PCBs (sum of all PCB isomers, or all arclors)	1336-36-3	0.1	10.0
		Pentachlorobenzene	608-93-5	0.055	10.0
		1,2,4,5- Tetrachlorobenzene	95-94-3	0.055	14.0
		1,2,4-Trichlorobenzene	120-82-1	0.055	19.0
K086	Solvent waste and sludges,	Acetone	67-64-1	0.28	160.0
	caustic washes and sludges, or	Acetophenone	96-86-2	0.01	9.7
	water washes and sludges from cleaning tubs and equipment used	bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28.0
	in the formulation of ink	n-Butyl alcohol	71-36-3	5.6	2.6
	from pigments, driers, soaps, and	Butylbenzyl phthalate	85-68-7	0.017	28.0
	stabilizers containing chromium	Cyclohexanone	108-94-1	0.36	NA
	and lead	o-Dichlorobenzene	95-50-1	0.088	6.0
		Diethyl phthalate	84-66-2	0.2	28.0
		Dimethyl phthalate	131-11-3	0.047	28.0
		Di-n-butyl phthalate	84-74-2	0.057	28.0
		Di-n-octyl phthalate	117-84-0	0.017	28.0
		Ethyl acetate	141-78-6	0.34	33.0
		Ethylbenzene	100-41-4	0.057	10.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste	Waste description and treatment		CAS ²	Concentration ³ in mg/L; or technology	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or
number	or regulatory subcategory 1	Common name	number	code ⁴	technology code 4
		Methanol	67-56-1	5.6	NA
		Methyl ethyl ketone	78-93-3	0.28	36.0
		Methyl isobutyl ketone	108-10-1	0.14	33.0
		Methylene chloride	75-09-2	0.089	30.0
		Naphthalene	91-20-3	0.059	5.6
		Nitrobenzene	98-95-3	0.068	14.0
		Toluene	108-88-33	0.08	10.0
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
		Tetrachloroethylene	79-01-6	0.054	6.0
		Xylenes- mixed isomers (sum of o-, m-, and p- xylene concentrations)	1330-20-7	0.32	30.0
		Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
		Cyanides (total) ⁷	57-12-5	1.2	590.0
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
K087	Decanter tank tar from coking	Acenaphthylene	208-96-8	0.059	3.4
	operations	Benzene	71-43-2	0.14	10.0
		Chrysene	218-01-9	0.059	3.4
		Fluoranthene	206-44-0	0.068	3.4
		Indeno(1,2,3-c,d)pyrene	193-39-5	0.0055	3.4

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Toluene	108-88-3	0.08	10.0
		Xylenes- mixed isomers (sum of o-, m-, and p- xylene concentrations)	1330-20-7	0.32	30.0
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
K088	Spent potliners from primary	Acenaphthene	83-32-9	0.059	3.4
	aluminum reduction	Anthracene	120-12-7	0.059	3.4
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Benzo(b)fluoranthene	205-99-2	0.11	6.8
		Benzo(k)fluoranthene	207-08-9	0.11	6.8
		Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Fluoranthene	206-44-0	0.068	3.4
		Indeno(1,2,3-c,d)pyrene	193-39-5	0.0055	3.4
		Phenanthrene	85-01-8	0.059	5.6
		Pyrene	129-00-0	0.067	8.2

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous				Concentration ³ in	Concentration 5 in mg/kg unless noted as
waste	Waste description and treatment		CAS ²	mg/L; or technology	"mg/L TCLP"; or
number	or regulatory subcategory ¹	Common name	number	code ⁴	technology code 4
		Antimony	7440-36-0	1.9	1.15 mg/L TCLP
		Arsenic	7440-38-2	1.4	26.1
		Barium	7440-39-3	1.2	21.0 mg/L TCLP
		Beryllium	7440-41-7	0.82	1.22 mg/L TCLP
		Cadmium	7440-43-9	0.69	0.11 mg/L TCLP
		Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
		Mercury	7439-97-6	0.15	0.025 mg/L TCLP
		Nickel	7440-02-0	3.98	11.0 mg/L TCLP
		Selenium	7782-49-2	0.82	5.7 mg/L TCLP
		Silver	7440-22-4	0.43	0.14 mg/L TCLP
		Cyanides (total) ⁷	57-12-5	1.2	590.0
		Cyanides (amenable) ⁷	57-12-5	0.86	30.0
		Fluoride	16964-48-8	35.0	NA
K093	Distillation light ends from the production of phthalic anhidride from ortho-xylene	Phthalic anhydride (measured as phthalic acid or terephthalic acid)	100-21-0	0.055	28.0
		Phthalic anhydride (measured as phthalic acid or terephthalic acid)	85-44-9	0.055	28.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
K094	Distillation bottoms from the production of phthalic anhidride from ortho-xylene	Phthalic anhydride (measured as phthalic acid or terephthalic acid)	100-21-0	0.055	28.0
		Phthalic anhydride (measured as phthalic acid or terephthalic acid)	85-44-9	0.055	28.0
K095	Distillation bottoms from the	Hexachloroethane	67-72-1	0.055	30.0
	production of	Pentachloroethane	76-01-7	NA	6.0
	1,1,1-trichloroethane	1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
		1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		Trichloroethylene	79-01-6	0.054	6.0
K096	Heavy ends from the heavy end	m-Dichlorobenzene	541-73-1	0.036	6.0
	production of	Pentachloroethane	76-01-7	0.055	6.0
	1,1,1-trichloroethane	1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
		1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,2,4-Trichlorobenzene	120-82-1	0.055	19.0
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		Trichloroethylene	79-01-6	0.054	6.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
K097	Vacuum stripper discharge from the chlordane chlorinator in the	Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
	production of chlordane	Heptachlor	76-44-8	0.0012	0.066
		Heptachlor epoxide	1024-57-3	0.016	0.066
		Hexachloro cyclopentadiene	77-47-4	0.057	2.4
K098	Untreated process wastewater from the production of toxaphene	Toxaphene	8001-35-2	0.0095	2.6
K099	Untreated process wastewater from the production of 2,4-D	2,4- Dichloro phenoxyacetic acid	94-75-7	0.72	10.0
		HxCDDs (all Hexachloro dibenzo-p-dioxins)	NA	0.000063	0.001
		HxCDFs (all Hexachloro dibenzofurans)	NA	0.000063	0.001
		PeCDDs (all Pentachloro dibenzo-p-dioxins)	NA	0.000063	0.001
		PeCDFs (all Pentachloro dibenzofurans)	NA	0.000063	0.001
		TCDDs (all Tetrachloro dibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (all Tetrachloro dibenzofurans)	NA	0.000063	0.001

		Regulated hazardous c	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
K100	Waste leaching solution from acid leaching of emission control	Cadmium	7440-43-9	0.69	0.11 mg/L TCLP
	dust or sludge from secondary	Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
	lead smelting	Lead	7439-92-1	0.69	0.75 mg/L TCLP
K101	Distillation tar residues from the distillation of aniline-based	o-Nitroaniline	88-74-4	0.27	14.0
	compounds in the production of	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
	veterinary pharmaceuticals from	Cadmium	7440-43-9	0.69	NA
	arsenic or organo-arsenic	Lead	7439-92-1	0.69	NA
	compounds	Mercury	7439-97-6	0.15	NA
K102	Residues from the use of activated carbon for	o-Nitrophenol	88-75-5	0.028	13.0
	decolonization in the production	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
	of veterinary pharmaceuticals	Cadmium	7440-43-9	0.69	NA
	from arsenic or organo-arsenic	Lead	7439-92-1	0.69	NA
	compounds	Mercury	7439-97-6	0.15	NA
K103	Process residues from aniline	Aniline	62-53-3	0.81	14.0
	extraction from the production of	Benzene	71-43-2	0.14	10.0
	aniline	2,4-Dinitrophenol	51-28-5	0.12	160.0
		Nitrobenzene	98-95-3	0.068	14.0
		Phenol	108-95-2	0.039	6.2

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste	Waste description and treatment		CAS ²	Concentration ³ in mg/L; or technology	Concentration 5 in mg/kg unless noted as "mg/L TCLP"; or
number	or regulatory subcategory ¹	Common name	number	code ⁴	technology code ⁴
K104	Combined wastewater streams	Aniline	62-53-3	0.81	14.0
	generated from nitrobenzene	Benzene	71-43-2	0.14	10.0
	or aniline production	2,4-Dinitrophenol	51-28-5	0.12	160.0
		Nitrobenzene	98-95-3	0.068	14.0
		Phenol	108-95-2	0.039	6.2
		Cyanides (total) ⁷	57-12-5	1.2	590.0
K105	Separated aqueous stream from	Benzene	71-43-2	0.14	10.0
	the reactor product washing step	Chlorobenzene	108-90-7	0.057	6.0
	in the production of	2-Chlorophenol	95-57-8	0.044	5.7
	chlorobenzenes	o-Dichlorobenzene	95-50-1	0.088	6.0
		p-Dichlorobenzene	106-46-7	0.9	6.0
		Phenol	108-95-2	0.039	6.2
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
K106	K106 (wastewater treatment sludge from the mercury cell process in chlorine production) nonwastewaters that contain greater than or equal to 260.0 mg/kg total mercury	Mercury	7439-97-6	NA	RMERC
	K106 (wastewater treatment sludge from the mercury cell process in chlorine production) nonwastewaters that contain less than 260.0 mg/kg total mercury that are residues from RMERC	Mercury	7439-97-6	NA	0.02 mg/L TCLP
	Other K106 nonwastewaters that contain less than 260.0 mg/kg total mercury that 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

		Regulated hazardous c	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
K108	Condensed column overheads from production 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	2,4-Dinitrotoluene	121-14-2 606-20-2	0.32	140.0 28.0
K112	nitration of toluene Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene	2,6-Dinitrotoluene NA	NA	0.55 CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST

		Regulated hazardous c	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
K113	Condensed liquid light ends from the purification of toluenediamine via hydrogenation of dinitrotoluene	NA	NA	CARBN; or CMBST	CMBST
K114	Vicinals from the purification of toluenediamine via hydrogenation of dinitrotoluene	NA	NA	CARBN; or CMBST	CMBST
K115	Heavy ends from the purification of toluenediamine in the	Nickel	7440-02-0	3.98	11.0 mg/L TCLP
	production of toluenediamine via hydrogenation of dinitrotoluene	NA	NA	CARBN; or CMBST	CMBST
K116	Organic condensate from the solvent recovery column in the production of toluene diidocyanate via phosgenation of toluenediamine	NA	NA	CARBN; or CMBST	CMBST
K117	Wastewater from the reactor vent gas scrubber in the production of	Methyl bromide (Bromomethane)	74-83-9	0.11	15.0
	ethylene dibromide via	Chloroform	67-66-3	0.046	6.0
	bromination of ethene	Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
K118	Spent absorbent solids from purification of ethylene	Methyl bromide (Bromomethane)	74-83-9	0.11	15.0
	dibromide in the production of	Chloroform	67-66-3	0.046	6.0
	ethylene dibromide via bromination of ethene	Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15.0
K123	Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylene bisdithiocarbamic acid and its salts	NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
K124	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts	NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
K125	Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts	NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
K126	Baghouse dust and floor sweepings in milling and packaging operations in the production of formulation of ethylenebisdithiocarbamic acid and its salts	NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
K131	Wastewater from the reactor and spent sulfuring acid from the acid dryer from the production of methyl bromide	Methyl bromide (Bromomethane)	74-83-9	0.11	15.0
K132	Spent absorbent and wastewater separator solids from the production of methyl bromide	Methyl bromide (Bromomethane)	74-83-9	0.11	15.0
K136	Still bottoms from the purification of ethylene	Methyl bromide (Bromomethane)	74-83-9	0.11	15.0
	dibromide in the production of	Chloroform	67-66-3	0.046	6.0
	ethylene dibromide via bromination of ethene	Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15.0
K141	Process residues from the	Benzene	71-43-2	0.14	10.0
	recovery of coal tar, including	Benz(a)anthracene	56-55-3	0.059	3.4
	but not limited to, collecting	Benzo(a)pyrene	50-2-8	0.061	3.4

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
	sump residues from the production of coke by-products produced from coal. This listing does not include K087 (decanter	Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
	tank tar sludge from coking operations).	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-c,d)pyrene	193-39-5	0.0055	3.4
K142	Tar storage tank residues from	Benzene	71-43-2	0.14	10.0
	the production of coke from coal	Benz(a)anthracene	56-55-3	0.059	3.4
	tar or from the recovery of coke	Benzo(a)pyrene	50-32-8	0.061	3.4
	by-products produced from coal.	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

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Indeno(1,2,3-c,d)pyrene	193-39-5	0.0055	3.4
K143	Process residues from the	Benzene	71-43-2	0.14	10.0
	recovery of light oil, including	Benz(a)anthracene	56-55-3	0.059	3.4
	but not limited to, those	Benzo(a)pyrene	50-32-8	0.061	3.4
	generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal	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
K144	Wastewater sump residues from	Benzene	71-43-2	0.14	10.0
	light oil refining, including but	Benz(a)anthracene	56-55-3	0.059	3.4
	not limited to, intercepting or	Benzo(a)pyrene	50-32-8	0.061	3.4
	contamination sump sludges from the recovery of coke by-products produced from coal	Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
K145	Residues from naphthalene	Benzene	71-43-2	0.14	10.0
	collection and recovery	Benz(a)anthracene	56-55-3	0.059	3.4
	operations from the recovery of	Benzo(a)pyrene	50-32-8	0.061	3.4
	coke by-products produced from	Chrysene	218-01-9	0.059	3.4
	coal	Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Naphthalene	91-20-3	0.059	5.6
K147	Tar storage tank residues from	Benzene	71-43-2	0.14	10.0
	coal tar refining	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

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		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-c,d)pyrene	193-39-5	0.0055	3.4
K148	Residues from coal tar	Benz(a)anthracene	56-55-3	0.059	3.4
	distillation, including but not	Benzo(a)pyrene	50-32-8	0.061	3.4
	limited to, still bottoms	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-c,d)pyrene	193-39-5	0.0055	3.4

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous				Concentration ³ in	Concentration 5 in mg/kg unless noted as
waste	Waste description and treatment		CAS ²	mg/L; or technology	"mg/L TCLP"; or
number	or regulatory subcategory ¹	Common name	number	code ⁴	technology code ⁴
K149	Distillation bottoms from the production of alpha- (or methyl-)	Chlorobenzene	108-90-7	0.057	6.0
	chlorinated toluenes,	Chloroform	67-66-3	0.046	6.0
	ring-chlorinated toluenes,	Chloromethane	74-87-3	0.19	30.0
	benzoyl chlorides, and	p-Dichlorobenzene	106-46-7	0.09	6.0
	compounds with mixtures of	Hexachlorobenzene	118-74-1	0.055	10.0
	these functional groups. (This	Pentachlorobenzene	608-93-5	0.055	10.0
	waste does not include still bottoms from the distillation of	1,2,4,5- Tetrachlorobenzene	95-94-3	0.055	14.0
	benzyl chloride.)	Toluene	108-88-3	0.08	10.0
K150	Organic residuals, excluding	Carbon tetrachloride	56-23-5	0.057	6.0
	spent carbon adsorbent, from the	Chloroform	67-66-3	0.046	6.0
	spent chlorine gas and	Chloromethane	74-87-3	0.19	30.0
	hydrochloric acid recovery	p-Dichlorobenzene	106-46-7	0.09	6.0
	processes associated with the	Hexachlorobenzene	118-74-1	0.055	10.0
	production of alpha- (or methyl-)	Pentachlorobenzene	608-93-5	0.055	10.0
	chlorinated toluenes,	1,2,4,5-	95-94-3	0.055	14.0
	ring-chlorinated toluenes,	Tetrachlorobenzene			
	benzoyl chlorides, and	1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0
	compounds with mixtures of	Tetrachloroethylene	127-18-4	0.056	6.0

		Regulated hazardous c	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
	these functional groups.	1,2,4-Trichlorobenzene	120-82-1	0.055	19.0
K151	Wastewater treatment sludges, excluding neutralization and	Benzene	71-43-2	0.14	10.0
	biological sludges, generated during the treatment of	Carbon tetrachloride	56-23-5	0.057	6.0
	wastewaters from the production	Chloroform	67-66-3	0.046	6.0
	of alpha- (or methyl-)	Hexachlorobenzene	118-74-1	0.055	10.0
	chlorinated toluenes,	Pentachlorobenzene	608-93-5	0.055	10.0
	ring-chlorinated toluenes, benzoyl chlorides, and	1,2,4,5- Tetrachlorobenzene	95-94-3	0.055	14.0
	compounds with mixtures of	Tetrachloroethylene	127-18-4	0.056	6.0
	these functional groups.	Toluene	108-88-3	0.08	10.0
K156	Organic waste (including heavy	Acetonitrile	75-05-8	5.6	1.8
	ends, still bottoms, light ends,	Acetophenone	98-86-2	0.01	9.7
	spent solvents, filtrates, and	Aniline	62-53-3	0.81	14.0
	decantates) from the production of carbamates and carbamoyl oximes.	Benomyl ¹⁰	17804-35-2	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Benzene	71-43-2	0.14	10.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		Carbaryl ¹⁰	63-25-2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
		Carbenzadim ¹⁰	10605-21-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Carbofuran ¹⁰	1563-66-2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
		Carbosulfan ¹⁰	55285-14-8	0.028; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Chlorobenzene	108-90-7	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		o-Dichlorobenzene	95-50-1	0.088	6.0
		Methomyl ¹⁰	16752-77-5	0.028; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
		Methylene chloride	75-09-2	0.089	30.0
		Methyl ethyl ketone	78-93-3	0.28	36.0
		Naphthalene	91-20-3	0.059	5.6
		Phenol	108-95-2	0.039	6.2

		Regulated hazardous c	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		Pyridine	110-86-1	0.014	16.0
		Toluene	108-88-3	0.08	10.0
		Triethylamine	121-44-8	0.081; or CMBST, CHOXD, BIODG or CARBN	1.5; or CMBST
K157	Wastewaters (including scrubber	Carbon tetrachloride	56-23-5	0.057	6.0
	waters, condenser waters,	Chloroform	67-66-3	0.046	6.0
	washwaters, and separation	Chloromethane	74-87-3	0.19	30.0
	waters) from the production of carbamates and carbamoyl oximes.	Methomyl ¹⁰	16752-77-5	0.028; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
		Methylene chloride	75-09-2	0.089	30.0
		Methyl ethyl ketone	78-93-3	0.28	36.0
		Pyridine	110-86-1	0.014	16.0
		Triethylamine	121-44-8	0.081 or CMBST, CHOXD, BIODG or CARBN	1.5; or CMBST

		Regulated hazardous c	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
K158	Baghouse dusts and filter or	Benzene	71-43-2	0.14	10.0
	separation solids from the production of carbamates and carbamoyl oximes.	Carbenzadim ¹⁰	10605-21-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Carbofuran ¹⁰	1563-66-2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
		Carbosulfan ¹⁰	55285-14-8	0.028; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Chloroform	67-66-3	0.046	6.0
		Methylene chloride	75-09-2	0.089	30.0
		Phenol	108-95-2	0.039	6.2
K159	Organics from the treatment of	Benzene	71-43-2	0.14	10.0
	thiocarbamates	Butylate ¹⁰	2008-41-5	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		EPTC (Eptam) 10	759-94-4	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Molinate 10	2212-67-1	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		Pebulate ¹⁰	1114-71-2	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Vernolate ¹⁰	1929-77-7	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
K161	Purification solids (including	Antimony	7440-36-0	1.9	1.15 mg/L TCLP
	filtration, evaporation, and	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
	centrifugation solids), baghouse	Carbon disulfide	75-15-0	3.8	4.8 mg/L TCLP
	dust, and floor sweepings from the production of dithiocarbamate acids and their salts	Dithiocarbamates (total) 10	NA	0.028; or CMBST, CHOXD, BIODG or CARBN	28.0; or CMBST
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
		Nickel	7440-02-0	3.98	11.0 mg/L TCLP
		Selenium	7782-49-2	0.82	5.7 mg/L TCLP
K169	Crude oil tank sediment from	Benz(a)anthracene	56-55-3	0.059	3.4
	petroleum refining operations	Benzene	71-43-2	0.14	10.0
		Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
		Chrysene	218-01-9	0.059	3.4
		Ethyl benzene	100-41-4	0.057	10.0
		Fluorene	86-73-7	0.059	3.4

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Pyrene	129-00-0	0.067	8.2
		Toluene (Methyl benzene)	108-88-3	0.08	10.0
		Xylenes (total)	1330-20-7	0.32	30.0
K170	Clarified slurry oil sediment from	Benz(a)anthracene	56-55-3	0.059	3.4
	petroleum refining operations	Benzene	71-43-2	0.14	10.0
		Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Ethyl benzene	100-41-4	0.057	10.0
		Fluorene	86-73-7	0.059	3.4
		Indeno(1,2,3-c,d)pyrene	193-39-5	0.0055	3.4
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Pyrene	129-00-0	0.067	8.2
		Toluene (Methyl benzene)	108-88-3	0.08	10.0
		Xylenes (total)	1330-20-7	0.32	30.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
K171	Spent hydrotreating catalyst from	Benz(a)anthracene	56-55-3	0.059	3.4
	petroleum refining operations,	Benzene	71-43-2	0.14	10.0
	including guard beds used to	Chrysene	218-01-9	0.059	3.4
	desulfurize feeds to other	Ethyl benzene	100-41-4	0.057	10.0
	catalytic reactors. (This beds	Naphthalene	91-20-3	0.059	5.6
	used to desulfurize feeds to other	Phenanthrene	85-01-8	0.059	5.6
	eatalytic reactors. (This listing	Pyrene	129-00-0	0.067	8.2
	does not include inert support media.)	Toluene (Methyl benzene)	108-88-3	0.08	10.0
		Xylenes (total)	1330-20-7	0.32	30.0
		Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
		Nickel	7440-02-0	3.98	11.0 mg/L TCLP
		Vanadium	7440-62-2	4.3	1.6 mg/L TCLP
		Reactive sulfides	NA	DEACT	DEACT
K172	Spent hydrorefining catalyst	Benzene	71-43-2	0.14	10.0
	from petroleum refining	Ethyl benzene	100-41-4	0.057	10.0
	operations, including guard beds used to desulfurize feeds to other	Toluene (Methyl benzene)	108-88-3	0.08	10.0
	catalytic reactors. (This listing	Xylenes (total)	1330-20-7	0.32	30.0
	does not include inert support	Antimony	7440-36-0	1.9	1.15 mg/L TCLP

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
	media.)	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
		Nickel	7440-02-0	3.98	11.0 mg/L TCLP
		Vanadium	7440-62-2	4.3	1.6 mg/L TCLP
		Reactive sulfides	NA	DEACT	DEACT
K174	Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer.	1,2,3,4,6,7,8- Heptachloro dibenzo-p-dioxin (1,2,3,4,6,7,8-HpCCD)	35822-46-9	0.000035 or CMBST ¹¹	0.0025 or CMBST ¹¹
		1,2,3,4,6,7,8- Heptachloro dibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562-39-4	0.000035 or CMBST ¹¹	0.0025 or CMBST ¹¹
		1,2,3,4,7,8,9- Heptachloro dibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673-89-7	0.000035 or CMBST ¹¹	0.0025 or CMBST ¹¹
		HxCDDs (all Hexachloro dibenzo-p-dioxins)	34465-46-8	0.000063 or CMBST ¹¹	0.001 or MBST ¹¹
		HxCDFs (all Hexachloro dibenzofurans)	55684-94-1	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹
		1,2,3,4,6,7,8,9- Octachlorodibenzo-p- dioxin (OCDD)	3268-87-9	0.000063 or CMBST ¹¹	0.0025 or CMBST ¹¹

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		1,2,3,4,6,7,8,9- Octachlorodibenzofuran (OCDF)	39001-02-0	0.000063 or CMBST ¹¹	0.005 or CMBST ¹¹
		PeCDDs (all Pentachloro dibenzo-p-dioxins)	36088-22-9	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹
		PeCDFs (all Pentachloro dibenzofurans)	30402-15-4	0.000035 or CMBST ¹¹	0.001 or CMBST ¹¹
		TCDDs (all Tetrachloro dibenzo-p-dioxins)	41903-57-5	0.000063 or CMBST ¹¹	0.001 or CMBST 11
		TCDFs (all Tetrachloro dibenzofurans)	55722-27-5	0.000063 or CMBST ¹¹	0.001 or CMBST 11
		Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
K175	Wastewater treatment sludge from the production of vinyl	Mercury ¹²	7438-97-6	NA	0.025 mg/L TCLP
	chloride monomer using mercuric chloride catalyst in an acetylene-based process.	pH ¹²		NA	pHless than or equal to 6.0
	All K175 wastewaters	Mercury	7438-97-6	0.15	NA
K176	Baghouse filters from the production of antimony oxide,	Antimony	7440-36-0	1.9	1.15 mg/L TCLP
	including filters from the	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
	production of intermediates (e.g.,	Cadmium	7440-43-9	0.69	0.11 mg/L TCLP

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
	antimony metal or crude	Lead	7439-92-1	0.69	0.75 mg/L TCLP
	antimony oxide).	Mercury	7438-97-6	0.15	0.025 mg/L TCLP
K177	Slag from the production of antimony oxide that is	Antimony	7440-36-0	1.9	1.15 mg/L TCLP
	speculatively accumulated or disposed, including slag from the	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
	production of intermediates (e.g., antimony metal or crude antimony oxide).	Lead	7439-92-1	0.069	0.75 mg/L TCLP
K178	Residues from manufacturing and manufacturing-site storage of ferric chloride from acids formed	dibenzo-p-dioxin	35822-46-9	0.000035 or CMBST ¹¹	0.0025 orC MBST ¹¹
	during the production of titanium dioxide using the chloride-ilmenite process.	1,2,3,4,6,7,8- Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562-39-4	0.000035 or CMBST ¹¹	0.0025 or CMBST ¹¹
		1,2,3,4,7,8,9- Heptachlorodibenzo furan (1,2,3,4,7,8,9-HpCDF)	55673-89-7	0.000035 or CMBST ¹¹	0.0025 or CMBST ¹¹
		HxCDDs (all Hexachloro dibenzo-p-dioxins)	34465-46-8	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹
		HxCDFs (all Hexachloro dibenzofurans)	55684-94-1	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
		1,2,3,4,6,7,8,9- Octachlorodibenzo-p- dioxin (OCDD)	3268-87-9	0.000063 or CMBST ¹¹	0.005 or CMBST ¹¹
		1,2,3,4,6,7,8,9- Octachlorodibenzofuran (OCDF)	39001-02-0	0.000063 or CMBST ¹¹	0.005 or CMBST ¹¹
		PeCDDs (all Pentachloro dibenzo-p-dioxins)	36088-22-9	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹
		PeCDFs (all Pentachloro dibenzofurans)	30402-15-4	0.000035 or CMBST ¹¹	0.001 or CMBST ¹¹
		TCDDs (all Tetrachloro dibenzo-p-dioxins)	41903-57-5	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹
		TCDFs (all Tetrachloro dibenzofurans)	55722-27-5	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹
		Thallium	7440-28-0	1.4	0.20 mg/L TCLP
K181	Nonwastewaters from the production of dyes or pigments (including nonwastewaters	Aniline	62-53-3	0.81	14.0
	comingled at the point of generation with nonwastewaters from other processes) that, at the	o-Anisidine (2-Methoxyaniline)	90-04-0	0.010	0.66
	point of generation, contain mass loadings of any of the	4-Chloroaniline	106-47-8	0.46	16.0

		Regulated hazardous c	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
	constituents identified in paragraph (C) of rule 3745-51-32	p-Cresidine	120-71-8	0.010	0.66
	of the Administrative Code that are equal to or greater than the	2,4-Dimethylaniline (2,4-Xylidine)	95-68-1	0.010	0.66
	corresponding levels in paragraph (C) of rule 3745-51-32 of the Administrative Code as determined on a calendar year	1,2-Phenylenediamine	95-54-5	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN
	basis.	1,3-Phenylenediamine	108-45-2	0.010	0.66
P001	Warfarin, and salts, when present at concentrations greater than 0.3 per cent	Warfarin	81-81-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P002	1-Acetyl-2-thiourea	1-Acetyl-2-thiourea	591-08-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P003	Acrolein	Acrolein	107-02-8	0.29	CMBST
P004	Aldrin	Aldrin	309-00-2	0.021	0.066
P005	Allyl alcohol	Allyl alcohol	107-18-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P006	Aluminum phosphide	Aluminum phosphide	20859-73-8	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
P007	5-Aminomethyl 3-isoxazolol	5-Aminomethyl 3- isoxazolol	2763-96-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P008	4-Aminopyridine	4-Aminopyridine	504-24-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P009	Ammonium picrate	Ammonium picrate	131-74-8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P010	Arsenic acid	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
P011	Arsenic pentoxide	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
P012	Arsenic trioxide	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
P013	Barium cyanide	Barium	7440-39-3	NA	21.0 mg/L TCLP
		Cyanides (total) 7	57-12-5	1.2	590.0
		Cyanide (amenable) ⁷	57-12-5	0.86	30.0
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

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
P017	Bromoacetone	Bromoacetone	598-31-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P018	Brucine	Brucine	357-57-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P020	2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	2-sec-Butyl-4,6- dinitrophenol (Dinoseb)	88-85-7	0.66	2.5
P021	Calcium cyanide	Cyanides (total) ⁷	57-12-5	1.2	590.0
		Cyanide (amenable) ⁷	57-12-5	0.86	30.0
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	16.0
P026	1-(o-Chlorophenyl)thiourea	1-(o-Chlorophenyl) thiourea	5344-82-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
P027	3-Chloropropionitrile	3-Chloropropionitrile	542-76-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P028	Benzyl chloride	Benzyl chloride	100-44-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P029	Copper cyanide	Cyanides (total) ⁷	57-12-5	1.2	590.0
		Cyanides (amenable) ⁷	57-12-5	0.86	30.0
P030	Cyanides (soluble salts and	Cyanides (total) ⁷	57-12-5	1.2	590.0
	complexes)	Cyanides (amenable) ⁷	57-12-5	0.86	30.0
P031	Cyanogen	Cyanogen	460-19-5	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
P033	Cyanogen chloride	Cyanogen chloride	506-77-4	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
P034	2-Cyclohexyl-4,6-dinitrophenol	2-Cyclohexyl- 4,6-dinitrophenol	131-89-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P036	Dichlorophenylarsine	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
P037	Dieldrin	Dieldrin	60-57-1	0.017	0.13
P038	Diethylarsine	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
P039	Disulfoton	Disulfoton	298-04-4	0.017	6.2

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
P040	0,0-Diethyl O-pyrazinyl phosphorothioate	0,0-Diethyl O-pyrazinyl phosphorothioate	297-97-2	CARBN; or CMBST	CMBST
P041	Diethyl-p-nitrophenyl phosphate	Diethyl-p-nitrophenyl phosphate	311-45-5	CARBN; or CMBST	CMBST
P042	Epinephrine	Epinephrine	51-43-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P043	Diisopropylfluorophosphate (DFP)	Diisopropylfluoro phosphate (DFP)	55-91-4	CARBN; or CMBST	CMBST
P044	Dimethoate	Dimethoate	60-51-5	CARBN; or CMBST	CMBST
P045	Thiofanox	Thiofanox	39196-18-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P046	alpha, alpha- Dimethylphenethylamine	alpha, alpha- Dimethylphenethylamine	122-09-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P047	4,6-Dinitro-o-cresol	4,6-Dinitro-o-cresol	543-52-1	0.28	160.0
	4,6-Dinitro-o-cresol salts	NA	NA	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P048	2,4-Dinitrophenol	2,4-Dinitrophenol	51-28-5	0.12	160.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
P049	Dithiobiuret	Dithiobiuret	541-53-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P050	Endosulfan	Endosulfan I	939-98-8	0.023	0.066
		Endosulfan II	33213-6-5	0.029	0.13
		Endosulfan sulfate	1031-07-8	0.029	0.13
P051	Endrin	Endrin	72-20-8	0.0028	0.13
		Endrin aldehyde	7421-93-4	0.025	0.13
P054	Aziridine	Aziridine	151-56-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P056	Fluorine	Fluoride (measured in wastewaters only)	16964-48-8	35.0	ADGAS fb NEUTR
P057	Fluoroacetamide	Fluoroacetamide	640-19-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P058	Fluoroacetic acid, sodium salt	Fluoroacetic acid, sodium salt	62-74-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P059	Heptachlor	Heptachlor	76-44-8	0.0012	0.066
		Heptachlor epoxide	1024-57-3	0.016	0.066
P060	Isodrin	Isodrin	465-73-6	0.021	0.066

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
P062	Hexaethyl tetraphosphate	Hexaethyltetraphosphate	757-58-4	CARBN; or CMBST	CMBST
P063	Hydrogen cyanide	Cyanides (total) 7	57-12-5	1.2	590.0
		Cyanide (amenable) ⁷	57-12-5	0.86	30.0
P064	Isocyanic acid, ethyl ester	Isocyanic acid, ethyl ester	624-83-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P065	Mercury fulminate nonwastewaters, regardless of their total mercury content, that are not incinerator residues or are not residues from RMERC	Mercury	7439-97-6	NA	IMERC
	Mercury fulminate nonwastewaters that are either incinerator residues or are residues from RMERC, equal to 260.0 mg/kg total mercury	Mercury	7439-97-6	NA	RMERC
	Mercury fulminate nonwastewaters that are residues from RMERC and contain less than 260.0 mg/kg total mercury	Mercury	7439-97-6	NA	0.2 mg/L TCLP

		Regulated hazardous c	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
	Mercury fulminate nonwastewaters that are incinerator residues and contain less than 260.0 mg/kg total mercury	Mercury	7439-97-6	NA	0.25 mg/L TCLP
	All mercury fulminate wastewaters	Mercury	7439-97-6	0.15	NA
P066	Methomyl	Methomyl	16752-77-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P067	2-Methyl-aziridine	2-Methyl-aziridine	75-55-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P068	Methyl hydrazine	Methyl hydrazine	60-34-4	CHODX; CHRED; CARBN; BIODG; or CMBST	CHODX; CHRED; or CMBST
P069	2-Methyllactonitrile	2-Methyllactonitrile	75-86-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P070	Aldicarb	Aldicarb	116-06-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P071	Methyl parathion	Methyl parathion	298-00-0	0.014	4.6

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ²	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
P072	1-Naphthyl-2-thiourea	1-Naphthyl-2-thiourea	86-88-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P073	Nickel carbonyl	Nickel	7440-02-0	3.98	11.0 mg/L TCLP
P074	Nickel cyanide	Cyanides (total) 7	57-12-5	1.2	590.0
		Cyanide (amenable) ⁷	57-12-5	0.86	30.0
		Nickel	7440-02-0	3.98	11.0 mg/L TCLP
P075	Nicotine and salts	Nicotine and salts	54-11-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P076	Nitric oxide	Nitric oxide	10102-43-9	ADGAS	ADGAS
P077	p-Nitroaniline	p-Nitroaniline	100-01-6	0.028	28.0
P078	Nitrogen dioxide	Nitrogen dioxide	10102-44-0	ADGAS	ADGAS
P081	Nitroglycerin	Nitroglycerin	55-63-0	CHODX; CHRED; CARBN; BIODG; or CMBST	CHODX; CHRED; or CMBST
P082	N-Nitrosodimethylamine	N-Nitrosodimethylamine	62-75-9	0.4	2.3
P084	N-Nitrosomethylvinylamine	N-Nitrosomethylvinyl amine	4549-40-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P085	Octamethylpyrophosphoramide	Octamethylpyro phosphoramide	152-16-9	CARBN; or CMBST	CMBST

		Regulated hazardous c	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
P087	Osmium tetroxide	Osmium tetroxide	20816-12-0	RMETL; or RTHRM	RMETL; or RTHRM
P088	Endothall	Endothall	145-73-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P089	Parathion	Parathion	56-38-2	0.014	4.6
P092	Phenyl mercuric acetate nonwastewaters, regardless of their total mercury content, that are not incinerator residues or are not residues from RMERC	Mercury	7439-97-6	NA	IMERC; or RMERC
	Phenyl mercuric acetate nonwastewaters that are either incinerator residues or are residues from RMERC, and still contain greater than or equal to 260.0 mg/kg total mercury	Mercury	7439-97-6	NA	RMERC
	Phenyl mercuric acetate nonwastewaters that are residues from RMERC and contain less than 260.0 mg/kg total mercury	Mercury	7439-97-6	NA	0.2 mg/L TCLP

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
	Phenyl mercuric acetate nonwastewaters that are incinerator residues and contain less than 260.0 mg/kg total mercury	Mercury	7439-97-6	NA	0.25 mg/L TCLP
	All phenyl mercuric acetate wastewaters	Mercury	7439-97-6	0.15	NA
P093	Phenylthiourea	Phenylthiourea	103-85-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P094	Phorate	Phorate	298-02-2	0.021	4.6
P095	Phosgene	Phosgene	75-44-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P096	Phosphine	Phosphine	7803-51-2	CHODX; CHRED; CARBN; BIODG; or CMBST	CHODX; CHRED; or CMBST
P097	Famphur	Famphur	52-85-7	0.017	15.0
P098	Potassium cyanide	Cyanides (total) ⁷	57-12-5	1.2	590.0
		Cyanides (amenable) ⁷	57-12-5	0.86	30.0

		Regulated hazardous c	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
P099	Potassium silver cyanide	Cyanides (total) ⁷	57-12-5	1.2	590.0
		Cyanides (amenable) ⁷	57-12-5	0.86	30.0
		Silver	7440-22-4	0.43	0.14 mg/L TCLP
P101	Ethyl cyanide (Propanenitrile)	Ethyl cyanide (Propanenitrile)	107-12-0	0.24	360.0
P102	Propargyl alcohol	Propargyl alcohol	107-19-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P103	Selenourea	Selenium	7782-49-2	0.82	5.7 mg/L TCLP
P104	Silver cyanide	Cyanides (total) ⁷	57-12-5	1.2	590.0
		Cyanides (amenable) ⁷	57-12-5	0.86	30.0
		Silver	7440-22-4	0.43	0.14 mg/L TCLP
P105	Sodium Azide	Sodium Azide	26628-22-8	CHODX; CHRED; CARBN; BIODG; or CMBST	CHODX; CHRED; or CMBST
P106	Sodium cyanide	Cyanides (total) ⁷	57-12-5	1.2	590.0
		Cyanides (amenable) ⁷	57-12-5	0.86	30.0
P108	Strychnine and salts	Strychnine and salts	57-24-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P109	Tetraethyldithiopyrophosphate	Tetraethyldithio pyrophosphate	3689-24-5	CARBN; or CMBST	CMBST

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
P110	Tetraethyl lead	Lead	7439-92-1	0.69	0.75 mg/L TCLP
P111	Tetraethylpyrophosphate	Tetraethylpyrophosphate	107-49-3	CARBN; or CMBST	CMBST
P112	Tetranitromethane	Tetranitromethane	509-14-8	CHODX; CHRED; CARBN; BIODG; or CMBST	CHODX; CHRED; or CMBST
P113	Thallic oxide	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
P114	Thallium selenite	Selenium	7782-49-2	0.82	5.7 mg/L TCLP
P115	Thallium (I) sulfate	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
P116	Thiosemicarbazide	Thiosemicarbazide	79-19-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P118	Trichloromethanethiol	Trichloromethanethiol	75-70-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P119	Ammonium vandate	Vanadium (measured in wastewaters only)	7440-62-2	4.3	STABL
P120	Vanadium pentoxide	Vanadium (measured in wastewaters only)	7440-62-2	4.3	STABL
P121	Zinc cyanide	Cyanides (total) ⁷	57-12-5	1.2	590.0
		Cyanides (amenable) ⁷	57-12-5	0.86	30.0

		Regulated hazardous c	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
P122	Zinc phosphide Zn ₃ P ₂ , when present at concentrations greater than 10.0 per cent	Zinc phosphide	1314-84-7	CHODX; CHRED; or CMBST	CHODX; CHRED; or CMBST
P123	Toxaphene	Toxaphene	8001-35-2	0.0095	2.6
P127	Carbofuran 10	Carbofuran	1563-66-2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
P128	Mexacarbate 10	Mexacarbate	315-18-4	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P185	Tirpate ¹⁰	Tirpate	26419-73-8	0.056; or CMBST, CHOXD, BIODG or CARBN	0.28; or CMBST
P188	Physostigmine salicylate ¹⁰	Physostigmine salicylate	57-64-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P189	Carbosulfan 10	Carbosulfan	55285-14-8	0.028; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P190	Metolcarb ¹⁰	Metolcarb	1129-41-5	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST

		Regulated hazardous c	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
P191	Dimetilan ¹⁰	Dimetilan	644-64-4	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P192	Isolan ¹⁰	Isolan	119-38-0	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P194	Oxamyl ¹⁰	Oxamyl	23135-22-0	0.056; or CMBST, CHOXD, BIODG or CARBN	0.28; or CMBST
P196	Manganese dimethyldithiocarbamate 10	Dithiocarbamates (total)	NA	0.028; or CMBST, CHOXD, BIODG or CARBN	28.0; or CMBST
P197	Formparanate ¹⁰	Formparanate	17702-57-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P198	Formetanate hydrochloride ¹⁰	Formetanate hydrochloride	23422-53-9	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P199	Methiocarb ¹⁰	Methiocarb	2032-65-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P201	Promecarb ¹⁰	Promecarb	2631-37-0	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
P202	m-Cumenyl methylcarbamate 10	m-Cumenyl methylcarbamate	64-00-6	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P203	Aldicarb sulfone 10	Aldicarb sulfone	1646-88-4	0.056; or CMBST, CHOXD, BIODG or CARBN	0.28; or CMBST
P204	Physostigmine ¹⁰	Physostigmine	57-47-6	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P205	Ziram ¹⁰	Dithiocarbamates (total)	NA	0.028; or CMBST, CHOXD, BIODG or CARBN	28.0; or CMBST
U001	Acetaldehyde	Acetaldehyde		(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U002	Acetone	Acetone		0.28	160.0
U003	Acetonitrile	Acetonitrile	75-05-8	5.6	CMBST
		Acetonitrile; alternate ⁶ standard for nonwastewaters only	75-05-8	NA	38.0
U004	Acetophenone	Acetophenone	98-86-2	0.01	9.7
U005	2-Acetylaminofluorene	2-Acetylaminofluorene	53-96-3	0.059	140.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
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	84.0
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	14.0
U014	Auramine	Auramine	492-80-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U015	Azaserine	Azaserine	115-02-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
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	10.0
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

		Regulated hazardous c	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
U026	Chloraphazine	Chloraphazine	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	28.0
U029	Methyl bromide (Bromomethane)	Methyl bromide (Bromomethane)	74-83-9	0.11	15.0
U2030	4-Bromophenyl phenyl ether	4-Bromophenyl phenyl ether	101-55-3	0.055	15.0
U031	n-Butyl alcohol	n-Butyl alcohol	71-36-3	5.6	2.6
U032	Calcium chromate	Chromium (total)	7440-47-3	2.77	0.6 mg/L TCLP
U033	Carbon oxyfluoride	Carbon oxyfluoride	353-50-4	(WETOX OR CHOXD) fb CARBN; or CMBST	CMBST
U034	Trichloroacetaldehyde (Chloral)	Trichloroacetaldehyde (Chloral)	75-87-6	(WETOX OR CHOXD) fb CARBN; or CMBST	CMBST
U035	Chlorambucil	Chlorambucil	305-03-3	(WETOX OR CHOXD) fb CARBN; or CMBST	CMBST

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
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	0.1	CMBST
U039	p-Chloro-m-cresol	p-Chloro-m-cresol	59-50-7	0.018	14.0
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	30.0
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	2218-01-9	0.059	3.4

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
U051	Creosote	Naphthalene	91-20-3	0.059	5.6
		Pentachlororphenol	87-86-5	0.089	7.4
		Phenanthrene	85-01-8	0.059	5.6
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.08	10.0
		Xylenes- mixed isomers (sum of o-, m-, and p- xylene concentrations)	1330-20-7	0.32	30.0
		Lead	7439-92-1	0.69	0.75 mg.l TCLP
U052	Cresols (Cresylic acid)	o-Cresol	95-48-7	0.11	5.6
		m-Cresol (difficult to distinguish from p-Cresol)	108-39-4	0.77	5.6
		p-Cresol (difficult to distinguish from m-Cresol)	106-44-5	0.77	5.6
		Cresol- mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)	1319-77-3	0.88	11.2
U053	Crotonaldehyde	Crotonaldehyde	4170-30-3	(WETOX OR CHOXD) fb CARBN; or CMBST	CMBST

		Regulated hazardous c	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
U055	Cumene	Cumene	98-82-8	(WETOX OR CHOXD) fb CARBN; or CMBST	CMBST
U056	Cyclohexane	Cyclohexane	110-82-7	(WETOX OR CHOXD) fb CARBN; or CMBST	CMBST
U057	Cyclohexanone	Cyclohexanone	108-94-1	0.36	CMBST
		Cyclohexanone; alternate ⁶ standard for nonwastewaters only	108-94-1	NA	0.75 mg/L TCLP
U058	Cyclophosphamide	Cyclophosphamide	50-18-0	CARBN; or CMBST	CMBST
U059	Daunomycin	Daunomycin	20830-81-3	(WETOX OR CHOXD) fb CARBN; or CMBST	CMBST
U060	DDD	o,p'-DDD	53-19-0	0.023	0.087
		p,p'-DDD	72-54-8	0.023	0.087
U061	DDT	o,p'-DDT	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

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous				Concentration ³ in	Concentration 5 in mg/kg unless noted as
waste	Waste description and treatment		CAS ²	mg/L; or technology	"mg/L TCLP"; or
number	or regulatory subcategory ¹	Common name	number	code ⁴	technology code 4
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	15.0
U067	Ethylene dibromide (1,2-Dibromomethane)	Ethylene dibromide (1,2-Dibromomethane)	106-93-4	0.028	15.0
U068	Dibromomethane	Dibromomethane	74-95-3	0.11	15.0
U069	Di-n-butyl phthalate	Di-n-butyl phthalate	84-74-2	0.057	28.0
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	0.09	6.0
U073	3,3'-Dichlorobenzidine	3,3'-Dichlorobenzidine	91-94-1	(WETOX OR CHOXD) fb CARBN; or CMBST	CMBST

		Regulated hazardous co	onstituent Wastewaters		Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
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- butane	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	30.0
U080	Methylene chloride	Methylene chloride	75-09-2	0.089	30.0
U081	2,4-Dichlorophenol	2,4-Dichlorophenol	120-83-2	0.044	14.0
U082	2,6-Dichlorophenol	2,6-Dichlorophenol	87-65-0	0.044	14.0
U083	1,2-Dichloropropane	1,2-Dichloropropane	78-87-5	0.85	18.0
U084	1,3- Dichloropropylene	cis-1,3- Dichloropropylene	10061-01-5	0.036	18.0
		trans-1,3- Dichloropropylene	10061-02-6	0.036	18.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
U085	1,2:3,4-Diepoxybutane	1,2:3,4-Diepoxybutane	1464-53-5	(WETOX OR CHOXD) fb CARBN; or CMBST	CMBST
U086	N,N'-Diethylhydrazine	N,N'-Diethylhydrazine	1615-80-1	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U087	O,O-Diethyl S-methyldithiophosphate	O,O-Diethyl S- methyldithiophosphate	3288-58-2	CARBN; or CMBST	CMBST
U088	Diethyl phthalate	Diethyl phthalate	84-66-2	0.2	28.0
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-Dimethylamino azobenzene	60-11-7	0.13	CMBST

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
U094	7,12-Dimethyl benz(a)anthracene	7,12-Dimethyl benz(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	14.0
U102	Dimethyl phthalate	Dimethyl phthalate	131-11-3	0.047	28.0
U103	Dimethyl sulfate	Dimethyl sulfate	77-78-1	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
U105	2,4-Dinitrotoluene	2,4-Dinitrotoluene	121-14-2	0.32	140.0
U106	2,6-Dinitrotoluene	2,6-Dinitrotoluene	606-20-2	0.55	28.0
U107	Di-n-octyl- phthalate	Di-n-octyl- phthalate	117-84-0	0.017	28.0
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	170.0
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	0.4	14.0
U112	Ethyl acetate	Ethyl acetate	141-78-6	0.34	33.0
U113	Ethyl acrylate	Ethyl acrylate	140-88-5	(WETOX OR CHOXD) fb CARBN; or CMBST	CMBST

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
U114	Ethylenebisdithiocarbamic acid salts and esters	Ethylenebis dithiocarbamic 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	160.0
U118	Ethyl methacrylate	Ethyl methacrylate	97-63-2	0.14	160.0
U119	Ethyl methane sulfonate	Ethyl methane sulfonate	62-50-0	(WETOX OR CHOXD) fb CARBN; or CMBST	CMBST
U120	Fluoranthene	Fluoranthene	206-44-0	0.068	3.4
U121	Trichloromonofluoromethane	Trichloromono fluoromethane	75-69-4	0.02	30.0
U122	Formaldehyde	Formaldehyde	50-00-0	(WETOX OR CHOXD) fb CARBN; or CMBST	CMBST

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
U123	Formic acid	Formic acid	64-18-6	(WETOX OR CHOXD) fb CARBN; or CMBST	CMBST
U124	Furan	Furan	110-00-9	(WETOX OR CHOXD) fb CARBN; or CMBST	CMBST
U125	Furfural	Furfural	98-01-1	(WETOX OR CHOXD) fb CARBN; or CMBST	CMBST
U126	Glycidylaldehyde	Glycidylaldehyde	765-34-4	(WETOX OR CHOXD) fb CARBN; or CMBST	CMBST
U127	Hexachlorobenzene	Hexachlorobenzene	118-74-1	0.055	10.0
U128	Hexachlorobutadiene	Hexachlorobutadiene	87-68-3	0.055	5.6
U129	Lindane	alpha-BHC	319-84-6	0.00014	0.066
		beta-BHC	319-85-7	0.00014	0.066
		delta-BHC	319-86-8	0.023	0.066
		gamma-BHC (Lindane)	58-89-9	0.0017	0.066
U130	Hexachlorocyclopentadiene	Hexachloro cyclopentadiene	77-47-4	0.057	2.4
U131	Hexachloroethane	Hexachloroethane	67-72-1	0.055	30.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
U132	Hexachlorophene	Hexachlorophene	70-30-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U133	Hydrazine	Hydrazine	302-01-2	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U134	Hydrogen fluoride	Fluoride (measured in wastewaters only)	7664-39-3	35.0	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	65.0
U140	Isobutyl alcohol	Isobutyl alcohol	78-83-1	5.6	170.0
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

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
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	Malonitrile	Malonitrile	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 260.0 mg/kg total mercury	Mercury	7439-97-6	NA	RMERC
	U151 (mercury) nonwastewaters that contain less than 260.0 mg/kg total mercury and that are residues from RMERC only	Mercury	7439-97-6	NA	0.2 mg/L TCLP
	U151 (mercury) nonwastewaters that contain less than 260.0 mg/kg total mercury and that are not residues from RMERC	Mercury	7439-97-6	NA	0.025 mg/L TCLP
	All U151 (mercury) wastewaters	Mercury	7439-97-6	0.15	NA

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
	Elemental mercury contaminated with radioactive materials	Mercury	7439-97-6	NA	AMLGM
U152	Methacrylonitrile	Methacrylonitrile	126-98-7	0.24	84.0
U153	Methanethiol	Methanethiol	74-93-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U154	Methanol	Methanol	67-56-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
		Methanol; alternate ⁶ standards for both wastewaters and nonwastewaters	67-56-1	5.6	0.75 mg/L TCLP
U155	Methapyrilene	Methapyrilene	91-80-5	0.081	1.5
U156	Methyl chlorocarbonate	Methyl chlorocarbonate	79-22-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U157	3-Methylcholanthrene	3-Methylcholanthrene	56-49-5	0.0055	15.0
U158	4,4'-Methylene bis(2-chloroaniline)	4,4'-Methylene bis(2-chloroaniline)	101-14-4	0.5	30.0
U159	Methyl ethyl ketone	Methyl ethyl ketone	78-93-3	0.28	36.0
U160	Methyl ethyl ketone peroxide	Methyl ethyl ketone peroxide	1338-23-4	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
U161	Methyl isobutyl ketone	Methyl isobutyl ketone	108-10-1	0.14	33.0
U162	Methyl methacrylate	Methyl methacrylate	80-62-6	0.14	160.0
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	14.0
U170	p-Nitrophenol	p-Nitrophenol	100-02-7	0.12	29.0
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	0.4	17.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
U173	N-Nitrosodiethanolamine	N-Nitrosodiethanolamine	1116-54-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U174	N-Nitrosodiethylamine	N-Nitrosodiethylamine	55-18-5	0.4	28.0
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	35.0
U180	N-Nitrosopyrrolidine	N-Nitrosopyrrolidine	930-55-2	0.013	35.0
U181	5-Nitro-o-toluidine	5-Nitro-o-toluidine	99-55-8	0.32	28.0
U182	Paraldehyde	Paraldehyde	123-63-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U183	Pentachlorobenzene	Pentachlorobenzene	608-93-5	0.055	10.0

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
U184	Pentachloroethane	Pentachloroethane	76-01-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
		Pentachloroethane; alternate ⁶ standards for both wastewaters and nonwastewaters	76-01-7	0.055	6.0
U185	Pentachloronitrobenzene	Pentachloronitrobenzene	82-68-8	0.055	4.8
U186	1,3-Pentadiene	1,3-Pentadiene	504-60-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U187	Phenacetin	Phenacetin	62-44-2	0.081	16.0
U188	Phenol	Phenol	108-95-2	0.039	6.2
U189	Phosphorus sulfide	Phosphorus sulfide	1314-80-3	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
U190	Phthalic anhydride (measured as phthalic acid or terephthalic acid)	Phthalic anhydride (measured as phthalic acid or terephthalic acid)	100-21-0	0.055	28.0
		Phthalic anhydride (measured as phthalic acid or terephthalic acid)	85-44-9	0.055	28.0

		Regulated hazardous c	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
U191	2-Picoline	2-Picoline	109-06-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U192	Pronamide	Pronamide	23950-58-5	0.093	1.5
U193	1,3-Propane sultone	1,3-Propane sultone	1120-71-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U194	n-Propylamine	n-Propylamine	107-10-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U196	Pyridine	Pyridine	110-86-1	0.014	16.0
U197	p-Benzoquinone	p-Benzoquinone	106-51-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U200	Reserpine	Reserpine	50-55-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U201	Resorcinol	Resorcinol	108-46-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U203	Safrole	Safrole	94-59-7	0.081	22.0
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

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
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	14.0
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	79-34-6	0.057	6.0
U210	Tetrachloroethylene	Tetrachloroethylene	127-18-4	0.056	6.0
U211	Carbon tetrachloride	Carbon tetrachloride	56-23-5	0.057	6.0
U213	Tetrahydrofuran	Tetrahydrofuran	109-99-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U214	Thallium (I) acetate	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U215	Thallium (I) carbonate	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U216	Thallium (I) chloride	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U217	Thallium (I) nitrate	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ²	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
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	0.08	10.0
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	15.0
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	0.1

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
U236	Trypan blue	Trypan blue	72-57-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U237	Uracil mustard	Uracil mustard	66-75-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U238	Urethane (Ethyl carbamate)	Urethane (Ethyl carbamate)	51-79-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U239	Xylenes	Xylenes- mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30.0
U240	2,4-D (2,4-Dichlorophenoxyacetic acid)	2,4-D (2,4- Dichloro phenoxyacetic acid)	94-75-7	0.72	10.0
	2,4-D (2,4-Dichlorophenoxy acetic acid) salts and esters		NA	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U243	Hexachloropropylene	Hexachloropropylene	1888-71-7	0.035	30.0
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

		Regulated hazardous c	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
U247	Methoxychlor	Methoxychlor	72-43-5	0.25	0.18
U248	Warfarin, and salts, when present at concentrations of 10.0 per cent 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 10.0 per cent or less	Zinc phosphide	1314-84-7	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
U271	Benomyl 10	Benomyl	17804-35-2	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U278	Bendiocarb 10	Bendiocarb	22781-23-3	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U279	Carbaryl 10	Carbaryl	63-25-2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
U280	Barban ¹⁰	Barban	101-27-9	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U328	o-Toluidine	o-Toluidine	95-53-4	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST

		Regulated hazardous c	constituent	Wastewaters	Nonwastewaters
EPA hazardous waste	Waste description and treatment		CAS ²	Concentration ³ in mg/L; or technology	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or
number	or regulatory subcategory ¹	Common name	number	code ⁴	technology code ⁴
U353	p-Toluidine	p-Toluidine	106-49-0	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST
U359	2-Ethoxyethanol	2-Ethoxyethanol	110-80-5	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST
U364	Bendiocarb phenol 10	Bendiocarb phenol	22961-82-6	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U367	Carbofuran phenol 10	Carbofuran phenol	1563-38-8	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U372	Carbenzadim ¹⁰	Carbenzadim	10605-21-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U373	Propham ¹⁰	Propham	122-42-9	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U387	Prosulfocarb 10	Prosulfocarb	52888-80-9	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST

		Regulated hazardous c	onstituent	Wastewaters	Nonwastewaters
EPA hazardous waste number	Waste description and treatment or regulatory subcategory ¹	Common name	CAS ² number	Concentration ³ in mg/L; or technology code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or technology code ⁴
U389	Triallate ¹⁰	Triallate	2303-17-5	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U394	A2213 ¹⁰	A2213	30558-43-1	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U395	Diethylene glycol, dicarbamate 10	Diethylene glycol, dicarbamate	5952-26-1	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U404	Triethylamine ¹⁰	Triethylamine	121-44-8	0.081; or CMBST, CHOXD, BIODG or CARBN	1.5; or CMBST
U409	Thiophanate-methyl ¹⁰	Thiophanate-methyl	23564-05-8	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U410	Thiocarb ¹⁰	Thiocarb	59669-26-0	0.019; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U411	Propoxur ¹⁰	Propoxur	114-26-1	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST

		Regulated hazardous constituent		Wastewaters	Nonwastewaters
EPA					Concentration ⁵ in
hazardous				Concentration ³ in	mg/kg unless noted as
waste	Waste description and treatment		CAS ²	mg/L; or technology	"mg/L TCLP"; or
number	or regulatory subcategory ¹	Common name	number	code ⁴	technology code ⁴

Footnotes:

NA NA means not applicable.

- The waste descriptions provided in this table do not replace descriptions in Chapter 3745-51 of the Administrative Code. Descriptions of treatment or regulatory subcategories are provided, as needed, to distinguish between applicability of different standards.
- 2 CAS means chemical abstract services. When the EPA hazardous waste number or regulated constituents are described as a combination of a chemical with its salts 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 the table in rule 3745-270-42 of the Administrative Code.
- Except for "Metals (EP or TCLP)" and "Cyanides (total and amenable)" the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of rules 3745-57-40 to 3745-57-51 or 3745-68-40 to 3745-68-52 of the Administrative Code, or based upon combustion in fuel substitution units operating in accordance with the applicable technical requirements. A facility may comply with these treatment standards according to provisions in paragraph (D) of this rule. All concentration standards for nonwastewaters are based on analysis of grab samples.

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA hazardous				Concentration ³ in	Concentration ⁵ in mg/kg unless noted as
waste	Waste description and treatment		CAS ²	mg/L; or technology	"mg/L TCLP"; or
number	or regulatory subcategory ¹	Common name	number	code ⁴	technology code 4
6	Where an alternate treatment standal alternate standard, but only for the nonwastewater) specified for that	e "Treatment or Regulatory			* * *
7	Both "Cyanides (total)" and "Cyanides (amenable)" for nonwastewaters are to be analyzed using method 9010C or method 9012B in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," U.S. EPA publication SW-846 with a sample size of ten 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 (CWA), or CWA-equivalent systems, are not subject to treatment standards. [See paragraph (C)(3) and (C)(4) of rule 3745-270-01 of the Administrative Code.]				

- These wastes, when rendered nonhazardous and then subsequently injected in a "Class I SDWA" well are not subject to treatment standards. [See 40 CFR 148.1(d).]
- 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 described by the technology code CMBST in the table in rule 3745-270-42 of the Administrative Code, for nonwastewaters; and biodegradation as described by the technology code BIODG, carbon adsorption as described by the technology code CARBN, chemical oxidation as described by the technology code CHOXD, or combustion as described by the technology code CMBST in the table in rule 3745-270-42 of the Administrative Code, for wastewaters.

		Regulated hazardous co	onstituent	Wastewaters	Nonwastewaters
EPA					Concentration ⁵ in
hazardous				Concentration ³ in	mg/kg unless noted as
waste	Waste description and treatment		CAS ²	mg/L; or technology	"mg/L TCLP"; or
number	or regulatory subcategory ¹	Common name	number	code ⁴	technology code 4
11	For these wastes, the definition of CMBST is limited to: (1) combustion units operating under Chapter 3745-266 of the Administrative Code, (2) combustion units permitted under rules 3745-57-40 to 3745-57-51 of the Administrative Code, or (3) combustion units operating under rules 3745-68-40 to 3745-68-52 of the Administrative Code, which have obtained a determination of equivalent treatment under paragraph (B) of rule 3745-270-42 of the Administrative Code. Disposal of K175 wastes that have complied with all applicable treatment standards in this rule shall also be macroencapsulated in accordance with the table in rule 3745-270-45 of the Administrative Code unless the waste is placed in: (1) A permitted hazardous waste landfill containing only K175 wastes that meet all applicable treatment standards in this rule; or (2) A dedicated permitted hazardous waste landfill cell in which all other wastes being				
	co-disposed are at pH less than or	equal to 6.0.			J

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, federal rules, and federal statutory provisions referenced in this rule, see rule 3745-50-11 of the Administrative Code titled "Incorporated by reference."]

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3745-270-40 APPENDIX

1

Appendix to rule 3745-270-40 of the Administrative Code

Extraction Procedure (EP) Toxicity Test Method and Structural Integrity Test (Method 1310B)

The EP (method 1310B) is published in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," U.S. EPA publication SW-846.

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, federal rules, and federal statutory provisions referenced in this rule, see rule 3745-50-11 of the Administrative Code titled "Incorporated by reference."]

3745-270-42 Treatment standards expressed as specified technologies.

(A) The following wastes in the table in rule 3745-270-40 of the Administrative Code "Treatment Standards for Hazardous Wastes," for which standards are expressed as a treatment method rather than a concentration level, shall be treated using the technology or technologies specified in the table in this rule.

Table: Technology Codes and Description of Technology-Based Standards

Technology code	Description of technology-based standards
ADGAS	Venting of compressed gases into an absorbing or reacting media (i.e., solid or liquid) - venting can be accomplished through physical release utilizing valves or piping; physical penetration of the container, or penetration through detonation.
AMLGM	Amalgamation of liquid, elemental mercury contaminated with radioactive materials utilizing inorganic reagents such as copper, zinc, nickel, gold, and sulfur that result in a nonliquid, semi-solid amalgam and thereby reducing potential emissions of elemental mercury vapors to the air.
BIODG	Biodegradation of organics or non-metallic inorganics (i.e., degradable inorganics that contain the elements of phosphorus, nitrogen, and sulfur) in units operated under either aerobic or anaerobic conditions such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., total organic carbon can often be used as an indicator parameter for the biodegradation of many organic constituents that cannot be directly analyzed in wastewater residues).
CARBN	Carbon adsorption (granulated or powdered) of non-metallic inorganics, organo-metallics, or organic constituents, operated such that a surrogate compound or indicator parameter has not undergone breakthrough (e.g., total organic carbon can often be used as an indicator parameter for the adsorption of many organic constituents that cannot be directly analyzed in wastewater residues). Breakthrough occurs when the carbon has become saturated with the constituent (or indicator parameter) and substantial change in adsorption rate associated with that constituent occurs.
CHOXD	Chemical or electrolytic oxidation utilizing the following oxidation reagents (or waste reagents) or combinations of reagents: (1) hypochlorite (e.g., bleach); (2) chlorine; (3) chlorine dioxide; (4) ozone or ultraviolet light assisted ozone; (5) peroxides; (6) persulfates; (7) perchlorates; (8) permangantes; or (9) other oxidizing reagents of equivalent efficiency,

	performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., total organic carbon can often be used as an indicator parameter for the oxidation of many organic constitutents that cannot be directly analyzed in wastewater residues). Chemical oxidation specifically includes what is commonly referred to as alkaline chlorination.
CHRED	Chemical reduction utilizing the following reducing reagents (or waste reagents) or combinations of reagents: (1) sulfur dioxide; (2) sodium, potassium, or alkali salts or sulfites, bisulfites, metabisulfites, and polyethylene glycols (e.g., NaPEG and KPEG); (3) sodium hydrosulfide; (4) ferrous salts; or (5) other reducing reagents of equivalent efficiency, performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., total organic halogens can often be used as an indicator parameter for the reduction of many halogenated organic constituents that cannot be directly analyzed in wastewater residues). Chemical reduction is commonly used for the reduction of hexavalent chromium to the trivalent state.
CMBST	High temperature organic destruction technologies, such as combustion in incinerators, boilers, or industrial furnaces operated in accordance with the applicable requirements of rules 3745-57-40 to 3745-57-51, or 3745-68-40 to 3745-68-52, or 3745-266-100 to 3745-266-112 of the Administrative Code, and in other units operated in accordance with applicable technical operating requirements; and certain non-combustive technologies, such as the catalytic extraction process.
DEACT	Deactivation to remove the hazardous characteristics of a waste due to its ignitability, corrosivity, or reactivity.
FSUBS	Fuel substitution in units operated in accordance with applicable technical operating requirements.
HLVIT	Vitrification of high level mixed radioactive wastes in units in compliance with all applicable radioactive protection requirements under control of the nuclear regulatory commission.
IMERC	Incineration of wastes containing organics and mercury in units operated in accordance with the technical operating requirements of rules 3745-57-40 to 3745-57-51 and 3745-68-40 to 3745-68-52 of the Administrative Code. All wastewater and nonwastewater residues derived from this process shall then comply with the corresponding treatment standards per EPA hazardous

	waste number with consideration of any applicable subcategories (e.g., high or low mercury subcategories).
INCIN	Incineration in units operated in accordance with the technical operating requirements of rules 3745-57-40 to 3745-57-51 and 3745-68-40 to 3745-68-52 of the Administrative Code.
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 shall undergo either incineration, reuse as a fuel, or other recovery or reuse and a raffinate (extracted liquid waste) proportionately low in organics that shall 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" as those terms are defined in rule 3745-50-10 of the Administrative Code.
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 2.0 but less than 12.5 as measured in the aqueous residuals.
NLDBR	No land disposal based on recycling.
POLYM	Formation of complex high-molecular weight solids through polymerization of monomers in high total organic carbon (TOC) D001 nonwastewaters which are chemical components in the manufacture of plastics.
PRECP	Chemical precipitation of metals and other inorganics as insoluble precipitates of oxides, hydroxides, carbonates, sulfides, sulfates, chlorides, fluorides, or phosphates. The following reagents (or waste reagents) are typically used alone or in combination: (1) lime (i.e., containing oxides or hydroxides of calcium or magnesium); (2) caustic (i.e., sodium or potassium hydroxides); (3) soda ash (i.e., sodium carbonate); (4) sodium sulfide; (5) ferric sulfate or ferric chloride; (6) alum; or (7) sodium sulfate. Additional flocculating, coagulation or similar reagents or processes that enhance sludge dewatering characteristics are not precluded from use.
RBERY	Thermal recovery of beryllium.

RCGAS	Recovery or reuse of compressed gases including techniques such as reprocessing of the gases for reuse or resale; filtering or adsorption of 3745-270-42 3 impurities; remixing for direct reuse or resale; and use of the gas as a fuel source.
RCORR	Recovery of acids or bases utilizing one or more of the following recovery technologies: (1) distillation (i.e., thermal concentration); (2) ion exchange; (3) resin or solid adsorption; (4) reverse osmosis; or (5) incineration for the recovery of acid. Comment: 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) shall 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 shall then comply with the corresponding treatment standards per EPA hazardous waste number with consideration of any applicable subcategories (e.g., high or low mercury subcategories).
RMETL	Recovery of metals or inorganics utilizing one or more of the following direct physical or removal technologies: (1) ion exchange; (2) resin or solid (i.e., zeolites) adsorption; (3) reverse osmosis; (4) chelation or solvent extraction; (5) freeze crystallization; (6) ultrafiltration; or (7) simple precipitation (i.e., crystallization). Comment: 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 or crystallization (including freeze crystallization); or (8) chemical phase separation techniques (i.e., addition of acids, bases, demulsifiers, or similar chemicals). Comment: 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" as defined in rule 3745-50-10 of the Administrative Code in the subparagraphs for cement kilns; blast furnaces; smelting, melting, and refining furnaces; combustion devices used in the recovery of sulfur values from spent sulfuric acid; and halogen acid 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 or pozzolans (e.g., fly ash and cement kiln dust). This does not preclude the addition of reagents (e.g., iron salts, silicates, and clays) designed to enhance the set time or cure time or compressive strength, or to overall reduce the leachability of the metal or inorganic.
SSTRP	Steam stripping of organics from liquid wastes utilizing direct application of steam to the wastes operated such that liquid and vapor flow rates, as well as, temperature and pressure ranges, have been optimized, monitored, and maintained. These operating parameters are dependent upon the design parameters of the unit, such as, the number of separation stages and the internal column design, thus resulting in a condensed extract high in organics that shall undergo either incineration, reuse as a fuel, or other recovery or reuse and an extracted wastewater that shall undergo further treatment as specified in the standard.
VDT VTD	Vacuum thermal desorption of low-level radioactive hazardous mixed waste in units in compliance with all applicable radioactive protection requirements under control of the nuclear regulatory commission.
WETOX	Wet air oxidation performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., total organic carbon can often be used as an indicator parameter for the oxidation of many organic constituents that cannot be directly analyzed in wastewater residues).
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 or ignitable levels of gases released during the reaction.

Footnotes:

1 [Reserved.]

- 2 When more than one technology (or treatment train) is 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 best demonstrated available technologies (BDATs) or treatment trains can be used for compliance with the standard.
- (B) Any person may submit an application to the director administrator demonstrating that an alternative treatment method can achieve a measure of performance equivalent to that achieved by methods specified in paragraphs (A), (C), and (D) of this rule 40 CFR 268.42(a), (c), and (d) for wastes or specified in the table in rule 3745-270-45 of the Administrative Code for hazardous debris. The applicant shall submit information demonstrating that 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 the director finds that the alternative treatment method provides a measure of performance equivalent to that achieved by methods specified in paragraphs (A), (C), and (D) of this rule 40 CFR 268.42(a), (c), and (d) for wastes or in the table in rule 3745-270-45 of the Administrative Code for hazardous debris. Any approval shall be stated in writing and may contain such provisions and conditions as the directoradministrator deems appropriate. The person to whom such approval is issued shall comply with all limitations contained in such a determination.
- (C) As an alternative to the otherwise applicable treatment standards in rules 3745-270-40 to 3745-270-49 of the Administrative Code, lab packs are eligible for land disposal provided the all of following requirements are met:
 - (1) The lab packs comply with the applicable provisions of rules 3745-57-16 and 3745-68-16 of the Administrative Code.
 - (2) The lab pack does not contain any of the wastes listed in appendix A to this rule.
 - (3) The lab packs are incinerated in accordance with rules 3745-57-40 to 3745-57-51 or 3745-68-40 to 3745-68-52 of the Administrative Code.

(4) Any incinerator residues from lab packs containing D004, D005, D006, D007, D008, D010, and D011 are treated in compliance with the applicable treatment standards specified for such wastes in rules 3745-270-40 to 3745-270-49 of the Administrative Code.

(D) Radioactive hazardous mixed wastes are subject to the treatment standards in rule 3745-270-40 of the Administrative Code. Where treatment standards are specified for radioactive mixed wastes in the table of treatment standards, those treatment standards will govern. Where there is no specific treatment standard for radioactive mixed waste, the treatment standard for the hazardous waste (as designated by EPA hazardous waste number) applies. Hazardous debris containing radioactive waste is subject to the treatment standards specified in rule 3745-270-45 of the Administrative Code.

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, federal rules, and federal statutory provisions referenced in this rule, see rule 3745-50-11 of the Administrative Code titled "Incorporated by reference."]

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3745-270-42

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Appendix A to rule 3745-270-42 of the Administrative Code

Wastes Excluded from Lab Packs Under the Alternative Treatment Standards of Paragraph (C) of rule 3745-270-42 of the Administrative Code

Hazardous wastes with the following EPA hazardous waste numbers may not be placed in lab packs under the alternative treatment standards of paragraph (C) of rule 3745-270-42 of the Administrative Code: D009, F019, K003, K004, K005, K006, K062, K071, K100, K106, P010, P011, P012, P076, P078, U134, and U151.

Appendix B to rule 3745-270-42 of the Administrative Code

Recommended Technologies to Achieve Deactivation of Characteristics in rule 3745-270-42 of the Administrative Code

The treatment standard for many characteristic wastes is stated in the table in rule 3745-270-40 of the Administrative Code as "Deactivation and meet UTS." Ohio EPA has determined that many technologies, when used alone or in combination, can achieve the deactivation portion of the treatment standard. Characteristic wastes that are not managed in a facility regulated by the Clean Water Act (CWA) or in a CWA-equivalent facility, and that also contain "underlying hazardous constituents" (as defined in rule 3745-270-02 of the Administrative Code) shall be treated not only by a "deactivating" technology to remove the characteristic, but also to achieve the universal treatment standards (UTS) for underlying hazardous constituents. This appendix presents a partial list of these technologies, utilizing the five-letter technology codes established in the table in rule 3745-270-42 of the Administrative Code that may be useful in meeting the treatment standard. Use of these specific technologies is not mandatory and does not preclude direct reuse, recovery, or the use of other pretreatment technologies, provided deactivation is achieved and underlying hazardous constituents are treated to achieve the UTS.

EPA ha	zardous waste number and subcategory	Non-wastewaters	Wastewaters
D001	Ignitable Liquids based on paragraph (A)(1) of rule 3745-51-21 of the Administrative Code- Low total organic carbon (TOC) Nonwastewater Subcategory (containing 1% to <10% TOC)	RORGS INCIN WETOX CHOXD BIODG	NA
D001	Ignitable Liquids based on paragraph (A)(1) of rule 3745-51-21 of the Administrative Code- Ignitable Wastewater Subcategory (containing <1% TOC)	NA	RORGS INCIN WETOX CHOXD BIODG
D001	Compressed Gases based on paragraph (A)(3) of rule 3745-51-21 of the Administrative Code	RCGAS INCIN FSUBS ADGAS fb INCIN ADGAS fb (CHOXD; or CHRED)	NA
D001	Ignitable Reactives based on paragraph (A)(2) of rule 3745-51-21 of the Administrative Code	WTRRX CHOXD CHRED STABL INCIN	NA

EPA ha	zardous waste number and subcategory	Non-wastewaters	Wastewaters
D001	Ignitable Oxidizers based on paragraph (A)(4) of rule 3745-51-21 of the Administrative Code	CHRED INCIN	CHRED INCIN
D002	Acid Subcategory based on paragraph (A)(1) of rule 3745-51-22 of the Administrative Code with pH less than or equal to 2	RCORR NEUTR INCIN	NEUTR INCIN
D002	Alkaline Subcategory based on paragraph (A)(1) of rule 3745-51-22 of the Administrative Code with pH greater than or equal to 12.5	NEUTR INCIN	NEUTR INCIN
D002	Other Corrosives based on paragraph (A)(2) of rule 3745-51-22 of the Administrative Code	CHOXD CHRED INCIN STABL	CHOXD CHRED INCIN
D003	Water Reactives based on paragraphs (A)(2), (A)(3), and (A)(4) of rule 3745-51-23 of the Administrative Code	INCIN WTRRX CHOXD CHRED	NA
D003	Reactive Sulfides based on paragraph (A)(5) of rule 3745-51-23 of the Administrative Code	CHOXD CHRED INCIN STABL	CHOXD CHRED BIODG INCIN
D003	Explosives based on paragraphs (A)(6), (A)(7), and (A)(8) of rule 3745-51-23 of the Administrative Code	INCIN CHOXD CHRED	INCIN CHOXD CHRED BIODG CARBN
D003	Other Reactives based on paragraph (A)(1) of rule 3745-51-23 of the Administrative Code	INCIN CHOXD CHRED	INCIN CHOXD CHRED BIODG CARBN
K044	Wastewater treatment sludges from the manufacturing and processing of explosives	CHOXD CHRED INCIN	CHOXD CHRED BIODG CARBN INCIN

EPA haz	EPA hazardous waste number and subcategory Non-wastewaters		Wastewaters
K045	Spent carbon from the treatment of wastewaters containing explosives	CHOXD CHRED INCIN	CHOXD CHRED BIODG CARBN INCIN
K047	Pink or red water from TNT operations	CHOXD CHRED INCIN	CHOXD CHRED BIODG CARBN INCIN
]	Footnotes: NA stands for "not applicable"; "fb" stand	ds for "followed by	."

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, federal rules, and federal statutory provisions referenced in this rule, see rule 3745-50-11 of the Administrative Code titled "Incorporated by reference."]

3745-270-44 Variance from a treatment standard.

- (A) 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 pursuant to 40 CFR 268.44 for a variance.
- (B) Ohio EPA will recognize the administrator's decision to grant or deny a variance under 40 CFR 268.44.

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, federal rules, and federal statutory provisions referenced in this rule, see rule 3745-50-11 of the Administrative Code titled "Incorporated by reference."]

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3745-270-45 Treatment standards for hazardous debris.

- (A) Treatment standards. Hazardous debris must be treated prior to land disposal as follows unless Ohio EPA determines under paragraph (F)(2) of rule 3745-51-03 of the Administrative Code that the debris is no longer contaminated with hazardous waste or the debris is treated to the waste-specific treatment standard provided in rules 3745-270-40 to 3745-270-49 of the Administrative Code for the waste contaminating the debris:
 - (1) General. Hazardous debris must be treated for each "contaminant subject to treatment" defined by paragraph (B) of this rule using the technology or technologies identified in Table 1 of the table in this rule.
 - (2) Characteristic debris. Hazardous debris that exhibits the characteristic of ignitability, corrosivity, or reactivity identified under rules 3745-51-21, 3745-51-22, and 3745-51-23 of the Administrative Code, respectively, must be deactivated by treatment using one of the technologies identified in Table 1 of the table in this rule.
 - (3) Mixtures of debris types. The treatment standards of Table 1 in the table in this rule must be achieved for each type of debris contained in a mixture of debris types. If an immobilization technology is used in a treatment train, it must be the last treatment technology used.
 - (4) Mixtures of contaminant types. Debris that is contaminated with two or more contaminants subject to treatment identified under paragraph (B) of this rule must be treated for each contaminant using one or more treatment technologies identified in Table 1 of the table in this rule. If an immobilization technology is used in a treatment train, it must be the last treatment technology used.
 - (5) Waste <u>polychlorinated biphenyls (PCBs)</u>. Hazardous debris that is also a waste PCB under 40 CFR <u>partPart</u> 761 is subject to the requirements of either 40 CFR <u>partPart</u> 761 or the requirements of this rule, whichever are more stringent.
- (B) Contaminants subject to treatment. Hazardous debris must be treated for each "contaminant subject to treatment." The contaminants subject to treatment must be determined as follows:
 - (1) Toxicity characteristic debris. The contaminants subject to treatment for debris that exhibits the toxicity characteristic under rule 3745-51-24 of the Administrative Code are those extraction procedure constituents for which the debris exhibits the toxicity characteristic.
 - (2) Debris contaminated with listed waste. The contaminants subject to treatment for debris that is contaminated with a prohibited listed hazardous waste are those constituents or wastes for which treatment standards are established for the waste under rule 3745-270-40 of the Administrative Code.
 - (3) Cyanide reactive debris. Hazardous debris that is reactive because of cyanide must be treated for cyanide.

(C) Conditioned exclusion of treated debris. Hazardous debris that has been treated using one of the extraction or destruction technologies specified in Table 1 of the table in this rule, and that does not exhibit a characteristic of hazardous waste identified in rules 3745-51-20 to 3745-51-24 of the Administrative Code after treatment, is not a hazardous waste and need not be managed in a permitted hazardous waste facility. Hazardous debris contaminated with a listed waste that is treated by an immobilization technology specified in Table 1 of the table in this rule is a hazardous waste and must be managed in a permitted hazardous waste facility.

(D) Treatment residuals.

- (1) General requirements. Except as provided by paragraphs (D)(2) and (D)(4) of this rule:
 - (a) Residue from the treatment of hazardous debris must be separated from the treated debris using simple physical or mechanical means; and
 - (b) Residue from the treatment of hazardous debris is subject to the waste-specific treatment standards provided by rules 3745-270-40 to 3745-270-49 of the Administrative Code for the waste contaminating the debris.
- (2) Nontoxic debris. Residue from the deactivation of ignitable, corrosive, or reactive characteristic hazardous debris (other than cyanide-reactive) that is not contaminated with a contaminant subject to treatment defined by paragraph (B) of this rule must be deactivated prior to land disposal and is not subject to the waste-specific treatment standards of rules 3745-270-40 to 3745-270-49 of the Administrative Code.
- (3) Cyanide-reactive debris. Residue from the treatment of debris that is reactive because of cyanide must meet the standards for D003 in "Treatment Standards for Hazardous Wastes" in rule 3745-270-40 of the Administrative Code.
- (4) Ignitable nonwastewater residue. Ignitable nonwastewater residue containing equal to or greater than ten per cent total organic carbon is subject to the technology specified in the treatment standard for D001: ignitable liquids.
- (5) Residue from spalling. Layers of debris removed by spalling are hazardous debris that remain subject to the treatment standards of this rule.

Table—1: Alternative Treatment Standards for Hazardous Debris ¹

Тес	hnology l	Description	Performance and/or Design and Operating Standard	Contaminant Restrictions ²
A. Extraction technologies:		ion technologies:		
	1. Phy	ysical extraction		
	a.	Abrasive blasting: Removal of contaminated debris surface layers using water and/or air pressure to propel a solid media (e.g., steel shot, aluminum oxide grit, plastic beads).	Glass, metal, plastic, rubber: Treatment to a clean debris surface. ³ Brick, cloth, concrete, paper, pavement, rock, wood: Removal of at least 0.6 centimeters (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.

Technology	Description	Performance and/or Design and Operating Standard	Contaminant Restrictions ²
d.	Vibratory finishing: Process utilizing scrubbing media, flushing fluid, and oscillating energy such that hazardous contaminants or contaminated debris surface layers are removed. ⁴	Same as above.	Same as above.
e.	High pressure steam and water sprays: Application of water or steam sprays of sufficient temperature, pressure, residence time, agitation, surfactants, and detergents to remove hazardous contaminants from debris surfaces or to remove contaminated debris surface layers.	Same as above.	Same as above.
2. Ch	nemical extraction		
a.	Water washing and spraying: Application of water sprays or water baths of sufficient temperature, pressure, residence time, agitation, surfactants, acids, bases, and detergents to remove hazardous contaminants from debris surfaces and surface pores or to remove contaminated debris surface layers.	All debris: Treatment to a clean debris surface ³ ; Brick, cloth, concrete, paper, pavement, rock, wood: Debris must be no more than 1.2 cm (1/2 inch) in one dimension (i.e., thickness limit, sexcept that this thickness limit may be waived under an "Equivalent Technology" approval under paragraph (B) of rule 3745-270-42 of the Administrative Code; debris surfaces must be in contact with water solution for at least fifteen minutes.	Brick, cloth, concrete, paper, pavement, rock, wood: Contaminant must be soluble to at least five per cent by weight in water solution or five per cent by weight in emulsion; if debris is contaminated with a dioxin-listed waste, an "Equivalent Technology" approval under paragraph (B) of rule 3745-270-42 of the Administrative Code must be obtained.

Technolo	ogy]	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 five per cent 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 sixty minutes.	Same as above.
3.	Th	ermal 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, 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 paragraph (B) of rule 3745-270-42 of the Administrative Code. ⁸

Technology De	escription	Performance and/or Design and Operating Standard	Contaminant Restrictions ²
6 6 7 8 8 9 1	Thermal desorption: Heating in an enclosed chamber under either exidizing or nonoxidizing atmospheres at sufficient temperature and residence time to vaporize hazardous contaminants from contaminated surfaces and surface pores and to remove the contaminants from the heating chamber in a gaseous exhaust gas. ⁷	All debris: Obtain an "Equivalent Technology" approval under paragraph (B) of rule 3745-270-42 of the Administrative Code; treated debris must be separated from treatment residuals using simple physical or mechanical means, and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris. Brick, cloth, concrete, paper, pavement, rock,	All debris: Metals other than mercury.
		wood: Debris must be no more than 10.0 cm (4 inches) in one dimension (i.e., thickness limit), except that this thickness limit may be waived under the "Equivalent Technology" approval.	

Tec	hnology Description	Performance and/or Design and Operating Standard	Contaminant Restrictions ²
B.	Destruction technologies:		
	1. Biological destruction (biodegradation): Removal of hazardous contaminants from debris surfaces and surface pores in an aqueous solution and biodegrationbiodegradation of organic or nonmetallic inorganic compounds (i.e., inorganics that contain phosphorus, nitrogen, or sulfur) in units operated under either aerobic or anaerobic conditions.	All debris: Obtain an "Equivalent Technology" approval under paragraph (B) of rule 3745-270-42 of the Administrative Code; treated debris must be separated from treatment residuals using simple physical or mechanical means, and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris.	All debris: Metal contaminants. 2. Chemical destruction 2. Chemical destruction
		Brick, cloth, concrete, paper, pavement, rock, wood: Debris must be no more than 1.2 cm (1/2 inch) in one dimension (i.e., thickness limit), ⁵ except that this thickness limit may be waived under the "Equivalent Technology" approval.	

Technology Description	Performance and/or Design and Operating Standard	Contaminant Restrictions ²
2. a. Chemical oxidation: Chemical or electolytic electrolytic oxidation utilizing the following oxidation reagents (or waste reagents) or combination of the following reagents: (1) hypochlorite (e.g., bleach); (2) chlorine; (3) chlorine dioxide; (4) ozone or ultraviolet light assisted ozone; (5) peroxides; (6) persulfates; (7) perchlorates; (8) permanganates; and/or (9) other oxidizing reagents of equivalent destruction efficiency. ⁴ Chemical oxidation specifically includes what is referred to as alkaline chlorination.	All debris: obtain Obtain an "Equivalent Technology" approval under paragraph (B) of rule 3745-270-42 of the Administrative Code; treated debris must be separated from treatment residuals using simple physical or mechanical means, and, prior to further treatment, such residues must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris. Brick, cloth, concrete, paper, pavement, rock, wood: Debris must be no more than 1.2 cm (1/2 inch) in one dimension (i.e., thickness limit), except that this thickness limit may be waived under the "Equivalent Technology" approval.	All debris: Metal contaminants.
b. Chemical reduction: Chemical reaction utilizing the following reducing reagents (or waste reagents) or combination of reagents: (1) sulfur dioxide; (2) sodium, potassium, or alkali salts of sulfites, bisulfites, and metabisulfites, and polyethylene glycols (e.g., NaPEG and KPEG); (3) sodium hydrosulfide; (4) ferrous salts; and/or (5) other reducing reagents of equivalent efficiency. ⁴	Same as above.	Same as above.

Techr	nology Description	Performance and/or Design and Operating Standard	Contaminant Restrictions ²
	3. Thermal destruction: Treatment in an incinerator operating in accordance with rules 3745-57-40 to 3745-57-51 and 3745-68-40 to 3745-68-52 of the Administrative Code; a boiler or industrial furnace operating in accordance with rules 3745-266-100 to 3745-266-112 of the Administrative Code, or other thermal treatment unit operated in accordance with rules 3745-57-90 to 3745-57-93 or 3745-68-70 to 3745-68-83 of the Administrative Code, but excluding for purposes of these debris treatment standards thermal desorption units.	Treated debris must be separated from treatment residuals using simple physical or mechanical means, and, prior to further treatment, such residues must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris.	Brick, concrete, glass, metal, pavement, rock, metal: Metals other than mercury, except that there are no metal restrictions for vitrification. Debris contaminated with a dioxin-listed waste ⁶ : Obtain an "Equivalent Technology" approval under paragraph (B) of rule 3745-270-42 of the Administrative Code, except that this requirement does not apply to vitrification.
C.	Immobilization technologies:		
	1. Macroencapsulation: Application of surface coating materials such as polymeric organics (e.g., resins and plastics) or use of a jacket of inert inorganic materials to substantially reduce surface exposure to potential leaching media.	Encapsulating material must completely encapsulate debris and be resistant to degradation by the debris and its contaminants and materials with which it may come in contact after placement (leachate, other waste, microbes).	None.

Technology Description		Performance and/or Design and Operating Standard	Contaminant Restrictions ²
2. Microencapsulation: Stadebris with the following waste reagents) such the of the hazardous contain (1) portland cement; or (e.g., fly ash and cement Reagents (e.g., iron salt clays) may be added to set/cure time and/or contained or to reduce the leachable hazardous constituents.	g reagents (or at the leachability ninants is reduced: (2) lime/pozzolans t kiln dust). s, silicates, and enhance the inpressive strength, ility of the	Leachability of the hazardous contaminants must be reduced.	None.
3. Sealing: Application of material which adheres surface to avoid exposu potential leaching medi to effectively seal the su entails pretreatment of tremove foreign matter a roughen the surface. Se include epoxy, silicone, compounds, but paint me sealant.	tightly to the debris re of the surface to a. When necessary urface, sealing the debris surface to and to clean and aling materials and urethane	Sealing must avoid exposure of the debris surface to potential leaching media and sealant must be resistentresistant to degradation by the debris and its contaminants and materials with which it may come in contact after placement (leachate, other waste, microbes).	None.

Footnotes:

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

Technology Description and Operating Standard Restrictions		Performance and/or Design and Operating Standard	Contaminant Restrictions ²
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- Contaminant restriction means that the technology is not <u>best demonstrated available technology</u> (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 regulation as a hazardous waste).
- "Clean debris surface" means the surface, when viewed without magnification, must 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 must be limited to no more than five per cent of each square inch of surface area.
- Acids, solvents, and chemical reagents may react with some debris and contaminants to form hazardous compounds. For example, acid washing of cyanide-contaminated debris could result in the formation of hydrogen cyanide. Some acids may also react violently with some debris and contaminants, depending on the concentration of the acid and the type of debris and contaminants. Debris treaters should refer to the safety precautions specified in material safety data sheets for various acids to avoid applying an incompatible acid to a particular debris/contaminant combination. For example, concentrated sulfuric acid may react violently with certain organic compounds, such as acrylonitrile.
- If reducing the particle size of debris to meet the treatment standards results in material that no longer meets the sixty mm minimum particle size limit for debris, such material is subject to the waste-specific treatment standards for the waste contaminating the material, unless the debris has been cleaned and separated from contaminated soil and waste prior to size reduction. At a minimum, simple physical or mechanical means must be used to provide such cleaning and separation of nondebris materials to ensure that the debris surface is free of caked soil, waste, or other nondebris material.
- 6 Dioxin-listed wastes are EPA hazardous waste numbers F020, F021, F022, F023, F026, and F027.
- 7 Thermal desorption is distinguished from thermal destruction in that the primary purpose of thermal desorption is to volatilize contaminants and to remove them from the treatment chamber for subsequent destruction or other treatment.

Technology Description		Performance and/or Design and Operating Standard	Contaminant Restrictions ²
	must document that the technology trea the performance and design and operati	ogy" under paragraph (B) of rule 3745-270-42 of ts contaminants subject to treatment to a level eq ng standards for other technologies in this table s hazard to human health and the environment abs	uivalent to that required by such that residual levels of
:	hazardous contaminants will not pose a hazard to human health and the environment absent management controls. Any soil, waste, and other nondebris material that remains on the debris surface (or remains mixed with the debris) after treatment is considered a treatment residual that must be separated from the debris using, at a minimum, simple physical or mechanical means. Examples of simple physical or mechanical means are vibratory or trommel screening or water washing. The debris surface need not be cleaned to a "clean debris surface" as defined in footnote 3 of this table 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.		

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, federal rules, and federal statutory provisions referenced in this rule, see rule 3745-50-11 of the Administrative Code titled "Incorporated by reference."]

Effective: 09/05/2010

R.C. 119.032 review dates: Exempt

CERTIFIED ELECTRONICALLY

Certification

07/23/2010

Date

Promulgated Under: 119.03 Statutory Authority: 3734.12 Rule Amplifies: 3734.12

Prior Effective Dates: 12/07/2000, 12/07/2004

3745-270-48 Universal treatment standards.

(A) The table in this rule identifies the hazardous constituents, along with the nonwastewater and wastewater treatment standard levels, that are used to regulate most prohibited hazardoshazardous wastes with numerical limits. For determining compliance with treatment standards for "underlying hazardous constituents" as defined in rule 3745-270-02 of the Administrative Code, 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 table in this rule.

Table: Universal	Treatment	Standards	
Regulated constituent common name	CAS ¹ number	Wastewater standards concentration ² in mg/lmg/L	Nonwastewater standards concentration ³ in mg/kg unless noted as "mg/lmg/L TCLP"
Organic constituents:			
Acenaphthene	83-32-9	0.059	3.4
Acenaphthylene	208-96-8	0.059	3.4
Acetone	67-64-1	0.28	160.0
Acetonitrile	75-05-8	5.6	38.0
Acetophenone	96-86-2	0.01	9.7
2-Acetylaminofluorene	53-96-3	0.059	140.0
Acrolein	107-02-8	0.29	NA
Acrylamide	79-06-1	19.0	23.0
Acrylonitrile	107-13-1	0.24	84.0
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	14.0
o-Anisidine (2-Methoxyaniline)	90-04-0	0.010	0.66
Anthracene	120-12-7	0.059	3.4
Aramite	140-57-8	0.36	NA
Barban-6	101-27-9	0.056	1.4
Bendiocarb ⁶	22781-23-3	0.056	1.4
Benomyl-6	17804-35-2	0.056	1.4
Benz(a)anthracene	56-55-3	0.059	3.4

Table: Universal	Treatment	Standards	
Regulated constituent common name	CAS ¹ number	Wastewater standards concentration ² in mg/lmg/L	Nonwastewater standards concentration ³ in mg/kg unless noted as "mg/lmg/L TCLP"
Benzal chloride	98-87-3	0.055	6.0
Benzene	71-43-2	0.14	10.0
Benzo(b)fluoranthene [difficult to distinguish from benzo(k)fluoranthene]	205-99-2	0.11	6.8
Benzo(k)fluoranthene [difficult to distinguish from benzo(b)fluoranthene]	207-08-9	0.11	6.8
Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
Benzo(a)pyrene	50-32-8	0.061	3.4
alpha-BHC	319-84-6	0.00014	0.066
beta-BHC	319-85-7	0.00014	0.066
delta-BHC	319-86-8	0.023	0.066
gamma-BHC	58-89-9	0.0017	0.066
Bromodichloromethane	75-27-4	0.35	15.0
Bromomethane / Methyl bromide	74-83-9	0.11	15.0
4-Bromophenyl phenyl ether	101-55-3	0.055	15.0
n-Butyl alcohol	71-36-3	5.6	2.6
Butyl benzyl phthalate	85-68-7	0.017	28.0
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
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/lmg/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	16.0

Table: Universal	Treatment	Standards	
Regulated constituent common name	CAS ¹ number	Wastewater standards concentration ² in mg/lmg/L	Nonwastewater standards concentration ³ in mg/kg unless noted as "mg/lmg/L TCLP"
Chlorobenzene	108-90-7	0.057	6.0
Chlorobenzilate	510-15-6	0.1	NA
2-Chloro-1,3-butadiene	126-99-8	0.057	0.28
Chlorodibromomethane	124-48-1	0.057	15.0
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	14.0
Chloromethane / Methyl chloride	74-87-3	0.19	30.0
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	30.0
Chrysene	218-01-9	0.059	3.4
p-Cresidine	120-71-8	0.010	0.66
o-Cresol	95-48-7	0.11	5.6
m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
m-Cumenyl methylcarbamate 6	64-00-6	0.056	1.4
Cyclohexanone	108-94-1	0.36	0.75 mg/lmg/L TCLP
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

Table: Universal	Treatment	Standards	
Regulated constituent common name	CAS ¹ number	Wastewater standards concentration ² in mg/lmg/L	Nonwastewater standards concentration ³ in mg/kg unless noted as "mg/lmg/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	15.0
1,2-Dibromoethane / Ethylene dibromide	106-93-4	0.028	15.0
Dibromomethane	74-95-3	0.11	15.0
m-Dichlorobenzene	541-73-1	0.036	6.0
o-Dichlorobenzene	95-50-1	0.088	6.0
p-Dichlorobenzene	106-46-7	0.09	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	30.0
2,4-Dichlorophenol	120-83-2	0.044	14.0
2,6-Dichlorophenol	87-65-0	0.044	14.0
2,4-Dichlorophenoxyacetic acid / 2,4-D	94-75-7	0.72	10.0
1,2-Dichloropropane	78-87-5	0.85	18.0
cis-1,3-Dichloropropylene	10061-01-5	0.036	18.0
trans-1,3-Dichloropropylene	10061-02-6	0.036	18.0
Dieldrin	60-57-1	0.017	0.13
Diethyl phthalate	84-66-2	0.2	28.0
p-Dimethylaminoazobenzene	60-11-7	0.13	NA
2,4-Dimethylaniline (2,4-Xylidine)	95-68-1	0.010	0.66
2-4-Dimethyl phenol	105-67-9	0.036	14.0
Dimethyl phthalate	131-11-3	0.047	28.0

Table: Universal	Treatment	Standards	
Regulated constituent common name	CAS ¹ number	Wastewater standards concentration ² in mg/lmg/L	Nonwastewater standards concentration ³ in mg/kg unless noted as "mg/lmg/L TCLP"
Di-n-butyl phthalate	84-74-2	0.057	28.0
1,4-Dinitrobenzene	100-25-4	0.32	2.3
4,6-Dinitro-o-cresol	534-52-1	0.28	160.0
2,4-Dinitrophenol	51-28-5	0.12	160.0
2,4-Dinitrotoluene	121-14-2	0.32	140.0
2,6-Dinitrotoluene	606-20-2	0.55	28.0
Di-n-octyl phthalate	117-84-0	0.017	28.0
Di-n-propylnitrosamine	621-64-7	0.4	14.0
1,4-Dioxane	123-91-1	12.0	170.0
Diphenylamine (difficult to distinguish from diphenylitrosamine)	122-39-4	0.92	13.0
Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	13.0
1,2-Diphenylhydrazine	122-66-7	0.087	NA
Disulfoton	298-04-3	0.017	6.2
Dithiocarbamates (total) 6	NA	0.028	28.0
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	759-94-4	0.042	1.4
Ethyl acetate	141-78-6	0.34	33.0
Ethyl benzene	100-41-4	0.057	10.0
Ethyl cyanide / Propanenitrile	107-12-0	0.24	360.0
Ethyl ether	60-29-7	0.12	160.0
Ethyl methacrylate	97-63-2	0.14	160.0
Ethylene oxide	75-21-8	0.12	NA

Table: Universal	Treatment	Standards	
Regulated constituent common name	CAS ¹ number	Wastewater standards concentration ² in mg/lmg/L	Nonwastewater standards concentration ³ in mg/kg unless noted as "mg/lmg/L TCLP"
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28.0
Famphur	52-85-7	0.017	15.0
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
Heptachlor	76-44-8	0.0012	0.066
Heptachlor epoxide	1024-57-3	0.016	0.066
1,2,3,4,6,7,8-Heptachlorodibenzo-p- dioxin (1,2,3,4,6,7,8-HpCDD)	35822-46-9	0.000035	0.0025
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562-39-4	0.000035	0.0025
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673-89-7	0.000035	0.0025
Hexachlorobenzene	118-74-1	0.055	10.0
Hexachlorobutadiene	87-68-3	0.055	5.6
Hexachlorocyclopentadiene	77-47-4	0.057	2.4
Hexachloroethane	67-72-1	0.055	30.0
Hexachloropropylene	1888-71-7	0.035	30.0
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	65.0
Isobutyl alcohol	78-83-1	5.6	170.0
Isodrin	465-73-6	0.021	0.066
Isosafrole	120-58-1	0.081	2.6
Kepone	143-50-0	0.0011	0.13
Methacrylonitrile	126-98-7	0.24	84.0

Table: Universal	Treatment	Standards	
Regulated constituent common name	CAS ¹ number	Wastewater standards concentration ² in mg/lmg/L	Nonwastewater standards concentration ³ in mg/kg unless noted as "mg/lmg/L TCLP"
Methanol	67-56-1	5.6	0.75 mg/lmg.L TCLP
Methapyrilene	91-80-5	0.081	1.5
Methiocarb ⁶	2032-65-7	0.056	1.4
Methomyl	16752-77-5	0.028	0.14
Methoxychlor	72-43-5	0.25	0.18
Methyl ethyl ketone	78-93-3	0.28	36.0
Methyl isobutyl ketone	108-10-1	0.14	33.0
Methyl methacrylate	80-62-6	0.14	160.0
Methyl methansulfonate	66-27-3	0.018	NA
Methyl parathion	298-00-0	0.014	4.6
3-Methylchlolanthrene	56-49-5	0.0055	15.0
4,4-Methylene bis(2-chloroaniline)	101-14-4	0.5	30.0
Methylene chloride	75-09-2	0.089	30.0
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
2-Naphthylamine	91-59-8	0.52	NA
o-Nitroaniline	88-74-4	0.27	14.0
p-Nitroaniline	100-01-6	0.028	28.0
Nitrobenzene	98-95-3	0.068	14.0
5-Nitro-o-toluidine	99-55-8	0.32	28.0
o-Nitrophenol	88-75-5	0.028	13.0
p-Nitrophenol	100-02-7	0.12	29.0
N-Nitrosodiethylamine	55-18-5	0.4	28.0
N-Nitrosodimethylamine	62-75-9	0.4	2.3
N-Nitroso-di-n-butylamine	924-16-3	0.4	17.0

Table: Universal	Treatment	Standards	
Regulated constituent common name	CAS ¹ number	Wastewater standards concentration ² in mg/lmg/L	Nonwastewater standards concentration ³ in mg/kg unless noted as "mg/lmg/L TCLP"
N-Nitrosomethylethylamine	10595-95-6	0.4	2.3
N-Nitrosomorpholine	59-89-2	0.4	2.3
N-Nitrosopiperidine	100-75-4	0.013	35.0
N-Nitrosopyrrolidine	930-55-2	0.013	35.0
1,2,3,4,6,7,8,9- Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	0.000063	0.005
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	0.000063	0.005
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	0.1	10.0
Pebulate ⁶	1114-71-2	0.042	1.4
Pentachlorobenzene	608-93-5	0.055	10.0
PeCDDs (all Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
PeCDFs (all Pentachlorodibenzofurans)	NA	0.000035	0.001
Pentachloroethane	76-01-7	0.055	6.0
Pentachloronitrobenzene	82-68-8	0.055	4.8
Pentachlorophenol	87-86-5	0.089	7.4
Phenacetin	62-44-2	0.081	16.0
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
1,3-Phenylenediamine	108-45-2	0.010	0.66
Phorate	298-02-2	0.021	4.6
Phthalic acid	100-21-0	0.055	28.0
Phthalic anhydride	85-44-9	0.055	28.0
Physostigmine ⁶	57-47-6	0.056	1.4

Table: Universal	Treatment	Standards	
Regulated constituent common name	CAS ¹ number	Wastewater standards concentration ² in mg/lmg/L	Nonwastewater standards concentration ³ in mg/kg unless noted as "mg/lmg/L TCLP"
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	16.0
Safrole	94-59-7	0.081	22.0
Silvex / 2,4,5-TP	93-72-1	0.72	7.9
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14.0
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	0.03	7.4
Thiodicarb ⁶	59669-26-0	0.019	1.4
Thiophanate-methyl ⁶	23564-05-8	0.056	1.4
Toluene	108-88-3	0.08	10.0
Toxaphene	8001-35-2	0.0095	2.6
Triallate ⁶	2303-17-5	0.042	1.4
Tribromomethane / Bromoform	75-25-2	0.63	15.0
1,2,4-Trichlorobenzene	120-82-1	0.055	19.0
1,1,1-Trichlorethane	71-55-6	0.054	6.0
1,1,2-Trichlorethane	79-00-5	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0

Table: Universal	Treatment	Standards	
Regulated constituent common name	CAS ¹ number	Wastewater standards concentration ² in mg/lmg/L	Nonwastewater standards concentration ³ in mg/kg unless noted as "mg/lmg/L TCLP"
Trichloromonofluoromethane	75-69-4	0.02	30.0
2,4,5-Trichlorophenol	95-95-4	0.18	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
2,4,5-Trichlorophenoxyacetic acid / 2,4,5-T	93-76-5	0.72	7.9
1,2,3-Trichloropropane	96-18-4	0.85	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.057	30.0
Triethylamine ⁶	101-44-8	0.081	1.5
tris-(2,3-Dibromopropyl) phosphate	126-72-7	0.11	0.1
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	30.0
Inorganic constituents:			
Antimony	7440-36-0	1.9	1.15 mg/lmg/L TCLP
Arsenic	7440-38-2	1.4	5.0 mg/lmg/L TCLP
Barium	7440-39-3	1.2	21.0 mg/l mg/L TCLP
Beryllium	7440-41-7	0.82	1.22 mg/l <u>mg/L</u> TCLP
Cadmium	7440-43-9	0.69	0.11 mg/lmg/L TCLP
Chromium (Total)	7440-47-3	2.77	0.60 mg/lmg/L TCLP
Cyanides (Total) ⁴	57-12-5	1.2	590.0
Cyanides (Amenable) ⁴	57-12-5	0.86	30.0
Fluoride ⁵	16984-48-8	35.0	NA
Lead	7439-92-1	0.69	0.75 mg/lmg/L TCLP
Mercury- nonwastewater from retort	7439-97-6	NA	0.2 mg/l mg/L TCLP
Mercury- all others	7439-97-6	0.15	0.025 mg/l mg/L TCLP
Nickel	7440-02-0	3.98	11.0 mg/l <u>mg/L</u> TCLP
Selenium ⁷	7782-49-2	0.82	5.7 mg/lmg/L TCLP

Table: Universal	Treatment	Standards	
Regulated constituent common name	CAS ¹ number	Wastewater standards concentration ² in mg/lmg/L	Nonwastewater standards concentration ³ in mg/kg unless noted as "mg/lmg/L TCLP"
Silver	7440-22-4	0.43	0.14 mg/lmg/L TCLP
Sulfide ⁵	18496-25-8	14.0	NA
Thallium	7440-28-0	1.4	0.2 mg/lmg/L TCLP
Vanadium ⁵	7440-62-2	4.3	1.6 mg/lmg/L TCLP
Zinc ⁵	7440-66-6	2.61	4.3 mg/l mg/L TCLP

Footnotes:

NA Not applicable.

TCLP Toxicity Characteristic Leaching Procedure

TC Toxicity Characteristic EP Extraction Procedure

- 1 CAS means chemical abstract services. When the EPA hazardous waste number and/oror regulated constituents are described as a combination of a chemical with it's its salts and/oror 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.
- Except for "Metals (EP or TCLP)" and "Cyanides (Total and Amenable)" the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of rules 3745-57-40 to 3745-57-51 or 3745-68-40 to 3745-68-52 of the Administrative Code, 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 paragraph (D) of rule 3745-270-40 of the Administrative Code. All concentration standards for nonwastewaters are based on analysis of grab samples.
- Both "Cyanides (Total)" and "Cyanides (Amenable)" for nonwastewaters are to be analyzed using method 9010C or method 9012B, found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", U.S. EPA publication SW-846, with a sample size of ten grams and a distillation time of one hour and fifteen minutes.

Table: Universal	Treatment	Standards	
Regulated constituent common name	CAS ¹ number	Wastewater standards concentration ² in mg/lmg/L	Nonwastewater standards concentration ³ in mg/kg unless noted as "mg/lmg/L TCLP"

- 5 These constituents are not "underlying hazardous constituents" in characteristic wastes, according to the definition in rule 3745-270-02 of the Administrative Code.
- 6 Between August 26, 1998 and March 4, 1999, these constituents are not "underlying hazardous constituents" as defined in rule 3745-270-02 of the Administrative Code Reserved.
- This constituent is not an "underlying hazardous constituent" as defined in rule 3745-270-02 of the Administrative Code because its universal treatment standards (UTS) level is greater than its TC level, thus a treated selenium waste would always be characteristically hazardous, unless it is treated to below its characteristic level.
- This standard is temporarily deferred for soil exhibiting a hazardous characteristic due to EPA hazardous watewaste numbers D004-D011 only.

(B) Reserved.

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, federal rules, and federal statutory provisions referenced in this rule, see rule 3745-50-11 of the Administrative Code titled "Incorporated by reference."]

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3745-270-49 Alternative land disposal restriction treatment standards for contaminated soil.

(A) Applicability. You shallmust comply with land disposal restrictions (LDRs) contained in Chapter 3745-270 of the Administrative Code 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 shallmust comply with LDRs prior to placing soil contaminated by listed hazardous waste into a land disposal unit:

If LDRs	And LDRs	And if	Then you
Applied to the listed waste when it contaminated the soil*	Apply to the listed waste now		ShallMust comply with LDRs
Did not apply to the listed waste when it contaminated the soil*	Apply to the listed waste now	The soil is determined to contain the listed waste when the soil is first generated	ShallMust comply with LDRs
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 the listed waste when the soil is first generated	Need not comply with LDRs
Did not apply to the listed waste when it contaminated the soil*	Do not apply to the listed waste now		Need not comply with LDRs

^{*} To determine the date any given listed hazardous waste contaminated any given volume of soil, use the last date any given listed hazardous waste was placed into any given land disposal unit or, in the case of an accidental spill, the date of the spill.

(B) Prior to land disposal, contaminated soil identified by paragraph (A) of this rule as needing to comply with LDRs shallmust be treated according to the applicable treatment standards specified in paragraph (C) of this rule or according to the universal treatment standards specified in rule 3745-270-48 of the Administrative Code applicable to the contaminating listed hazardous waste and/or the applicable characteristic of hazardous waste if the soil is characteristic. The treatment standards specified in paragraph (C) of this rule and the universal treatment standards may be modified through a treatment variance approved in accordance

with rule 3745-270-44 of the Administrative Code.

(C) Treatment standards for contaminated soils. Prior to land disposal, contaminated soil identified by paragraph (A) of this rule as needing to comply with LDRs shallmust be treated according to all the standards specified in paragraphs (C) to (C)(3)(b) of this rule or according to the universal treatment standards specified in rule 3745-270-48 of the Administrative Code.

- (1) All soils. Prior to land disposal, all constituents subject to treatment shallmust be treated as follows:
 - (a) For non-metals except carbon disulfide, cyclohexanone, and methanol, treatment shallmust achieve ninety per cent reduction in total constituent concentrations, except as provided by paragraph (C)(1)(c) of this rule.
 - (b) For metals and carbon disulfide, cyclohexanone, and methanol, treatment shallmust achieve ninety per cent reduction in constituent concentrations as measured in leachate from the treated media (tested according to the TCLPtoxicity characteristic leaching procedure) or ninety per cent reduction in total constituent concentrations (when a metal removal treatment technology is used), except as provided by paragraph (C)(1)(c) of this rule.
 - (c) When treatment of any constituent subject to treatment to a ninety per cent 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 UTSthe table in rule 3745-270-48 of the Administrative Code.
- (2) Soils that exhibit the characteristic of ignitability, corrosivity or reactivity. In addition to the treatment required by paragraph (C)(1) of this rule, prior to land disposal, soils that exhibit the characteristic of ignitability, corrosivity, or reactivity shallmust be treated to eliminate these characteristics.
- (3) Soils that contain nonanalyzable constituents. In addition to the treatment requirements of paragraphs (C)(1) and (C)(2) of this rule, prior to land disposal, the following treatment is required for soils that contain nonanalyzable constituents:

(a) For soil that contains only analyzable and nonanalyzable organic constituents, treatment of the analyzable organic constituents to the levels specified in paragraphs (C)(1) and (C)(2) of this rule; or,

- (b) For soil that contains only nonanalyzable constituents, treatment by the method(s) specified in rule 3745-270-42 of the Administrative Code for the waste contained in the soil.
- (D) Constituents subject to treatment. When applying the soil treatment standards in paragraph (C) of this rule, constituents subject to treatment are any constituents listed in Table UTSthe table in rule 3745-270-48 of the Administrative Code that are reasonably expected to be present in any given volume of contaminated soil, except fluoride, selenium, sulfides, vanadium, and zinc, and that are present at concentrations greater than ten times the universal treatment standard. Polychlorinated biphenyls (PCBs) are not constituent subject to treatment in any given volume of soil which exhibits the toxicity characteristic solely because of the presence of metals.
- (E) Management of treatment residuals. Treatment residuals from treating contaminated soil identified by paragraph (A) of this rule as needing to comply with LDRs shallmust be managed as follows:
 - (1) Soil residuals are subject to the treatment standards of this rule;
 - (2) Non-soil residuals are subject to:
 - (a) For soils contaminated by listed hazardous waste, the hazardous waste rules applicable to the listed hazardous waste; and
 - (b) For soils that exhibit a characteristic of hazardous waste, if the non-soil residual also exhibits a characteristic of hazardous waste, the treatment standards applicable to the characteristic hazardous waste.

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R.C. 119.032 review dates: Exempt

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3745-270-50 Prohibitions on storage of restricted wastes.

- (A) Except as provided in this rule, the storage of hazardous wastes restricted from land disposal under rules 3745-270-20 to 3745-270-39 of the Administrative Code or Section 3004(d) of RCRA is prohibited, unless the following conditions are met:
 - (1) 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 rule 3745-52-34rules 3745-52-16 and 3745-52-17 of the Administrative Code and Chapters 3745-54 to 3745-57, 3745-65 to 3745-69, 3745-205, and 3745-256 of the Administrative Code.

[Comment: A generator who is in existence on the effective date of a rule in Chapter 3745-270 of the Administrative Code and who mustshall store hazardous wastes for longer than ninety days due to the rules of Chapter 3745-270 of the Administrative Code becomes an owner or operator of a storage facility and mustshall obtain an Ohio hazardous waste installation and operation permit. Such a facility may qualify for a permit by rule upon compliance with rule 3745-50-46 and paragraph (C) of rule 3745-50-40 of the Administrative Code.]

- (2) 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:
 - (a) Each container is clearly marked to identify its the container's contents and the date each period of accumulation begins; with all of the following:
 - (i) The words "Hazardous Waste."
 - (ii) The applicable EPA hazardous waste numbers in rules 3745-51-20 to 3745-51-24 and 3745-51-30 to 3745-51-35 of the Administrative Code, or use a nationally recognized electronic system, such as bar coding, to identify the EPA hazardous waste numbers.
 - (iii) An indication of the hazards of the contents. Examples include, but are not limited to, the following:
 - (a) The applicable hazardous waste characteristic (i.e., ignitable, corrosive, reactive, toxic).

(b) Hazard communication consistent with the department of transportation requirements at 49 C.F.R. Part 172 subpart E (labeling) or subpart F (placarding).

- (c) A hazard statement or pictogram consistent with the cccupational safety and health administration hazard communication standard at 29 C.F.R. 1910.1200.
- (d) A chemical hazard label consistent with the national fire protection association code 704.
- (iv) The date each period of accumulation begins.
- (b) Each tank is clearly marked with a description of itsthe tank's 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 mustshall comply with the operating record requirements specified in rule 3745-54-73 or 3745-65-73 of the Administrative Code.
- (3) A transporter stores manifested shipments of such wastes at a transfer facility for ten days or less.
- (4) A healthcare facility accumulates such wastes in containers on-site solely for the purpose of the accumulation of such quantities of hazardous waste pharmaceuticals as necessary to facilitate proper recovery, treatment, or disposal, and the healthcare facility complies with the applicable requirements in rules 3745-266-502 and 3745-266-503 of the Administrative Code.
- (5) A reverse distributor accumulates such wastes in containers on-site solely for the purpose of the accumulation of such quantities of hazardous waste pharmaceuticals as necessary to facilitate proper recovery, treatment, or disposal, and the reverse distributor complies with rule 3745-266-510 of the Administrative Code.
- (B) An owner or operator of a treatment, storage, or disposal facility may store such wastes for up to one year unless Ohio EPA can demonstrate that such storage was not solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.
- (C) An owner 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 waste as are necessary to facilitate proper recovery, treatment, or disposal.

- (D) If a generator's waste is exempt from a prohibition on the type of land disposal utilized for the waste (for example, because of an approved case-by-case extension under rule 3745-270-05 of the Administrative Code, an approved petition under rule 3745-270-06 of the Administrative Code, or a national capacity variance under rules 3745-270-30 to 3745-270-39 of the Administrative Code), the prohibition in paragraph (A) of this rule does not apply during the period of such exemption.
- (E) The prohibition in paragraph (A) of this rule does not apply to hazardous wastes that meet the treatment standards specified in rule 3745-270-42 of the Administrative Code or the treatment standards specified in a variance granted under rule 3745-270-44 of the Administrative Code, or, where treatment standards have not been specified, is in compliance with the applicable prohibitions specified in <u>rule</u> 3745-270-32 of the Administrative Code or in Section 3004 of RCRA.
- (F) Liquid hazardous wastes containing polychlorinated biphenyls (PCBs) at concentrations greater than or equal to fifty parts per million mustshall be stored at a facility that meets the requirements of complies with 40 CFRC.F.R. 761.65(b) and mustshall be removed from storage and treated or disposed as required by Chapter 3745-270 of the Administrative Code within one year of after the date when such wastes are first placed into storage. Paragraph (C) of this rule does not apply to such PCB waste prohibited under rule 3745-270-32 of the Administrative Code.
- (G) The prohibition and requirements in this rule do not apply to hazardous remediation wastes stored in a staging pile approved pursuant to rule 3745-57-74 of the Administrative Code.

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, federal rules, and federal statutory provisions referenced in this rule, see rule 3745-50-11 of the Administrative Code titled "Incorporated by reference."]

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