

TITLE 35: ENVIRONMENTAL PROTECTION  
SUBTITLE G: WASTE DISPOSAL  
CHAPTER I: POLLUTION CONTROL BOARD  
SUBCHAPTER c: HAZARDOUS WASTE OPERATING REQUIREMENTS

PART 728  
LAND DISPOSAL RESTRICTIONS

SUBPART A: GENERAL

Section	
728.101	Purpose, Scope, and Applicability
728.102	Definitions
728.103	Dilution Prohibited as a Substitute for Treatment
728.104	Treatment Surface Impoundment Exemption
728.105	Procedures for Case-by-Case Extensions to an Effective Date
728.106	Petitions to Allow Land Disposal of a Waste Prohibited Pursuant to Subpart C
728.107	Testing, Tracking, and Recordkeeping Requirements for Generators, Reverse Distributors, Treaters, and Disposal Facilities
728.108	Landfill and Surface Impoundment Disposal Restrictions (Repealed)
728.109	Special Rules for Characteristic Wastes

SUBPART B: SCHEDULE FOR LAND DISPOSAL PROHIBITION AND  
ESTABLISHMENT OF TREATMENT STANDARDS

Section	
728.110	First Third (Repealed)
728.111	Second Third (Repealed)
728.112	Third Third (Repealed)
728.113	Newly Listed Wastes
728.114	Surface Impoundment Exemptions

SUBPART C: PROHIBITION ON LAND DISPOSAL

Section	
728.120	Waste-Specific Prohibitions: Dyes and Pigments Production Wastes
728.130	Waste-Specific Prohibitions: Wood Preserving Wastes
728.131	Waste-Specific Prohibitions: Dioxin-Containing Wastes
728.132	Waste-Specific Prohibitions: Soils Exhibiting the Toxicity Characteristic for Metals and Containing PCBs
728.133	Waste-Specific Prohibitions: Chlorinated Aliphatic Wastes
728.134	Waste-Specific Prohibitions: Toxicity Characteristic Metal Wastes
728.135	Waste-Specific Prohibitions: Petroleum Refining Wastes
728.136	Waste-Specific Prohibitions: Inorganic Chemical Wastes
728.137	Waste-Specific Prohibitions: Ignitable and Corrosive Characteristic Wastes Whose Treatment Standards Were Vacated

- 728.138 Waste-Specific Prohibitions: Newly-Identified Organic Toxicity Characteristic Wastes and Newly-Listed Coke By-Product and Chlorotoluene Production Wastes
- 728.139 Waste-Specific Prohibitions: Spent Aluminum Potliners and Carbamate Wastes

#### SUBPART D: TREATMENT STANDARDS

##### Section

- 728.140 Applicability of Treatment Standards
- 728.141 Treatment Standards Expressed as Concentrations in Waste Extract
- 728.142 Treatment Standards Expressed as Specified Technologies
- 728.143 Treatment Standards Expressed as Waste Concentrations
- 728.144 USEPA Variance from a Treatment Standard
- 728.145 Treatment Standards for Hazardous Debris
- 728.146 Alternative Treatment Standards Based on HTMR
- 728.148 Universal Treatment Standards
- 728.149 Alternative LDR Treatment Standards for Contaminated Soil

#### SUBPART E: PROHIBITIONS ON STORAGE

##### Section

- 728.150 Prohibitions on Storage of Restricted Wastes
- 728.APPENDIX A Toxicity Characteristic Leaching Procedure (TCLP) (Repealed)
- 728.APPENDIX B Treatment Standards (As concentrations in the Treatment Residual Extract) (Repealed)
- 728.APPENDIX C List of Halogenated Organic Compounds Regulated under Section 728.132
- 728.APPENDIX D Wastes Excluded from Lab Packs
- 728.APPENDIX E Organic Lab Packs (Repealed)
- 728.APPENDIX F Technologies to Achieve Deactivation of Characteristics
- 728.APPENDIX G Federal Effective Dates
- 728.APPENDIX H National Capacity LDR Variances for UIC Wastes
- 728.APPENDIX I EP Toxicity Test Method and Structural Integrity Test
- 728.APPENDIX J Recordkeeping, Notification, and Certification Requirements (Repealed)
- 728.APPENDIX K Metal-Bearing Wastes Prohibited from Dilution in a Combustion Unit According to Section 728.103(c)
- 728.TABLE A Constituent Concentrations in Waste Extract (CCWE)
- 728.TABLE B Constituent Concentrations in Wastes (CCW)
- 728.TABLE C Technology Codes and Description of Technology-Based Standards
- 728.TABLE D Technology-Based Standards by USEPA Hazardous Waste Number
- 728.TABLE E Standards for Radioactive Mixed Waste
- 728.TABLE F Alternative Treatment Standards for Hazardous Debris
- 728.TABLE G Alternative Treatment Standards Based on HTMR
- 728.TABLE H Wastes Excluded from CCW Treatment Standards
- 728.TABLE I Generator Paperwork Requirements
- 728.TABLE T Treatment Standards for Hazardous Wastes
- 728.TABLE U Universal Treatment Standards (UTS)

AUTHORITY: Implementing Sections 7.2 and 22.4 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/7.2, 22.4, and 27].

SOURCE: Adopted in R87-5 at 11 Ill. Reg. 19354, effective November 12, 1987; amended in R87-39 at 12 Ill. Reg. 13046, effective July 29, 1988; amended in R89-1 at 13 Ill. Reg. 18403, effective November 13, 1989; amended in R89-9 at 14 Ill. Reg. 6232, effective April 16, 1990; amended in R90-2 at 14 Ill. Reg. 14470, effective August 22, 1990; amended in R90-10 at 14 Ill. Reg. 16508, effective September 25, 1990; amended in R90-11 at 15 Ill. Reg. 9462, effective June 17, 1991; amended in R90-11 at 15 Ill. Reg. 11937, effective August 12, 1991; amendment withdrawn at 15 Ill. Reg. 14716, October 11, 1991; amended in R91-13 at 16 Ill. Reg. 9619, effective June 9, 1992; amended in R92-10 at 17 Ill. Reg. 5727, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20692, effective November 22, 1993; amended in R93-16 at 18 Ill. Reg. 6799, effective April 26, 1994; amended in R94-7 at 18 Ill. Reg. 12203, effective July 29, 1994; amended in R94-17 at 18 Ill. Reg. 17563, effective November 23, 1994; amended in R95-6 at 19 Ill. Reg. 9660, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 11100, effective August 1, 1996; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 783, effective December 16, 1997; amended in R98-12 at 22 Ill. Reg. 7685, effective April 15, 1998; amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. 17706, effective September 28, 1998; amended in R98-21/R99-2/R99-7 at 23 Ill. Reg. 1964, effective January 19, 1999; amended in R99-15 at 23 Ill. Reg. 9204, effective July 26, 1999; amended in R00-13 at 24 Ill. Reg. 9623, effective June 20, 2000; amended in R01-3 at 25 Ill. Reg. 1296, effective January 11, 2001; amended in R01-21/R01-23 at 25 Ill. Reg. 9181, effective July 9, 2001; amended in R02-1/R02-12/R02-17 at 26 Ill. Reg. 6687, effective April 22, 2002; amended in R03-18 at 27 Ill. Reg. 13045, effective July 17, 2003; amended in R05-8 at 29 Ill. Reg. 6049, effective April 13, 2005; amended in R06-5/R06-6/R06-7 at 30 Ill. Reg. 3800, effective February 23, 2006; amended in R06-16/R06-17/R06-18 at 31 Ill. Reg. 1254, effective December 20, 2006; amended in R07-5/R07-14 at 32 Ill. Reg. 12840, effective July 14, 2008; amended in R09-3 at 33 Ill. Reg. 1186, effective December 30, 2008; amended in R11-2/R11-16 at 35 Ill. Reg. 18131, effective October 14, 2011; amended in R12-7 at 36 Ill. Reg. 8790, effective June 4, 2012; amended in R13-15 at 37 Ill. Reg. 17951, effective October 24, 2013; amended in R16-7 at 40 Ill. Reg. 12052, effective August 9, 2016; amended in R17-14/R17-15/R18-12/R18-31 at 42 Ill. Reg. 24924, effective November 19, 2018; amended in R20-8/R20-16 at 44 Ill. Reg. 15055, effective September 3, 2020.

## SUBPART A: GENERAL

### Section 728.101 Purpose, Scope, and Applicability

- a) This Part 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 this Part or 35 Ill. Adm. Code 721, the requirements of this Part apply to persons that generate or transport hazardous

waste and to owners and operators of hazardous waste treatment, storage, and disposal facilities.

- c) Restricted wastes may continue to be land disposed as follows:
- 1) If a person has been granted an extension to the effective date of a prohibition under Subpart C or under Section 728.105, with respect to those wastes covered by the extension;
  - 2) If a person has been granted an exemption from a prohibition under a petition under Section 728.106, with respect to those wastes and units covered by the petition;
  - 3) A waste that is hazardous only because it exhibits a characteristic of hazardous waste and that is otherwise prohibited under this Part is not prohibited if the following is true of the waste:
    - A) The waste is disposed into a non-hazardous or hazardous waste injection well, as defined in 35 Ill. Adm. Code 704.106(a); and
    - B) The waste does not exhibit any prohibited characteristic of hazardous waste identified in Subpart C of 35 Ill. Adm. Code 721 at the point of injection.
  - 4) A waste that is hazardous only because it exhibits a characteristic of hazardous waste and that is otherwise prohibited under this Part is not prohibited if the waste meets any of the following criteria, unless the waste is subject to a specified method of treatment other than DEACT in Section 728.140 or is D003 reactive cyanide:
    - A) Any of the following is true of either treatment or management of the waste:
      - i) The waste is managed in a treatment system that subsequently discharges to waters of the United States under a permit issued under 35 Ill. Adm. Code 309;
      - ii) The waste is treated for purposes of the pretreatment requirements of 35 Ill. Adm. Code 307 and 310; or
      - iii) The waste is managed in a zero discharge system engaged in Clean Water Act (CWA)-equivalent treatment, as defined in Section 728.137(a); and
    - B) The waste no longer exhibits a prohibited characteristic of hazardous waste at the point of land disposal (i.e., placement in a surface impoundment).

- d) This Part does not affect the availability of a waiver under Section 121(d)(4) of the federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (42 USC 9621(d)(4)).
- e) The following hazardous wastes are not subject to any provision of this Part:
  - 1) Waste generated by a VSQG, as defined in 35 Ill. Adm. Code 720.110;
  - 2) Waste pesticide that a farmer disposes of under 35 Ill. Adm. Code 722.170;
  - 3) Waste identified or listed as hazardous after November 8, 1984, for which USEPA has not promulgated a land disposal prohibition or treatment standard; and
  - 4) De minimis losses of waste that exhibits a characteristic of hazardous waste to wastewaters are not considered to be prohibited waste 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 or 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; 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 waste that does not exceed one percent of the total flow of wastewater into the facility's headworks on an annual basis, or with a combined annualized average concentration not exceeding one part per million (ppm) in the headworks of the facility's wastewater treatment or pretreatment facility.
- f) A universal waste handler or universal waste transporter (as defined in 35 Ill. Adm. Code 720.110) is exempt from Sections 728.107 and 728.150 for the hazardous wastes listed below. Such a handler or transporter is subject to regulation under 35 Ill. Adm. Code 733.
  - 1) Batteries, as described in 35 Ill. Adm. Code 733.102;
  - 2) Pesticides, as described in 35 Ill. Adm. Code 733.103;
  - 3) Mercury-containing equipment, as described in 35 Ill. Adm. Code 733.104;
  - 4) Lamps, as described in 35 Ill. Adm. Code 733.105; and
  - 5) Aerosol cans, as described in 35 Ill. Adm. Code 733.106.
- g) This Part is cumulative with the land disposal restrictions of 35 Ill. Adm. Code 729. The Environmental Protection Agency (Agency) must not issue a

wastestream authorization under 35 Ill. Adm. Code 709 or Section 22.6 or 39(h) of the Act unless the waste meets the requirements of this Part as well as 35 Ill. Adm. Code 729.

- h) Electronic Reporting. The filing of any document under any provision of this Part as an electronic document is subject to 35 Ill. Adm. Code 720.104.

BOARD NOTE: Subsection (h) is derived from 40 CFR 3, 271.10(b), 271.11(b), and 271.12(h).

(Source: Amended at 44 Ill. Reg. 15495, effective September 3, 2020)

### **Section 728.102 Definitions**

When used in this Part, the following terms have the meanings given below. All other terms have the meanings given under 35 Ill. Adm. Code 702.110, 720.110, or 721.102 through 721.104.

“Agency” means the Illinois Environmental Protection Agency.

“Board” means the Illinois Pollution Control Board.

“CERCLA” means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 USC 9601 et seq.)

“Debris” means solid material exceeding a 60 mm particle size that is intended for disposal and that is a manufactured object; plant or animal matter; or natural geologic material. However, the following materials are not debris: any material for which a specific treatment standard is provided in Subpart D, namely lead acid batteries, cadmium batteries, and radioactive lead solids; process residuals, such as smelter slag and residues from the treatment of waste, wastewater, sludges, or air emission residues; and intact containers of hazardous waste that are not ruptured and that retain at least 75 percent of their original volume. A mixture of debris that has not been treated to the standards provided by Section 728.145 and other material is subject to regulation as debris if the mixture is comprised primarily of debris, by volume, based on visual inspection.

“Halogenated organic compounds” or “HOCs” means those compounds having a carbon-halogen bond that are listed under Appendix C.

“Hazardous constituent” or “hazardous constituents” means those constituents listed in Appendix H to 35 Ill. Adm. Code 721.

“Hazardous debris” means debris that contains a hazardous waste listed in Subpart D of 35 Ill. Adm. Code 721 or that exhibits a characteristic of hazardous waste identified in Subpart C of 35 Ill. Adm. Code 721. Any deliberate mixing of prohibited waste with debris that changes its treatment classification (i.e., from

waste to hazardous debris) is not allowed under the dilution prohibition in Section 728.103.

“Inorganic metal-bearing waste” is one for which USEPA has established treatment standards for metal hazardous constituents that does not otherwise contain significant organic or cyanide content, as described in Section 728.103(b)(1), and which is specifically listed in Appendix K.

“Land disposal” means placement in or on the land, except in a corrective action management unit or staging pile, and “land disposal” 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.

“Land disposal restriction” or “LDR” is a restriction imposed on the land disposal of a hazardous waste pursuant to this Part or 35 Ill. Adm. Code 738. The land disposal of hazardous waste is generally prohibited, except where the activity constituting land disposal is specifically allowed, pursuant to this Part or 35 Ill. Adm. Code 738.

BOARD NOTE: The Board added this definition based on the preamble discussions at 51 Fed. Reg. 40572, 40573-74 (November 7, 1986) and 53 Fed. Reg. 28118, 28119-20 (July 26, 1988). The USEPA publication “Terms of Environment Glossary, Abbreviations, and Acronyms” (December 1997), USEPA, Communications, Education, and Public Affairs, EPA 175/B-97-001, defines “land disposal restrictions” as follows: “Rules that require hazardous wastes to be treated before disposal on land to destroy or immobilize hazardous constituents that might migrate into soil and ground water.”

“Nonwastewaters” are wastes that do not meet the criteria for “wastewaters” in this Section.

“Polychlorinated biphenyls” or “PCBs” are halogenated organic compounds defined in accordance with federal 40 CFR 761.3 (Definitions), incorporated by reference in 35 Ill. Adm. Code 720.111(b).

“ppm” means parts per million.

“RCRA corrective action” means corrective action taken under 35 Ill. Adm. Code 724.200 or 725.193, federal 40 CFR 264.100 or 265.93, or similar regulations in other states with RCRA programs authorized by USEPA pursuant to 40 CFR 271.

“Soil” means unconsolidated earth material composing the superficial geologic strata (material overlying bedrock), consisting of clay, silt, sand, or gravel size particles, as classified by the United States Natural Resources Conservation Service, or a mixture of such materials with liquids, sludges, or solids that is inseparable by simple mechanical removal processes and which is made up primarily of soil by volume based on visual inspection. Any deliberate mixing of prohibited waste with debris that changes its treatment classification (i.e., from

waste to hazardous debris) is not allowed under the dilution prohibition in Section 728.103.

“Underlying hazardous constituent” means any constituent listed in Table U, “Universal Treatment Standards (UTS)”, except fluoride, selenium, sulfides, vanadium, and zinc, that can reasonably be expected to be present at the point of generation of the hazardous waste at a concentration above the constituent-specific UTS treatment standard.

“USEPA” or “U.S. EPA” means the United States Environmental Protection Agency.

“Wastewaters” are wastes that contain less than one percent by weight total organic carbon (TOC) and less than one percent by weight total suspended solids (TSS).

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

### **Section 728.103 Dilution Prohibited as a Substitute for Treatment**

- a) Except as provided in subsection (b), no generator, transporter, handler, or owner or operator of a treatment, storage, or disposal facility must 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 Subpart D, to circumvent the effective date of a prohibition in Subpart C, to otherwise avoid a prohibition in Subpart C, or to circumvent a land disposal restriction imposed by RCRA section 3004 (42 USC 6924).
- b) Dilution of waste that is hazardous only because it exhibits a characteristic of hazardous waste in a treatment system that treats wastes subsequently discharged to a water of the State pursuant to an NPDES permit issued under 35 Ill. Adm. Code 309, that treats wastes in a CWA-equivalent treatment system, or that treats wastes for purposes of pretreatment requirements under 35 Ill. Adm. Code 310 is not impermissible dilution for purposes of this Section, unless a method other than DEACT has been specified in Section 728.140 as the treatment standard or unless the waste is a D003 reactive cyanide wastewater or nonwastewater.
- c) Combustion of waste designated by any of the USEPA hazardous waste numbers listed in Appendix J is prohibited, unless the waste can be demonstrated to comply with one or more of the following criteria at the point of generation or after any bona fide treatment, such as cyanide destruction prior to combustion (unless otherwise specifically prohibited from combustion):
  - 1) The waste contains hazardous organic constituents or cyanide at levels exceeding the constituent-specific treatment standard found in Section 728.148;



- 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 has reasonable heating value, such as greater than or equal to 5,000 Btu per pound, at the point of generation;
  - 4) The waste is co-generated with wastes for which combustion is a required method of treatment;
  - 5) The waste is subject to any federal or state requirements necessitating reduction of organics (including biological agents); or
  - 6) The waste contains greater than one percent Total Organic Carbon (TOC).
- 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.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

#### **Section 728.104 Treatment Surface Impoundment Exemption**

- a) Wastes that are otherwise prohibited from land disposal under this Part may be treated in a surface impoundment or series of impoundments provided that all of the following conditions are fulfilled:
  - 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 Subpart D or prohibition levels in Subpart C, the residues from treatment are analyzed, as specified in Section 728.107 or 728.132, to determine if they 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 35 Ill. Adm. Code 724.113 or 725.113, must 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) must be removed at least annually: residues that do not

meet the treatment standards promulgated under Subpart D; residues that do not meet the prohibition levels established under Subpart C or imposed by federal statute (where no treatment standards have been established); residues that are from the treatment of wastes prohibited from land disposal under Subpart C (where no treatment standards have been established and no prohibition levels apply); or residues from managing listed wastes that are not delisted under 35 Ill. Adm. Code 720.122. 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 must not be placed in any other surface impoundment for subsequent management.
- D) Recordkeeping. Sampling, testing, and recordkeeping provisions of 35 Ill. Adm. Code 724.113 or 725.113 apply;

3) The impoundment meets the design requirements of 35 Ill. Adm. Code 724.321(c) or 725.321(a) even though the unit may not be new, expanded or a replacement, and must be in compliance with applicable groundwater monitoring requirements of Subpart F of 35 Ill. Adm. Code 724 or Subpart F of 35 Ill. Adm. Code 725, unless any of the following conditions is fulfilled:

- A) The impoundment is exempted pursuant to 35 Ill. Adm. Code 724.321(d) or (e), or to 35 Ill. Adm. Code 725.321(c) or (d);
- B) Upon application by the owner or operator, the Agency has by permit provided that the requirements of this Part do not apply on the basis that the surface impoundment fulfills all of the following conditions:
  - i) The impoundment has at least one liner, for which there is no evidence that such liner is leaking;
  - ii) The impoundment is located more than one-quarter mile from an underground source of drinking water; and
  - iii) The impoundment is in compliance with generally applicable groundwater monitoring requirements for facilities with permits; or
- C) Upon application by the owner or operator, the Board has, pursuant to Subpart D of 35 Ill. Adm. Code 104, granted an adjusted standard from the requirements of this Part. The justification for such an adjusted standard must be 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 groundwater or surface water at any future time; and

- 4) The owner or operator submits to the Agency a written certification that the requirements of subsection (a)(3) have been met. The following certification is required:

I certify under penalty of law that the requirements of 35 Ill. Adm. Code 728.104(a)(3) 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 a treatment for purposes of an exemption under this Section.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

#### **Section 728.105 Procedures for Case-by-Case Extensions to an Effective Date**

Any person may apply to USEPA for an extension of an effective date pursuant to 40 CFR 268.5. Any extension that is granted by USEPA will be deemed an extension of the effective date of the derivative Board rule.

(Source: Amended at 30 Ill. Reg. 3800, effective February 23, 2006)

#### **Section 728.106 Petitions to Allow Land Disposal of a Waste Prohibited Pursuant to Subpart C**

- a) Any person seeking an exemption from a prohibition pursuant to Subpart C for the disposal of a restricted hazardous waste in a particular unit or units must submit a petition to the Board demonstrating, to a reasonable degree of certainty, that there will be no migration of hazardous constituents from the disposal unit or injection zone for as long as the wastes remain hazardous. The demonstration must include the following components:
  - 1) An identification of the specific waste and the specific unit for which the demonstration will be made;
  - 2) A waste analysis to describe fully the chemical and physical characteristics of the subject waste;
  - 3) A comprehensive characterization of the disposal unit site including an analysis of background air, soil, and water quality;
  - 4) A monitoring plan that detects migration at the earliest practical time;

- 5) Sufficient information to assure the Agency that the owner or operator of a land disposal unit receiving restricted wastes will comply with other applicable federal, State, and local laws;
  - 6) Whether the facility is in interim status, or, if a RCRA permit has been issued, the term of the permit.
- b) The demonstration referred to in subsection (a) must meet the following criteria:
- 1) All waste and environmental sampling, test and analysis data must be accurate and reproducible to the extent that state-of-the-art techniques allow;
  - 2) All sampling, testing and estimation techniques for chemical and physical properties of the waste and all environmental parameters must conform with “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, and with “Generic Quality Assurance Project Plan for Land Disposal Restrictions Program”, USEPA publication number EPA-530/SW-87-011, each incorporated by reference in 35 Ill. Adm. Code 720.111.
  - 3) Simulation models must be calibrated for the specific waste and site conditions, and verified for accuracy by comparison with actual measurements;
  - 4) A quality assurance and quality control plan that addresses all aspects of the demonstration and conforms with “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, and with “Generic Quality Assurance Project Plan for Land Disposal Restrictions Program”, USEPA publication number EPA-530/SW-87-011; and
  - 5) An analysis must be performed to identify and quantify any aspects of the demonstration that contribute significantly to uncertainty. This analysis must include an evaluation of the consequences of predictable future events, including, but not limited to, earthquakes, floods, severe storm events, droughts, or other natural phenomena.
- c) Each petition referred to in subsection (a) must include the following:
- 1) A monitoring plan that describes the monitoring program installed at or around the unit to verify continued compliance with the conditions of the adjusted standard. This monitoring plan must provide information on the monitoring of the unit or the environment around the unit. The following specific information must be included in the plan:
    - A) The media monitored in the cases where monitoring of the environment around the unit is required;

- B) The type of monitoring conducted at the unit, in the cases where monitoring of the unit is required;
  - C) The location of the monitoring stations;
  - D) The monitoring interval (frequency of monitoring at each station);
  - E) The specific hazardous constituents to be monitored;
  - F) The implementation schedule for the monitoring program;
  - G) The equipment used at the monitoring stations;
  - H) The sampling and analytical techniques employed; and
  - I) The data recording and reporting procedures.
- 2) Where applicable, the monitoring program described in subsection (c)(1) must be in place for a period of time specified by the Board, as part of its approval of the petition, prior to receipt of prohibited waste at the unit.
  - 3) The monitoring data collected according to the monitoring plan specified pursuant to subsection (c)(1) must be sent to the Agency according to a format and schedule specified and approved in the monitoring plan.
  - 4) A copy of the monitoring data collected under the monitoring plan specified pursuant to subsection (c)(1) must be kept on-site at the facility in the operating record.
  - 5) The monitoring program specified pursuant to subsection (c)(1) must meet the following criteria:
    - A) All sampling, testing, and analytical data must be approved by the Board and must provide data that is accurate and reproducible;
    - B) All estimation and monitoring techniques must be approved by the Board; and
    - C) A quality assurance and quality control plan addressing all aspects of the monitoring program must be provided to and approved by the Board.
- d) Each petition must be submitted to the Board as provided in Subpart D of 35 Ill. Adm. Code 104.
  - e) After a petition has been approved, the owner or operator must report any changes in conditions at the unit or the environment around the unit that significantly depart from the conditions described in the petition and affect the potential for migration of hazardous constituents from the units as follows:

- 1) If the owner or operator plans to make changes to the unit design, construction, or operation, the owner or operator must do the following at least 90 days prior to making the change:
  - A) File a petition for modification of or a new petition to amend an adjusted standard with the Board reflecting the changes; or
  - B) Demonstrate to the Agency that the change can be made consistent with the conditions of the existing adjusted standard.
- 2) If the owner or operator discovers that a condition at the site that was modeled or predicted in the petition does not occur as predicted, this change must be reported, in writing, to the Agency within 10 days after discovering the change. The Agency must determine whether the reported change from the terms of the petition requires further action, which may include termination of waste acceptance, a petition for modification of or a new petition for an adjusted standard.
- f) If there is migration of hazardous constituents from the unit, as determined by the owner or operator, the owner or operator must do the following:
  - 1) It must immediately suspend receipt of prohibited waste at the unit, and
  - 2) It must notify the Agency, in writing, within 10 days after the determination that a release has occurred.
  - 3) Following receipt of the notification, the Agency must do the following within 60 days after receiving notification:
    - A) It must determine whether the owner or operator can continue to receive prohibited waste in the unit under the conditions of the adjusted standard.
    - B) If modification or vacation of the adjusted standard is necessary, it must file a motion to modify or vacate the adjusted standard with the Board.
    - C) It must determine whether further examination of any migration is required pursuant to the applicable provisions of 35 Ill. Adm. Code 724 or 725.
- g) Each petition must include the following statement signed by the petitioner or an authorized representative:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this petition and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information. I believe that submitted

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

- h) After receiving a petition, the Board may request any additional information that may be required to evaluate the demonstration.
- i) If approved, the petition will apply to land disposal of the specific restricted waste at the individual disposal unit described in the demonstration and will not apply to any other restricted waste at that disposal unit, or to that specific restricted waste at any other disposal unit.
- j) The Board will give public notice and provide an opportunity for public comment, as provided in Subpart D of 35 Ill. Adm. Code 104. Notice of a final decision on a petition will be published in the Environmental Register.
- k) The term of a petition granted pursuant to this Section will be no longer than the term of the RCRA permit if the disposal unit is operating pursuant to a RCRA permit, or up to a maximum of 10 years from the date of approval provided pursuant to subsection (g) if the unit is operating under interim status. In either case, the term of the granted petition expires upon the termination or denial of a RCRA permit, or upon the termination of interim status or when the volume limit of waste to be land disposed during the term of petition is reached.
- l) Prior to the Board's decision, the applicant must comply with all restrictions on land disposal pursuant to this Part once the effective date for the waste has been reached.
- m) The petition granted by the Board does not relieve the petitioner of responsibilities in the management of hazardous waste pursuant to 35 Ill. Adm. Code 702, 703, 720 through 728, and 738.
- n) Liquid hazardous wastes containing PCBs at concentrations greater than or equal to 500 ppm are not eligible for an adjusted standard pursuant to this Section.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

#### **Section 728.107 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 must determine if the waste has to be treated before it can be land disposed. This is done by determining if the hazardous waste meets the treatment standards in Section 728.140, 728.145, or 728.149. This determination can be made concurrently with the hazardous waste determination required in 35 Ill. Adm. Code 722.111, in either of two ways: testing the waste or using knowledge of the waste. If the generator tests the waste, testing determines the total

concentration of hazardous constituents or the concentration of hazardous constituents in an extract of the waste obtained using Method 1311 (Toxicity Characteristic Leaching Procedure) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a), depending on whether the treatment standard for the waste is expressed as a total concentration or concentration of hazardous constituent in the waste extract. (Alternatively, the generator must send the waste to a RCRA-permitted hazardous waste treatment facility, if the waste treatment facility must comply with the requirements of 35 Ill. Adm. Code 724.113 and subsection (b).) In addition, some hazardous wastes must be treated by particular treatment methods before they can be land disposed and some soils are contaminated by such hazardous wastes. These treatment standards are also found in Section 728.140 and Table T, and are described in detail in Table C. These wastes and soils contaminated with such wastes do not need to be tested (however, if they are in a waste mixture, other wastes with concentration level treatment standards must be tested). If a generator determines that it is managing a waste or soil contaminated with a waste that displays a hazardous characteristic of ignitability, corrosivity, reactivity, or toxicity, the generator must comply with the special requirements of Section 728.109 in addition to any applicable requirements in this Section.

- 2) If the waste or contaminated soil does not meet the treatment standard or if the generator chooses not to make the determination of whether its waste must be treated, the generator must send a one-time written notice to each treatment or storage facility receiving the waste with the initial shipment of waste to each treatment or storage facility, and the generator must place a copy of the one-time notice in the file. The notice must include the information in column “728.107(a)(2)” of the Generator Paperwork Requirements Table in Table I. (Alternatively, if the generator chooses not to make the determination of whether the waste must be treated, the notification must include the USEPA hazardous waste numbers and manifest number of the first shipment, and it must include the following statement: “This hazardous waste may or may not be subject to the LDR treatment standards. The treatment facility must make the determination.”) No further notification is necessary until such time that the waste or facility changes, in which case a new notification must be sent and a copy placed in the generator’s file.
- 3) If the waste or contaminated soil meets the treatment standard at the original point of generation, the waste generator must do the following:
  - A) With the initial shipment of waste to each treatment, storage, or disposal facility, the generator must send a one-time written notice to each treatment, storage, or disposal facility receiving the waste, and place a copy in its own file. The notice must include the



information indicated in column “728.107(a)(3)” of the Generator Paperwork Requirements Table in Table I 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 Subpart D of 35 Ill. Adm. Code 728. I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

- B) For contaminated soil, with the initial shipment of wastes to each treatment, storage, or disposal facility, the generator must send a one-time written notice to each facility receiving the waste and place a copy in the file. The notice must include the information in the column headed “(a)(3)” in Table I.
  - C) If the waste changes, the generator must send a new notice and certification to the receiving facility and place a copy in its files. A generator of hazardous debris excluded from the definition of hazardous waste under 35 Ill. Adm. Code 721.103(f) is 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 requirement that hazardous wastes or contaminated soil meet treatment standards before they can be land disposed. These include, but are not limited to, case-by-case extensions under Section 728.105, disposal in a no-migration unit under Section 728.106, or a national capacity variance or case-by-case capacity variance under Subpart C. If a generator’s waste is so exempt, then with the initial shipment of waste, the generator must send a one-time written notice to each land disposal facility receiving the waste. The notice must include the information indicated in column “728.107(a)(4)” of the Generator Paperwork Requirements Table in Table I. If the waste changes, the generator must send a new notice to the receiving facility, and place a copy in its file.
- 5) If a generator is managing and treating prohibited waste or contaminated soil in tanks, containers, or containment buildings regulated under 35 Ill. Adm. Code 722.115, 722.116, and 722.117 to meet applicable LDR treatment standards found at Section 728.140, the generator must develop and follow a written waste analysis plan that describes the procedures it will carry out to comply with the treatment standards. (Generators treating

hazardous debris under the alternative treatment standards of Table F, however, are not subject to these waste analysis requirements.) The plan must be kept on site in the generator's records, and the following requirements must be met:

- A) The waste analysis plan must be based on a detailed chemical and physical analysis of a representative sample of the prohibited wastes being treated, and contain all information necessary to treat the wastes in accordance with the requirements of this Part, including the selected testing frequency;
  - B) Such plan must be kept in the facility's on-site files and made available to inspectors; and
  - C) Wastes shipped off-site under this subsection (a)(5) must comply with the notification requirements of subsection (a)(3).
- 6) If a generator determines that the waste or contaminated soil is restricted based solely on its knowledge of the waste, all supporting data used to make this determination must be retained on-site in the generator's files. If a generator determines that the waste is restricted based on testing this waste or an extract developed using Method 1311 (Toxicity Characteristic Leaching Procedure) in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA publication number EPA-530/SW-846, all waste analysis data must be retained on-site in the generator's files.
- 7) If a generator determines that it is managing a prohibited waste that is excluded from the definition of hazardous or solid waste or that is exempt from Subtitle C regulation under 35 Ill. Adm. Code 721.102 through 721.106 subsequent to the point of generation (including deactivated characteristic hazardous wastes that are managed in wastewater treatment systems subject to the CWA, as specified at 35 Ill. Adm. Code 721.104(a)(2); that are CWA-equivalent; or that are managed in an underground injection well regulated under 35 Ill. Adm. Code 730), the generator must place a one-time notice stating such generation, subsequent exclusion from the definition of hazardous or solid waste or exemption from RCRA Subtitle C regulation, and the disposition of the waste in the generating facility's on-site file.
- 8) A generator must retain a copy of all notices, certifications, waste analysis data, and other documentation produced under this Section on-site for at least three years from 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-year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested in writing by the Agency. The

requirements of this subsection (a)(8) apply to solid wastes even when the hazardous characteristic is removed prior to disposal, or when the waste is excluded from the definition of hazardous or solid waste under 35 Ill. Adm. Code 721.102 through 721.106, or exempted from RCRA Subtitle C regulation, subsequent to the point of generation.

BOARD NOTE: Any Agency request for extended records retention under this subsection (a)(8) is subject to Board review under Section 40 of the Act.

- 9) If a generator is managing a lab pack containing hazardous wastes and wishes to use the alternative treatment standard for lab packs found at Section 728.142(c), the generator must fulfill the following conditions:
  - A) With the initial shipment of waste to a treatment facility, the generator must submit a notice that provides the information in column "Section 728.107(a)(9)" in the Generator Paperwork Requirements Table of Table I and the following certification. The certification, which must be signed by an authorized representative and must be placed in the generator's files, must say the following:

I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only wastes that have not been excluded under Appendix D to 35 Ill. Adm. Code 728 and that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at 35 Ill. Adm. Code 728.142(c). I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.
  - B) No further notification is necessary until such time as the wastes in the lab pack change, or the receiving facility changes, in which case a new notice and certification must be sent and a copy placed in the generator's file.
  - C) If the lab pack contains characteristic hazardous wastes (D001-D043), underlying hazardous constituents (as defined in Section 728.102(i)) need not be determined.
  - D) The generator must also comply with the requirements in subsections (a)(6) and (a)(7).
- 10) An SQG with tolling agreements under 35 Ill. Adm. Code 722.120(e) must comply with the applicable notification and certification requirements of subsection (a) for the initial shipment of the waste subject to the agreement. Such generators must 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 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 in writing by the Agency.

BOARD NOTE: Any Agency request for extended records retention under this subsection (a)(10) is subject to Board review under Section 40 of the Act.

- b) The owner or operator of a treatment facility must test its wastes according to the frequency specified in its waste analysis plan, as required by 35 Ill. Adm. Code 724.113 (for permitted TSDs) or 725.113 (for interim status facilities). Such testing must be performed as provided in subsections (b)(1), (b)(2), and (b)(3).
  - 1) For wastes or contaminated soil with treatment standards expressed in the waste extract (TCLP), the owner or operator of the treatment facility must test an extract of the treatment residues using Method 1311 (Toxicity Characteristic Leaching Procedure) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, to assure that the treatment residues extract meets the applicable treatment standards.
  - 2) For wastes or contaminated soil with treatment standards expressed as concentrations in the waste, the owner or operator of the treatment facility must test the treatment residues (not an extract of such residues) to assure that the treatment residues meet the applicable treatment standards.
  - 3) A one-time notice must be sent with the initial shipment of waste or contaminated soil to the land disposal facility. A copy of the notice must be placed in the treatment facility’s file.
    - A) No further notification is necessary until such time that the waste or receiving facility changes, in which case a new notice must be sent and a copy placed in the treatment facility’s file.
    - B) The one-time notice must include the following requirements:
      - i) USEPA hazardous waste number and manifest number of first shipment;
      - ii) The waste is subject to the LDRs. The constituents of concern for F001 through F005 and F039 waste and underlying hazardous constituents in characteristic wastes, unless the waste will be treated and monitored for all constituents. If all constituents will be treated and monitored, there is no need to put them all on the LDR notice;

- iii) The notice must include the applicable wastewater/nonwastewater category (see Section 728.102(d) and (f)) and subdivisions made within a USEPA hazardous waste numbers based on waste-specific criteria (such as D003 reactive cyanide);
  - iv) Waste analysis data (when available);
  - v) For contaminated soil subject to LDRs as provided in Section 728.149(a), the constituents subject to treatment as described in Section 728.149(d) and the following statement, “this contaminated soil (does/does not) contain listed hazardous waste and (does/does not) exhibit a characteristic of hazardous waste and (is subject to/complies with) the soil treatment standards as provided by Section 728.149(c)”;
  - vi) A certification is needed (see applicable Section for exact wording).
- 4) The owner or operator of a treatment facility must submit a certification signed by an authorized representative with the initial shipment of waste or treatment residue of a restricted waste to the land disposal facility. The certification must state as follows:

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 35 Ill. Adm. Code 728.140 without impermissible dilution of the prohibited waste. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

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

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and believe that it has been maintained and operated properly so as to comply with treatment standards specified in 35 Ill. Adm. Code 728.149 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 must be placed in the treatment facility's on-site files. If the waste or treatment residue changes, or the receiving facility changes, a new certification must be sent to the receiving facility, and a copy placed in the treatment facility's file.
- B) Debris excluded from the definition of hazardous waste under 35 Ill. Adm. Code 721.103(f) (i.e., debris treated by an extraction or destruction technology listed in Table F and debris that the Agency has determined does not contain hazardous waste) is subject to the notification and certification requirements of subsection (d) rather than the certification requirements of this subsection (b)(4).
- C) For wastes with organic constituents having treatment standards expressed as concentration levels, if compliance with the treatment standards is based in part or in whole on the analytical detection limit alternative specified in Section 728.140(d), the certification must be signed by an authorized representative and must state as follows:

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 Table C to 35 Ill. Adm. Code 728. 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 Section 728.140 and Table T (other than those expressed as a required method of treatment) or Section 728.149 and that contain underlying hazardous constituents, as defined in Section 728.102(i); if these wastes are treated on-site to remove the hazardous characteristic; and that are then sent off-site for treatment of underlying hazardous constituents, the certification must state as follows:

I certify under penalty of law that the waste has been treated in accordance with the requirements of 35 Ill. Adm. Code 728.140 and Table T of Section 728.149 of that Part 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 Section 728.102(i), that are treated on-site to remove the hazardous characteristic and to treat underlying hazardous constituents to levels in Section 728.148 and Table U universal treatment standards, the certification must state as follows:

I certify under penalty of law that the waste has been treated in accordance with the requirements of 35 Ill. Adm. Code 728.140 and Table T of that Part to remove the hazardous characteristic and that underlying hazardous constituents, as defined in 35 Ill. Adm. Code 728.102(i), have been treated on-site to meet the universal treatment standards of 35 Ill. Adm. Code 728.148 and Table U of that Part. 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 that sends the waste or treatment residue off-site must comply with the notice and certification requirements applicable to generators under this Section.
- 6) If the wastes are recyclable materials used in a manner constituting disposal subject to the provisions of 35 Ill. Adm. Code 726.120(b), regarding treatment standards and prohibition levels, the owner or operator of a treatment facility (i.e., the recycler) must, for the initial shipment of waste, prepare a one-time certification described in subsection (b)(4) and a notice that includes the information listed in subsection (b)(3) (except the manifest number). The certification and notification must be placed in the facility's on-site files. If the waste or the receiving facility changes, a new certification and notification must be prepared and placed in the on-site files. In addition, the owner or operator of the recycling facility also must keep records of the name and location of each entity receiving the hazardous waste-derived product.
- c) Except if the owner or operator is disposing of any waste that is a recyclable material used in a manner constituting disposal under 35 Ill. Adm. Code 726.120(b), the owner or operator of any land disposal facility disposing any waste subject to restrictions under this Part must do the following:

- 1) Maintain in its files copies of the notice and certifications specified in subsection (a) or (b).
  - 2) Test the waste or an extract of the waste or treatment residue developed using Method 1311 (Toxicity Characteristic Leaching Procedure in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846) to assure that the waste or treatment residue is in compliance with the applicable treatment standards set forth in Subpart D. Such testing must be performed according to the frequency specified in the facility’s waste analysis plan as required by 35 Ill. Adm. Code 724.113 or 35 Ill. Adm. Code 725.113.
  - 3) If the owner or operator is disposing of any waste that is subject to the prohibitions under Section 728.133(f) but not subject to the prohibitions set forth in Section 728.132, the owner or operator must ensure that such waste is the subject of a certification according to the requirements of Section 728.108 prior to disposal in a landfill or surface impoundment unit, and that such disposal is in accordance with the requirements of Section 728.105(h)(2). The same requirement applies to any waste that is subject to the prohibitions under Section 728.133(f) and also is subject to the statutory prohibitions in the codified prohibitions in Section 728.139 or Section 728.132.
  - 4) If the owner or operator is disposing of any waste that is a recyclable material used in a manner constituting disposal subject to the provisions of 35 Ill. Adm. Code 726.120(b), the owner or operator is not subject to subsections (c)(1) through (c)(3) with respect to such waste.
- d) A generator or treater that first claims that hazardous debris is excluded from the definition of hazardous waste under 35 Ill. Adm. Code 721.103(f) (i.e., debris treated by an extraction or destruction technology provided by Table F, and debris that has been delisted) is subject to the following notification and certification requirements:
- 1) A one-time notification must be submitted to the Agency including the following information:
    - A) The name and address of the RCRA Subtitle D (municipal solid waste landfill) facility receiving the treated debris;
    - B) A description of the hazardous debris as initially generated, including the applicable USEPA hazardous waste numbers; and
    - C) For debris excluded under 35 Ill. Adm. Code 721.103(f)(1), the technology from Table F used to treat the debris.
  - 2) The notification must be updated if the debris is shipped to a different facility and, for debris excluded under 35 Ill. Adm. Code 721.103(f)(1), if



a different type of debris is treated or if a different technology is used to treat the debris.

- 3) For debris excluded under 35 Ill. Adm. Code 721.103(f)(1), the owner or operator of the treatment facility must document and certify compliance with the treatment standards of Table F, as follows:
  - A) Records must be kept of all inspections, evaluations, and analyses of treated debris that are made to determine compliance with the treatment standards;
  - B) Records must be kept of any data or information the treater obtains during treatment of the debris that identifies key operating parameters of the treatment unit; and
  - C) For each shipment of treated debris, a certification of compliance with the treatment standards must be signed by an authorized representative and placed in the facility's files. The certification must state as follows:

I certify under penalty of law that the debris has been treated in accordance with the requirements of 35 Ill. Adm. Code 728.145. I am aware that there are significant penalties for making a false certification, including the possibility of fine and imprisonment.

- e) A generator or treater that first receives a determination from USEPA or the Agency that a given contaminated soil subject to LDRs, as provided in Section 728.149(a), no longer contains a listed hazardous waste and a generator or treater that first determines that a contaminated soil subject to LDRs, as provided in Section 728.149(a), no longer exhibits a characteristic of hazardous waste must do the following:
  - 1) Prepare a one-time only documentation of these determinations including all supporting information; and
  - 2) Maintain that information in the facility files and other records for a minimum of three years.

(Source: Amended at 44 Ill. Reg. 15495, effective September 3, 2020)

### **Section 728.108 Landfill and Surface Impoundment Disposal Restrictions (Repealed)**

(Source: Repealed at 15 Ill. Reg. 9462, effective June 17, 1991)

## Section 728.109 Special Rules for Characteristic Wastes

- a) The initial generator of a solid waste must determine each USEPA hazardous waste number applicable to the waste in order to determine the applicable treatment standards under Subpart D. This determination may be made concurrently with the hazardous waste determination required in Section 722.111. For purposes of this Part, the waste must carry the USEPA hazardous waste number for any applicable listing under Subpart D of 35 Ill. Adm. Code 721. In addition, the waste must carry one or more of the USEPA hazardous waste numbers under Subpart C of 35 Ill. Adm. Code 721 where the waste exhibits a characteristic, except in the case when the treatment standard for the listed waste operates in lieu of the treatment standard for the characteristic waste, as specified in subsection (b). If the generator determines that its waste displays a characteristic of hazardous waste (and the waste is not D001 nonwastewaters treated by CMBST, RORGS, or POLYM of Table C), the generator must determine the underlying hazardous constituents (as defined at Section 728.102(i)) in the characteristic waste.
- b) Where a prohibited waste is both listed under Subpart D of 35 Ill. Adm. Code 721 and exhibits a characteristic of hazardous waste under Subpart C of 35 Ill. Adm. Code 721, the treatment standard for the USEPA hazardous waste number listed in Subpart D of 35 Ill. Adm. Code 721 will operate in lieu of the standard for the USEPA hazardous waste number under Subpart C of 35 Ill. Adm. Code 721, provided that the treatment standard for the listed waste includes a treatment standard for the constituent that causes the waste to exhibit the characteristic. Otherwise, the waste must meet the treatment standards for all applicable listed and characteristic USEPA hazardous waste numbers.
- c) In addition to any applicable standards determined from the initial point of generation, no prohibited waste that exhibits a characteristic under Subpart C of 35 Ill. Adm. Code 721 must be land disposed, unless the waste complies with the treatment standards under Subpart D.
- d) A waste that exhibits a characteristic of hazardous waste under Subpart C of 35 Ill. Adm. Code 721 is also subject to Section 728.107 requirements, except that once the waste is no longer hazardous, a one-time notification and certification must be placed in the generator's or treater's on-site files. The notification and certification that is placed in the generator's or treater's files must be updated if the process or operation generating the waste changes or if the RCRA Subtitle D (municipal solid waste landfill) facility receiving the waste changes.
  - 1) The notification must include the following information:
    - A) The name and address of the RCRA Subtitle D (municipal solid waste landfill) facility receiving the waste shipment; and

- B) A description of the waste as initially generated, including the applicable USEPA hazardous waste numbers, the treatability groups, and the underlying hazardous constituents (as defined in Section 728.102(i)), 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 must be signed by an authorized representative and must state the language found in Section 728.107(b)(4). If treatment removes the characteristic but does not meet standards applicable to underlying hazardous constituents, then the certification found in Section 728.107(b)(4)(D) applies.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

#### SUBPART B: SCHEDULE FOR LAND DISPOSAL PROHIBITION AND ESTABLISHMENT OF TREATMENT STANDARDS

##### **Section 728.110 First Third (Repealed)**

(Source: Repealed at 22 Ill. Reg. 783, effective December 16, 1997)

##### **Section 728.111 Second Third (Repealed)**

(Source: Repealed at 22 Ill. Reg. 783, effective December 16, 1997)

##### **Section 728.112 Third Third (Repealed)**

(Source: Repealed at 22 Ill. Reg. 783, effective December 16, 1997)

##### **Section 728.113 Newly Listed Wastes**

In corresponding 40 CFR 268.13, USEPA stated that it would make a land disposal prohibition determination for any hazardous waste identified or listed after November 8, 1984 within six months after the date of identification or listing. This statement maintains structural consistency with the corresponding federal regulations.

(Source: Amended at 27 Ill. Reg. 13045, effective July 17, 2003)

## **Section 728.114 Surface Impoundment Exemptions**

- a) This Section defines additional circumstances under which an otherwise prohibited waste may continue to be placed in a surface impoundment.
- b) Wastes that are newly identified or listed by USEPA pursuant to Section 3001 of RCRA (42 USC 6921) after November 8, 1984 and which are stored in a surface impoundment that is newly subject to subtitle C of RCRA (42 USC 6921 et seq.) as a result of the additional identification or listing may continue to be stored in the surface impoundment for 48 months after the promulgation of the additional listing or characteristic, notwithstanding the fact that the waste is otherwise prohibited from land disposal, provided that the surface impoundment is in compliance with the requirements of Subpart F of 35 Ill. Adm. Code 725 within 12 months after promulgation of the new listing or characteristic.
- c) Wastes that are newly identified or listed by USEPA under Section 3001 of RCRA (42 USC 6921) after November 8, 1984 and which are treated in a surface impoundment that is newly subject to Subtitle C of RCRA (42 USC 6921 et seq.) as a result of the additional identification or listing may continue to be treated in that surface impoundment, notwithstanding the fact that the waste is otherwise prohibited from land disposal, provided that the surface impoundment is in compliance with the requirements of Subpart F of 35 Ill. Adm. Code 725 within 12 months after the promulgation of the new listing or characteristic. In addition, if the surface impoundment continues to treat hazardous waste after 48 months from promulgation of the additional listing or characteristic, it must then be in compliance with Section 728.104.

(Source: Amended at 30 Ill. Reg. 3800, effective February 23, 2006)

### **SUBPART C: PROHIBITION ON LAND DISPOSAL**

## **Section 728.120 Waste-Specific Prohibitions: Dyes and Pigments Production Wastes**

- a) The waste specified in 35 Ill. Adm. Code 721.132 as USEPA hazardous waste number K181, 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 subsection (a) do not apply if any of the following conditions are fulfilled:
  - 1) The wastes meet the applicable treatment standards specified in Subpart D;
  - 2) A no-migration exemption has been granted from a prohibition pursuant to a petition under Section 728.106, in which case the requirements of subsection (a) do not apply 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 Section 728.144;
  - 4) Hazardous debris has met the treatment standards in Section 728.140 or the alternative treatment standards in Section 728.145; or
  - 5) USEPA has granted an extension to the effective date of a prohibition pursuant to 40 CFR 268.5, in which case the requirements of subsection (a) do not apply with respect to these wastes covered by the extension.
- c) To determine whether a hazardous waste identified in this Section exceeds the applicable treatment standards specified in Section 728.140, 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 set forth in Subpart D, the waste is prohibited from land disposal, and all requirements of this Part apply, except as otherwise specified.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

### **Section 728.130 Waste-Specific Prohibitions: Wood Preserving Wastes**

- a) The following wastes are prohibited from land disposal: the wastes specified in 35 Ill. Adm. Code 721 as USEPA hazardous waste numbers F032, F034, and F035.
- b) The following wastes are prohibited from land disposal: soil and debris contaminated with the wastes specified in 35 Ill. Adm. Code 721 as F032, F034, F035; and radioactive wastes mixed with USEPA hazardous waste numbers F032, F034, and F035.
- c) This subsection (c) corresponds with 40 CFR 268.30(c), which expired by its own terms on May 12, 1999. This statement maintains structural consistency with the corresponding federal regulations.
- d) The requirements of subsections (a) and (b) do not apply if any of the following conditions is fulfilled:
  - 1) The wastes meet the applicable treatment standards specified in Subpart D;
  - 2) A person has been granted an exemption from a prohibition pursuant to a petition under Section 728.106, 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 Section 728.144; or

- 4) A person has been granted an extension to the effective date of a prohibition by USEPA pursuant to federal 40 CFR 268.5 (see Section 728.105), with respect to those wastes covered by the extension.
- e) To determine whether a hazardous waste identified in this Section exceeds the applicable treatment standards specified in Section 728.140 and Table T, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable universal treatment standard levels of Section 728.148 and Table U, the waste is prohibited from land disposal and all requirements of Part 728 are applicable, except as otherwise specified.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

### **Section 728.131 Waste-Specific Prohibitions: Dioxin-Containing Wastes**

- a) The dioxin-containing wastes specified in 35 Ill. Adm. Code 721.131 as USEPA Hazardous Waste Numbers F020, F021, F022, F023, F026, F027, and F028 are prohibited from land disposal, unless the following condition applies: the dioxin-containing waste is contaminated soil and debris resulting from a CERCLA response or a RCRA corrective action.
- b) USEPA Hazardous Waste Numbers F020, F021, F022, F023, F026, F027, and F028, and dioxin-containing waste that is contaminated soil and debris resulting from a CERCLA response or a RCRA corrective action listed in subsection (a) are prohibited from land disposal.
- c) This subsection (c) corresponds with 40 CFR 268.31(c), which expired by its own terms on November 8, 1990. This statement maintains structural consistency with the corresponding federal regulations.
- d) The requirements of subsections (a) and (b) do not apply if any of the following conditions is fulfilled:
  - 1) The wastes meet the standards of Subpart D; or
  - 2) A person has been granted an exemption from a prohibition pursuant to a petition under Section 728.106, with respect to those wastes and units covered by the petition; or
  - 3) A person has been granted an extension from the effective date of a prohibition pursuant to Section 728.105, with respect to those wastes and units covered by the extension.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

**Section 728.132 Waste-Specific Prohibitions: Soils Exhibiting the Toxicity 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 (USEPA hazardous waste numbers D004 through D011) and containing PCBs.
- b) The requirements of subsection (a) do not apply if any of the following conditions is fulfilled:
  - 1) Low-Halogenated Organics Waste Meeting the Treatment Standards of Subpart D
    - A) The wastes contain halogenated organic compounds in total concentration less than 1,000 mg/kg; and
    - B) The wastes meet the treatment standards specified in Subpart D for USEPA hazardous waste numbers D004 through D011, as applicable; or
  - 2) Low-Halogenated Organics Waste Meeting Alternative Treatment Standards for Contaminated Soil
    - A) The wastes contain halogenated organic compounds in total concentration less than 1,000 mg/kg; and
    - B) The wastes meet the alternative treatment standards specified in Section 728.149 for contaminated soil; or
  - 3) A person has been granted an exemption from a prohibition pursuant to a petition under Section 728.106, 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 Section 728.144.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

**Section 728.133 Waste-Specific Prohibitions: Chlorinated Aliphatic Wastes**

- a) The wastes specified in 35 Ill. Adm. Code 721 as USEPA 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 subsection (a) do not apply if any of the following conditions is fulfilled:

- 1) The wastes meet the applicable treatment standards specified in Subpart D;
  - 2) A person has been granted an exemption from a prohibition pursuant to a petition under Section 728.106, 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 Section 728.144;
  - 4) Hazardous debris has met the treatment standards in Section 728.140 or the alternative treatment standards in Section 728.145; or
  - 5) A person has been granted an extension to the effective date of a prohibition pursuant to Section 728.105, with respect to those wastes covered by the extension.
- c) To determine whether a hazardous waste identified in this Section exceeds the applicable treatment standards specified in Section 728.140, 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 Subpart D, the waste is prohibited from land disposal, and all requirements of this Part 728 are applicable, except as otherwise specified.
- d) Disposal of USEPA hazardous waste number K175 wastes that have complied with all applicable Section 728.140 treatment standards must also be macroencapsulated in accordance with Table F, unless the waste is placed in one of the following:
- 1) A RCRA Subtitle C monofill containing only K175 wastes that meet all applicable Section 728.140 treatment standards; or
  - 2) A dedicated RCRA Subtitle C landfill cell in which all other wastes being co-disposed are at  $\text{pH} \leq 6.0$ .

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

#### **Section 728.134 Waste-Specific Prohibitions: Toxicity Characteristic Metal Wastes**

- a) The following wastes are prohibited from land disposal: the wastes specified in 35 Ill. Adm. Code 721 as USEPA hazardous waste numbers D004 through 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 at 35 Ill. Adm. Code 721.



- b) The following waste is prohibited from land disposal: slag from secondary lead smelting that exhibits the characteristic of toxicity 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 USEPA hazardous waste numbers D004 through D011 wastes 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) This subsection (d) corresponds with 40 CFR 269.34(d), which expired by its own terms on May 26, 2000. This statement maintains structural consistency with the corresponding federal regulations.
- e) The requirements of subsections (a) and (b) do not apply if any of the following applies to the waste:
  - 1) The wastes meet the applicable treatment standards specified in Subpart D;
  - 2) The Board has granted an exemption from a prohibition pursuant to a petition under Section 728.106, 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 Section 728.144; or
  - 4) USEPA has granted an extension to the effective date of a prohibition pursuant to federal 40 CFR 268.5, with respect to those wastes covered by the extension.
- f) To determine whether a hazardous waste identified in this Section exceeds the applicable treatment standards specified in Section 728.140 and Table T, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents (including underlying hazardous constituents in characteristic wastes) in excess of the applicable universal treatment standard levels of Section 728.148 and Table U, the waste is prohibited from land disposal, and all requirements of this Part are applicable, except as otherwise specified.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

### **Section 728.135 Waste-Specific Prohibitions: Petroleum Refining Wastes**

- a) The wastes specified in 35 Ill. Adm. Code 721.132 as USEPA hazardous waste numbers K169, K170, K171, and K172; soils and debris contaminated with these wastes; radioactive wastes mixed with these hazardous wastes; and soils and debris contaminated with these radioactive mixed wastes are prohibited from land disposal.
- b) The requirements of subsection (a) do not apply if any of the following applies to the waste:
  - 1) The wastes meet the applicable treatment standards specified in Subpart D;
  - 2) The Board has granted an adjusted standard that exempts waste from a prohibition pursuant to Section 728.106, with respect to those wastes and units covered by the adjusted standard;
  - 3) The wastes meet an adjusted standard from an applicable treatment standard granted under Section 728.144;
  - 4) The waste is hazardous debris that has met the treatment standards set forth in Section 728.140 and Table T or the alternative treatment standards in Section 728.145; or
  - 5) USEPA has granted an extension to the effective date of a prohibition pursuant to federal 40 CFR 268.5, with respect to these wastes covered by the extension.
- c) To determine whether a hazardous waste identified in this Section exceeds the applicable treatment standards specified in Section 728.140, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable universal treatment standard levels of Section 728.148 and Table U, the waste is prohibited from land disposal, and all requirements of this Part are applicable, except as otherwise specified.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

### **Section 728.136 Waste-Specific Prohibitions: Inorganic Chemical Wastes**

- a) The wastes specified in 35 Ill. Adm. Code 721 as USEPA 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 subsection (a) do not apply if any of the following applies to the waste:
- 1) The wastes meet the applicable treatment standards specified in Subpart D;
  - 2) A person has been granted an exemption from a prohibition pursuant to a petition under Section 728.106, 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 Section 728.144;
  - 4) Hazardous debris has met the treatment standards in Section 728.140 and Table T or the alternative treatment standards in Section 728.145; or
  - 5) A person has been granted an extension to the effective date of a prohibition pursuant to Section 728.105, with respect to these wastes covered by the extension.
- c) To determine whether a hazardous waste identified in this Section exceeds the applicable treatment standards specified in Section 728.140 and Table T, 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 Subpart D, the waste is prohibited from land disposal, and all requirements of this part are applicable, except as otherwise specified.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

**Section 728.137 Waste-Specific Prohibitions: Ignitable and Corrosive Characteristic Wastes Whose Treatment Standards Were Vacated**

- a) The wastes specified in 35 Ill. Adm. Code 721.121 as D001 (and is not in the High TOC Ignitable Liquids Subcategory), and specified in 35 Ill. Adm. Code 721.122 as D002, that are managed in systems other than those whose discharge is regulated under the Clean Water Act (CWA), or that inject in Class I deep wells regulated under the Safe Drinking Water Act (SDWA), or that are zero dischargers that engage in 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 35 Ill. Adm. Code 721.121 as D001 (and is not in the High TOC Ignitable Liquids Subcategory), and specified in 35 Ill. Adm. Code 721.122 as

D002, that are managed in systems defined in 35 Ill. Adm. Code 704 and 730 as Class V injection wells, that do not engage in CWA-equivalent treatment before injection, are prohibited from land disposal.

(Source: Amended at 27 Ill. Reg. 13045, effective July 17, 2003)

**Section 728.138 Waste-Specific Prohibitions: Newly-Identified Organic Toxicity Characteristic Wastes and Newly-Listed Coke By-Product and Chlorotoluene Production Wastes**

- a) The wastes specified in 35 Ill. Adm. Code 721.132 as USEPA hazardous waste numbers K141, K142, K143, K144, K145, K147, K148, K149, K150, and K151 are prohibited from land disposal. In addition, debris contaminated with USEPA hazardous waste numbers F037, F038, K107 through K112, K117, K118, K123 through K126, K131, K132, K136, U328, U353, U359 and soil and debris contaminated with D012 through D043, K141 through K145, and K147 through K151 are prohibited from land disposal. The following wastes that are specified in the table at 35 Ill. Adm. Code 721.124(b) as USEPA hazardous waste numbers D012, D013, D014, D015, D016, D017, D018, D019, D020, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D031, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043 that are not radioactive, that are managed in systems other than those whose discharge is regulated under the federal Clean Water Act (CWA; 33 U.S.C. 1251 et seq.), 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 Act (SDWA) are prohibited from land disposal. "CWA-equivalent treatment", as used in this Section, means biological treatment for organics, alkaline chlorination or ferrous sulfate precipitation for cyanide, precipitation and sedimentation for metals, reduction for hexavalent chromium, or another treatment technology that can be demonstrated to perform equally to or better than these technologies.
- b) Radioactive wastes that are mixed with any of USEPA hazardous waste numbers D018 through D043 waste that are managed in systems other than those whose discharge is regulated under the Clean Water Act (CWA), in systems that inject in Class I deep wells regulated under the Safe Drinking Water Act (SDWA), or in systems that are zero dischargers that engage in CWA-equivalent treatment, as defined in subsection (a), before ultimate land disposal are prohibited from land disposal. Radioactive wastes mixed with any of USEPA hazardous waste numbers K141 through K145 and K147 through K151 are also prohibited from land disposal. In addition, soil and debris contaminated with these radioactive mixed wastes are prohibited from land disposal.
- c) This subsection (c) corresponds with 40 CFR 268.38(c), which expired by its own terms on September 19, 1996. This statement maintains structural consistency with the corresponding federal regulations.

- d) The requirements of subsections (a), (b), and (c) do not apply if any of the following applies to the waste:
- 1) The wastes meet the applicable treatment standards specified in Subpart D;
  - 2) A person has been granted an exemption from a prohibition pursuant to a petition under Section 728.106, 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 Section 728.144;
  - 4) A person has been granted an extension to the effective date of a prohibition pursuant to Section 728.105, with respect to these wastes covered by the extension.
- e) To determine whether a hazardous waste identified in this Section exceeds the applicable treatment standards specified in Section 728.140 and Table T, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable levels of Subpart D, the waste is prohibited from land disposal and all requirements of this Part are applicable, except as otherwise specified.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

### **Section 728.139 Waste-Specific Prohibitions: Spent Aluminum Potliners and Carbamate Wastes**

- a) The wastes specified in 35 Ill. Adm. Code 721.132 as USEPA hazardous waste numbers K156-K159 and K161; and in 35 Ill. Adm. Code 721.133 as USEPA hazardous waste numbers P127, P128, P185, P188 through P192, P194, P196 through P199, P201 through P205, U271, U278 through U280, U364, U367, U372, U373, U387, U389, U394, U395, U404, and U409 through U411 are prohibited from land disposal. In addition, soil and debris contaminated with these wastes are prohibited from land disposal.
- b) The wastes identified in 35 Ill. Adm. Code 721.123 as USEPA hazardous waste number D003 are prohibited from land disposal, other than those that are managed in a system whose discharge is regulated under 35 Ill. Adm. Code: Subtitle C, one that injects hazardous waste in Class I waste injection well regulated under 35 Ill. Adm. Code 702, 704, and 730, or one that is a zero discharger that engages in federal Clean Water Act (CWA)-equivalent treatment before ultimate land disposal. This prohibition does not apply to unexploded ordnance and other explosive devices that have been the subject of an emergency response. (Such D003 wastes are prohibited unless they meet the treatment standard of DEACT before land disposal (see Section 728.140)).

- c) The wastes specified in 35 Ill. Adm. Code 721.132 as USEPA 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 waste designated by any of USEPA hazardous waste numbers K088, K156 through K159, K161, P127, P128, P185, P188 through P192, P194, P196 through P199, P201 through P205, U271, U278 through U280, U364, U367, U372, U373, U387, U389, U394, U395, U404, and U409 through U411 are prohibited from land disposal. In addition, soil and debris contaminated with these radioactive mixed wastes are prohibited from land disposal.
- e) This subsection corresponds with 40 CFR 268.39(e), which expired by its own terms after April 8, 1998. This statement maintains structural consistency with the corresponding federal regulations.
- f) The requirements of subsections (a), (b), (c), and (d) do not apply if any of the following applies to the waste:
  - 1) The wastes meet the applicable treatment standards specified in Subpart D;
  - 2) The person conducting the disposal has been granted an exemption from a prohibition under a petition pursuant to Section 728.106, with respect to those wastes and units covered by the petition;
  - 3) The wastes meet the applicable alternative treatment standards established pursuant to a petition granted under Section 728.144; or
  - 4) The person conducting the disposal has been granted an extension to the effective date of a prohibition pursuant to Section 728.105, with respect to those wastes covered by the extension.
- g) To determine whether a hazardous waste identified in this Section exceeds the applicable treatment standards set forth in Section 728.140, 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 in the waste, or the generator may use knowledge of the waste. If a waste contains constituents in excess of the applicable levels of Subpart D, the waste is prohibited from land disposal and all requirements of this Part are applicable to the waste, except as otherwise specified.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

## SUBPART D: TREATMENT STANDARDS

### Section 728.140 Applicability of Treatment Standards

- a) A prohibited waste identified in Table T, “Treatment Standards for Hazardous Wastes”, may be land disposed only if it meets the requirements found in that Table. For each waste, Table T identifies one of three types of treatment standard requirements:
  - 1) All hazardous constituents in the waste or in the treatment residue must be at or below the values found in Table T for that waste (total waste standards);
  - 2) The hazardous constituents in the extract of the waste or in the extract of the treatment residue must be at or below the values found in Table T (waste extract standards); or
  - 3) The waste must be treated using the technology specified in Table T (technology standard), which is described in detail in Table C, “Technology Codes and Description of Technology-Based Standards”.
- b) For wastewaters, compliance with concentration level standards is based on maximums for any one day, except for D004 through D011 wastes for which the previously promulgated treatment standards based on grab samples remain in effect. For all nonwastewaters, compliance with concentration level standards is based on grab sampling. For wastes covered by the waste extract standards, the test Method 1311 (Toxicity Characteristic Leaching Procedure) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a), must be used to measure compliance. An exception is made for D004 and D008, for which either of two test methods may be used: Method 1311 or Method 1310B (Extraction Procedure Toxicity Test) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846. For wastes covered by a technology standard, the wastes may be land disposed after being treated using that specified technology or an equivalent treatment technology approved by the Agency pursuant to Section 728.142(b).
- c) When wastes with differing treatment standards for a constituent of concern are combined for purposes of treatment, the treatment residue must meet the lowest treatment standard for the constituent of concern.
- d) Notwithstanding the prohibitions specified in subsection (a), treatment and disposal facilities may demonstrate (and certify pursuant to Section 728.107(b)(5)) compliance with the treatment standards for organic constituents specified by a footnote in Table T, provided 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 Subpart O of 35 Ill. Adm. Code 724, or based on combustion in fuel substitution units operating in accordance with applicable technical requirements;
  - 2) The treatment or disposal facility has used the methods referenced in subsection (d)(1) to treat the organic constituents; and
  - 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 the treatment standards specified in this Section and Table T by an order of magnitude.
- e) For a characteristic waste (USEPA hazardous waste number D001 through D043) that is subject to treatment standards set forth in Table T, "Treatment Standards for Hazardous Wastes", and the waste is not managed in a wastewater treatment system that is either regulated under the Clean Water Act (CWA) or one that is CWA-equivalent or the waste is injected into a Class I non-hazardous deep injection well, all underlying hazardous constituents (as defined in Section 728.102) must meet the universal treatment standards, set forth in Table U prior to land disposal, as defined in Section 728.102.
- f) The treatment standards for USEPA hazardous waste numbers F001 through F005 nonwastewater constituents carbon disulfide, cyclohexanone, or methanol apply to wastes that contain only one, two, or three of these constituents. Compliance is measured for these constituents in the waste extract from test Method 1311 (Toxicity Characteristic Leaching Procedure) in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a). If the waste contains any of these three constituents along with any of the other 25 constituents found in USEPA hazardous waste numbers F001 through F005, then compliance with treatment standards for carbon disulfide, cyclohexanone, or methanol are not required.
- g) This subsection (g) corresponds with 40 CFR 268.40(g), which expired by its own terms on March 4, 1999. This statement maintains structural consistency with the corresponding federal rules.
- h) Prohibited USEPA hazardous waste numbers D004 through D011, mixed radioactive wastes, and mixed radioactive listed wastes containing metal constituents that were previously treated by stabilization to the treatment standards in effect at that time and then put into storage do not have to be re-treated to meet treatment standards in this Section prior to land disposal.



- i) This subsection (i) corresponds with 40 CFR 268.40(i), which USEPA has removed and marked “reserved”. This statement maintains structural consistency with the corresponding federal regulations.
- j) The treatment standards for the wastes specified in 35 Ill. Adm. Code 721.133 as USEPA hazardous waste numbers P185, P191, P192, P197, U364, U394, and U395 may be satisfied by either meeting the constituent concentrations presented in Table T, “Treatment Standards for Hazardous Wastes”, or by treating the waste by the following technologies: combustion, as defined by the technology code CMBST at Table C, for nonwastewaters; biodegradation, as defined by the technology code BIODG; carbon adsorption, as defined by the technology code CARBN; chemical oxidation, as defined by the technology code CHOXD; or combustion, as defined as technology code CMBST at Table C, for wastewaters.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

### **Section 728.141 Treatment Standards Expressed as Concentrations in Waste Extract**

For the requirements previously found in this Section and for treatment standards in Table A, “Table CCWE-Constituent Concentrations in Waste Extracts”, refer to Section 728.140 and Table T, “Treatment Standards for Hazardous Wastes”.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

### **Section 728.142 Treatment Standards Expressed as Specified Technologies**

- a) The following wastes listed in Table T, “Treatment Standards for Hazardous Wastes”, for which standards are expressed as a treatment method rather than as a concentration level, must be treated using the technology or technologies specified in Table C.
  - 1) Liquid hazardous wastes containing PCBs at concentrations greater than or equal to 50 ppm but less than 500 ppm must be incinerated in accordance with the technical requirements of 40 CFR 761.70 (Incineration), incorporated by reference in 35 Ill. Adm. Code 720.111(b), or burned in high efficiency boilers in accordance with the technical requirements of 40 CFR 761.60 (Disposal Requirements), incorporated by reference in 35 Ill. Adm. Code 720.111(b). Liquid hazardous wastes containing PCBs at concentrations greater than or equal to 500 ppm must be incinerated in accordance with the technical requirements of 40 CFR 761.70. Thermal treatment in accordance with this Section must be in compliance with applicable regulations in 35 Ill. Adm. Code 724, 725, and 726.
  - 2) Nonliquid hazardous wastes containing halogenated organic compounds (HOCs) in total concentrations greater than or equal to 1,000 mg/kg and liquid HOC-containing wastes that are prohibited pursuant to Section 728.132(e)(1) must be incinerated in accordance with the requirements of

Subpart O of 35 Ill. Adm. Code 724 or Subpart O of 35 Ill. Adm. Code 725. These treatment standards do not apply where the waste is subject to a treatment standard codified in Subpart C for a specific HOC (such as a hazardous waste chlorinated solvent for which a treatment standard is established pursuant to Section 728.141(a)).

- 3) A mixture consisting of wastewater, the discharge of which is subject to regulation pursuant to 35 Ill. Adm. Code 309 or 310, and de minimis losses of materials from manufacturing operations in which these materials are used as raw materials or are produced as products in the manufacturing process that meet the criteria of the D001 ignitable liquids containing greater than 10 percent total organic constituents (TOC) subcategory are subject to the DEACT treatment standard described in Table C. For purposes of this subsection (a)(3), “de minimis losses” include the following:
  - A) Those from normal material handling operations (e.g., spills from the unloading or transfer of materials from bins or other containers, or leaks from pipes, valves, or other devices used to transfer materials);
  - B) Minor leaks from process equipment, storage tanks, or containers;
  - C) Leaks from well-maintained pump packings and seals;
  - D) Sample purgings; and
  - E) Relief device discharges.
- b) Any person may submit an application to the Agency demonstrating that an alternative treatment method can achieve a level of performance equivalent to that achievable by methods specified in subsections (a), (c), and (d) for wastes or specified in Table F for hazardous debris. The applicant must submit information demonstrating that the applicant’s treatment method is in compliance with federal and state requirements, including this Part; 35 Ill. Adm. Code 709, 724, 725, 726, and 729; and Sections 22.6 and 39(h) of the Environmental Protection Act and that the treatment method adequately protects human health and the environment. On the basis of such information and any other available information, the Agency must approve the use of the alternative treatment method if the Agency finds that the alternative treatment method provides a measure of performance equivalent to that achieved by methods specified in subsections (a), (c), and (d) and in Table F, for hazardous debris. Any approval must be stated in writing and may contain such provisions and conditions as the Agency determines to be appropriate. The person to whom such approval is issued must comply with all limitations contained in such determination.
- c) As an alternative to the otherwise applicable treatment standards of Subpart D, lab packs are eligible for land disposal provided the following requirements are met:

- 1) The lab packs comply with the applicable provisions of 35 Ill. Adm. Code 724.416 and 725.416;

BOARD NOTE: 35 Ill. Adm. Code 729.301 and 729.312 include additional restrictions on the use of lab packs.

- 2) The lab pack does not contain any of the wastes listed in Appendix D;
  - 3) The lab packs are incinerated in accordance with the requirements of Subpart O of 35 Ill. Adm. Code 724 or Subpart O of 35 Ill. Adm. Code 725; and
  - 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 Subpart D.
- d) Radioactive hazardous mixed wastes are subject to the treatment standards in Section 728.140 and Table T. Where treatment standards are specified for radioactive mixed wastes in Table T, “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 USEPA hazardous waste number) applies. Hazardous debris containing radioactive waste is subject to the treatment standards specified in Section 728.145.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

### **Section 728.143 Treatment Standards Expressed as Waste Concentrations**

For the requirements previously found in this Section and for treatment standards in Table A, “CCW-Constituent Concentrations in Wastes”, refer to Section 728.140 and Table T, “Treatment Standards for Hazardous Wastes”.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

### **Section 728.144 USEPA Variance from a Treatment Standard**

- a) Based on a petition filed by a generator or treater of hazardous waste, USEPA has stated that it may approve a variance from an applicable treatment standard if the petitioner can demonstrate that either of the following applies to treatment of the waste:
  - 1) It is not physically possible to treat the waste to the level specified in the treatment standard, or by the method specified as the treatment standard. To show that this is the case, the petitioner must demonstrate that because the physical or chemical properties of the waste differ significantly from waste analyzed in developing the treatment standard, the waste cannot be treated to the specified level or by the specified method; or

2) It is inappropriate to require the waste to be treated to the level specified in the treatment standard or by the method specified as the treatment standard, even though such treatment is technically possible. To show that this is the case, the petitioner must demonstrate that either of the following applies to treatment of the waste:

- A) Treatment to the specified level or by the specified method is technically inappropriate (for example, resulting in combustion of large amounts of mildly contaminated environmental media); or
- B) For remediation waste only, treatment to the specified level or by the specified method is environmentally inappropriate because it would likely discourage aggressive remediation.

BOARD NOTE: A variance from a treatment standard is available only from USEPA. USEPA has reserved to itself the authority to grant a variance from a treatment standard.

b) Each petition must be submitted in accordance with the procedures in 40 CFR 260.20.

c) Each petition must include the following statement signed by the petitioner or an authorized representative:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this petition and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that 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.

d) After receiving a petition for an adjusted treatment standard, USEPA has stated that it may request any additional information or samples that are necessary to evaluate the petition. Additional copies of the complete petition may be requested as needed to send to affected states and Regional Offices.

e) USEPA has stated that it will give public notice in the Federal Register of the intent to approve or deny a petition and provide an opportunity for public comment. USEPA has stated that the final decision on a variance from a treatment standard will be published in the Federal Register.

f) A generator, treatment facility or disposal facility that is managing a waste covered by an adjusted treatment standard must comply with the waste analysis requirements for restricted wastes found under Section 728.107.

- g) During the petition review process, the applicant is required to comply with all restrictions on land disposal under this Part once the effective date for the waste has been reached.
- h) Based on a petition filed by a generator or treater of hazardous waste, USEPA has stated that it may approve a site-specific variance from an applicable treatment standard if the petitioner can demonstrate that either of the following applies to treatment of the waste:
  - 1) It is not physically possible to treat the waste to the level specified in the treatment standard, or by the method specified as the treatment standard. To show that this is the case, the petitioner must demonstrate that because the physical or chemical properties of the waste differ significantly from waste analyzed in developing the treatment standard, the waste cannot be treated to the specified level or by the specified method; or
  - 2) It is inappropriate to require the waste to be treated to the level specified in the treatment standard or by the method specified as the treatment standard, even though such treatment is technically possible. To show that this is the case, the petitioner must demonstrate that either of the following applies to treatment of the waste:
    - A) Treatment to the specified level or by the specified method is technically inappropriate (for example, resulting in combustion of large amounts of mildly contaminated environmental media where the treatment standard is not based on combustion of such media); or
    - B) For remediation waste only, treatment to the specified level or by the specified method is environmentally inappropriate because it would likely discourage aggressive remediation.
  - 3) For contaminated soil only, treatment to the level or by the method specified in the soil treatment standards would result in concentrations of hazardous constituents that are below (i.e., lower than) the concentrations necessary to minimize short- and long-term threats to human health and the environment. USEPA has stated that a treatment variance granted under 40 CFR 268.44(h)(3) will include the following features:
    - A) At a minimum, USEPA has stated that a treatment variance approved under 40 CFR 268.44(h)(3) will impose an alternative land disposal restriction treatment standard that will achieve the following, using a reasonable maximum exposure scenario:
      - i) For carcinogens, it will achieve constituent concentrations that result in the total excess risk to an individual exposed

over a lifetime, generally falling within a range from  $10^{-4}$  to  $10^{-6}$ ; and

- ii) For constituents with non-carcinogenic effects, it will achieve constituent concentrations that an individual could be exposed to on a daily basis without appreciable risk of deleterious effect during a lifetime.
- B) USEPA has stated that a treatment variance approved under 40 CFR 268.44(h)(3) will not consider post-land-disposal controls.
- 4) For contaminated soil only, treatment to the level or by the method specified in the soil treatment standards would result in concentrations of hazardous constituents that are below (i.e., lower than) natural background concentrations at the site where the contaminated soil will be land disposed.
  - 5) USEPA has stated that public notice and a reasonable opportunity for public comment must be provided before granting or denying a petition.
- i) Each petition for a site-specific variance from a treatment standard must include the information in 40 CFR 260.20(b)(1) through (b)(4).
  - j) After receiving an application for a site-specific variance from a treatment standard, USEPA may request any additional information or samples that USEPA determines are necessary to evaluate the petition.
  - k) A generator, treatment facility, or disposal facility that is managing a waste covered by a site-specific variance from a treatment standard must comply with the waste analysis requirements for restricted wastes in Section 728.107.
  - l) During the petition review process, the petitioner for a site-specific variance must comply with all restrictions on land disposal under this Part once the effective date for the waste has been reached.
  - m) For any variance from a treatment standard, the petitioner must also demonstrate that compliance with the requested variance is sufficient to minimize threats to human health and the environment posed by land disposal of the waste. In evaluating this demonstration, USEPA has stated that it will take into account whether the treatment variance should be granted if the subject waste is to be used in a manner constituting disposal pursuant to 40 CFR 266.20 through 266.23.
  - n) This subsection (n) corresponds with 40 CFR 268.44(n), marked “reserved” by USEPA. This statement maintains structural consistency with corresponding federal regulations.

- o) The facilities listed in Table H are excluded from the treatment standards under Section 728.143(a) and Table B, and are subject to the constituent concentrations listed in Table H.
- p) After USEPA grants a treatability exception by regulatory action pursuant to 40 CFR 268.44 and a person demonstrates that the treatability exception needs to be adopted as part of the Illinois RCRA program because the waste is generated or managed in Illinois, the Board will adopt the treatability exception by identical in substance rulemaking pursuant to Section 22.4(a) of the Environmental Protection Act.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

### **Section 728.145 Treatment Standards for Hazardous Debris**

- a) Treatment Standards. Hazardous debris must be treated prior to land disposal as follows, unless the Agency has determined, under 35 Ill. Adm. Code 721.103(f)(2), that the debris is no longer contaminated with hazardous waste or the debris is treated to the waste-specific treatment standard provided in this Subpart D for the waste contaminating the debris:
  - 1) General. Hazardous debris must be treated for each “contaminant subject to treatment”, defined by subsection (b), using the technology or technologies identified in Table F.
  - 2) Characteristic Debris. Hazardous debris that exhibits the characteristic of ignitability, corrosivity, or reactivity identified under 35 Ill. Adm. Code 721.121, 721.122, or 721.123, respectively, must be deactivated by treatment using one of the technologies identified in Table F.
  - 3) Mixtures of Debris Types. The treatment standards of Table F 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 subsection (b) must be treated for each contaminant using one or more treatment technologies identified in Table F. If an immobilization technology is used in a treatment train, it must be the last treatment technology used.
  - 5) Waste PCBs. Hazardous debris that is also a waste PCB under 40 CFR 761 (Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions), incorporated by reference in 35 Ill. Adm. Code 720.111(b), is subject to the requirements of either 40 CFR 761 or the requirements of this Section, whichever are more stringent.

- b) Contaminants Subject to Treatment. Hazardous debris must be treated for each “contaminant subject to treatment”. The contaminants subject to treatment must be determined as follows:
- 1) Toxicity Characteristic Debris. The contaminants subject to treatment for debris that exhibits the Toxicity Characteristic (TC) by 35 Ill. Adm. Code 721.124 are those EP constituents for which the debris exhibits the TC toxicity characteristic.
  - 2) Debris Contaminated with Listed Waste. The contaminants subject to treatment for debris that is contaminated with a prohibited listed hazardous waste are those constituents or wastes for which treatment standards are established for the waste under Section 728.140 and Table T.
  - 3) Cyanide Reactive Debris. Hazardous debris that is reactive because of cyanide must be treated for cyanide.
- c) Conditioned Exclusion of Treated Debris. Hazardous debris that has been treated using one of the specified extraction or destruction technologies in Table F and that does not exhibit a characteristic of hazardous waste identified under Subpart C of 35 Ill. Adm. Code 721 after treatment is not a hazardous waste and need not be managed in a subtitle C facility. Hazardous debris contaminated with a listed waste that is treated by an immobilization technology specified in Table F is a hazardous waste and must be managed in a RCRA Subtitle C treatment, storage, or disposal facility.
- d) Treatment Residuals
- 1) General Requirements. Except as provided by subsections (d)(2) and (d)(4):
    - 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 Subpart D 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 subsection (b), must be deactivated prior to land disposal and is not subject to the waste-specific treatment standards of Subpart D.
  - 3) Cyanide-Reactive Debris. Residue from the treatment of debris that is reactive because of cyanide must meet the standards for USEPA hazardous waste number D003 under Section 728.140 and Table T.



- 4) Ignitable Nonwastewater Residue. Ignitable nonwastewater residue containing equal to or greater than 10 percent total organic carbon is subject to the technology specified in the treatment standard for USEPA hazardous waste number D001: Ignitable Liquids.
- 5) Residue from Spalling. Layers of debris removed by spalling are hazardous debris that remains subject to the treatment standards of this Section.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

**Section 728.146 Alternative Treatment Standards Based on HTMR**

For the treatment standards previously found in Table G, as formerly referenced in this Section, refer to Section 728.140 and Table T, “Treatment Standards for Hazardous Wastes”.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

**Section 728.148 Universal Treatment Standards**

Table U, “Universal Treatment Standards (UTS)”, identifies the hazardous constituents, along with the nonwastewater and wastewater treatment standard levels, that are used to regulate most prohibited hazardous wastes with numerical limits. For determining compliance with treatment standards for underlying hazardous constituents, as defined in Section 728.102(i), these treatment standards may not be exceeded. Compliance with these treatment standards is measured by an analysis of grab samples, unless otherwise noted in Table U.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

**Section 728.149 Alternative LDR Treatment Standards for Contaminated Soil**

- a) Applicability. An owner or operator must comply with LDRs prior to placing soil that exhibits a characteristic of hazardous waste or which exhibited a characteristic of hazardous waste at the time it was generated into a land disposal unit. The following chart describes whether an owner or operator must comply with LDRs prior to placing soil contaminated by listed hazardous waste into a land disposal unit:

If the LDRs	And if the LDRs	And if	Then the owner or operator
Applied to the listed waste when it contaminated the soil*.	Apply to the listed waste now.	—	Must 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.	Must 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.	Needs not comply with LDRs.
Did not apply to the listed waste when it contaminated the soil*.	Do not apply to the listed waste now.	—	Needs not comply with LDRs.

\* For dates of LDR applicability, see Appendix G. 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 subsection (a) as needing to comply with LDRs must be treated according to the applicable treatment standards specified in subsection (c) or according to the universal treatment standards specified in Section 728.148 and Table U applicable to the contaminating listed hazardous waste or the applicable characteristic of hazardous waste if the soil is characteristic. The treatment standards specified in subsection (c) and the universal treatment standards may be modified through a treatment variance approved in accordance with Section 728.144.
- c) Treatment Standards for Contaminated Soils. Prior to land disposal, contaminated soil identified by subsection (a) as needing to comply with LDRs must be treated according to all the standards specified in this subsection (c) or according to the universal treatment standards specified in Section 728.148 and Table U.
  - 1) All Soils. Prior to land disposal, all constituents subject to treatment must be treated as follows:
    - A) For non-metals except carbon disulfide, cyclohexanone, and methanol, treatment must achieve 90 percent reduction in total constituent concentrations, except as provided by subsection (c)(1)(C).
    - B) For metals and carbon disulfide, cyclohexanone, and methanol, treatment must achieve 90 percent reduction in constituent concentrations as measured in leachate from the treated media (tested according to the TCLP) or 90 percent reduction in total constituent concentrations (when a metal removal treatment technology is used), except as provided by subsection (c)(1)(C).
    - C) When treatment of any constituent subject to treatment to a 90 percent reduction standard would result in a concentration less than

10 times the universal treatment standard for that constituent, treatment to achieve constituent concentrations less than 10 times the universal treatment standard is not required. The universal treatment standards are identified in Table U.

- 2) Soils That Exhibit the Characteristic of Ignitability, Corrosivity or Reactivity. In addition to the treatment required by subsection (c)(1), prior to land disposal, soils that exhibit the characteristic of ignitability, corrosivity, or reactivity must be treated to eliminate these characteristics.
- 3) Soils That Contain Nonanalyzable Constituents. In addition to the treatment requirements of subsections (c)(1) and (c)(2), 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 subsections (c)(1) and (c)(2); or
  - B) For soil that contains only nonanalyzable constituents, treatment by the methods specified in Section 728.142 for the waste contained in the soil.
- d) Constituents Subject to Treatment. When applying the soil treatment standards in subsection (c), constituents subject to treatment are any constituents listed in Table U, entitled "Universal Treatment Standards", that are reasonably expected to be present in any given volume of contaminated soil, except fluoride, selenium, sulfides, vanadium, zinc, and that are present at concentrations greater than ten times the universal treatment standard. PCBs are not constituents subject to treatment in any given volume of soil that exhibits the toxicity characteristic solely because of the presence of metals.
- e) Management of Treatment Residuals. Treatment residuals from treating contaminated soil identified by subsection (a) as needing to comply with LDRs must be managed as follows:
  - 1) Soil residuals are subject to the treatment standards of this Section;
  - 2) Non-soil residuals are subject to the following requirements:
    - A) For soils contaminated by listed hazardous waste, the RCRA Subtitle C standards 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.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

## SUBPART E: PROHIBITIONS ON STORAGE

### Section 728.150 Prohibitions on Storage of Restricted Wastes

- a) Except as provided in this Section, the storage of hazardous wastes restricted from land disposal under Subpart C is prohibited, unless the following conditions are met:
  - 1) A generator stores such wastes in tanks, containers, or containment buildings on-site solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal and the generator complies with the requirements in 35 Ill. Adm. Code 722.116 and 722.117 and 35 Ill. Adm. Code 724 and 725. (A generator that is in existence on the effective date of a regulation under this Part and that must store hazardous wastes for longer than 90 days due to the regulations under this Part becomes an owner or operator of a storage facility and must obtain a RCRA permit, as required by 35 Ill. Adm. Code 703. Such a facility may qualify for interim status upon compliance with the regulations governing interim status under 35 Ill. Adm. Code 703.153.)
  - 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 each of the following conditions are fulfilled:
    - A) Each container is clearly marked with the following to identify:
      - i) The words “Hazardous Waste”;
      - ii) The applicable USEPA hazardous waste numbers in Subparts C and D of 35 Ill. Adm. Code 721; or use a nationally recognized electronic system, such as bar coding, to identify the USEPA hazardous waste numbers;
      - iii) An indication of the hazards of the contents (examples include, but are not limited to, the applicable hazardous waste characteristics (i.e., ignitable, corrosive, reactive, toxic); hazard communication consistent with subpart E (Labeling) or subpart F (Placarding) of 49 CFR 172, incorporated by reference in 35 Ill. Adm. Code 720.111; a hazard statement or pictogram consistent with 29 CFR 1910.1200, incorporated by reference in 35 Ill. Adm. Code 720.111; or a chemical hazard label consistent with NFPA 704, incorporated by reference in 35 Ill. Adm. Code 720.111); and
      - iv) The date each period of accumulation begins.

- B) Each tank is clearly marked with a description of its contents, the quantity of each hazardous waste received and the date each period of accumulation begins, or such information is recorded and maintained in the operating record at the facility. Regardless of whether the tank itself is marked, the owner and operator must comply with the operating record requirements of 35 Ill. Adm. Code 724.173 or 725.173.
- 3) A transporter stores manifested shipments of such wastes at a transfer facility for 10 days or less.
- 4) A healthcare facility accumulates such wastes in containers on site solely for the purpose of accumulating the quantities of hazardous waste pharmaceuticals as necessary to facilitate proper recovery, treatment, or disposal, and the healthcare facility complies with the applicable requirements in 35 Ill. Adm. Code 726.602 and 726.603.
- 5) A reverse distributor accumulates such wastes in containers on site solely for the purpose of accumulating the quantities of hazardous waste pharmaceuticals as necessary to facilitate proper recovery, treatment, or disposal, and the reverse distributor complies with 35 Ill. Adm. Code 726.610.
- b) An owner or operator of a treatment, storage, or disposal facility may store such wastes for up to one year unless the Agency 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 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 granted by USEPA under 40 CFR 268.5, an approved Section 728.106 petition or a national capacity variance granted by USEPA under subpart C of 40 CFR 268), the prohibition in subsection (a) does not apply during the period of such exemption.
- e) The prohibition in subsection (a) does not apply to hazardous wastes that meet the treatment standards specified under Sections 728.141, 728.142, and 728.143 or the adjusted treatment standards specified under Section 728.144, or, if treatment standards have not been specified, the waste is in compliance with the applicable prohibitions specified in Section 728.132 or 728.139.
- f) Liquid hazardous wastes containing PCBs at concentrations greater than or equal to 50 ppm must be stored at a facility that meets the requirements of federal 40 CFR 761.65(b) (Storage for Disposal), incorporated by reference in 35 Ill. Adm. Code

720.111(b), and must be removed from storage and treated or disposed as required by the Part within one year of the date when such wastes are first placed into storage. The provisions of subsection (c) do not apply to such PCB wastes prohibited under Section 728.132.

- g) The prohibition and requirements in this Section do not apply to hazardous remediation wastes stored in a staging pile approved under 35 Ill. Adm. Code 724.654.

(Source: Amended at 44 Ill. Reg. 15495, effective September 3, 2020)

### **Section 728.Appendix A Toxicity Characteristic Leaching Procedure (TCLP) (Repealed)**

(Source: Repealed at 22 Ill. Reg. 17706, effective September 28, 1998)

### **Section 728.Appendix B Treatment Standards (As concentrations in the Treatment Residual Extract) (Repealed)**

(Source: Repealed at 22 Ill. Reg. 17706, effective September 28, 1998)

### **Section 728.APPENDIX C List of Halogenated Organic Compounds Regulated under Section 728.132**

In determining the concentration of halogenated organic compounds (HOCs) in a hazardous waste for purposes of the Section 728.132 land disposal prohibition, USEPA has defined the HOCs that must be included in a calculation as any compounds having a carbon-halogen bond that are listed in this Appendix (see Section 728.102). This Appendix C to Part 728 consists of the following compounds:

#### **I. Volatiles**

1. Bromodichloromethane (CAS No. 75-27-4)
2. Bromomethane (CAS No. 74-83-9)
3. Carbon Tetrachloride (tetrachloromethane) (CAS No. 56-23-5)
4. Chlorobenzene (CAS No. 108-90-7)
5. 2-Chloro-1,3-butadiene (CAS No. 126-99-8)
6. Chlorodibromomethane (CAS No. 124-48-1)
7. Chloroethane (CAS No. 75-00-3)
8. 2-Chloroethyl vinyl ether ((2-chloroethoxy)ethene) (CAS No. 110-75-8)
9. Chloroform (trichloromethane) (CAS No. 67-66-3)
10. Chloromethane (CAS No. 74-87-3)
11. 3-Chloropropene (3-chloroprop-1-ene) (CAS No. 107-05-1)
12. 1,2-Dibromo-3-chloropropane (CAS No. 96-12-8)
13. 1,2-Dibromoethane (CAS No. 106-93-4)

14. Dibromomethane (CAS No. 74-95-3)
15. Trans-1,4-Dichloro-2-butene ((2E)-1,4-dichloro-2-butene) (CAS No. 110-57-6)
16. Dichlorodifluoromethane (CAS No. 75-71-8)
17. 1,1-Dichloroethane (CAS No. 75-34-3)
18. 1,2-Dichloroethane (CAS No. 107-06-2)
19. 1,1-Dichloroethylene (1,1-dichloroethene) (CAS No. 75-35-4)
20. Trans-1,2-Dichloroethene ((1E)-1,2-dichloroethene) (CAS No. 156-60-5)
21. 1,2-Dichloropropane (CAS No. 78-87-5)
22. Trans-1,3-Dichloropropene ((1E)-1,3-dichloroprop-1-ene) (CAS No. 10061-02-6)
23. cis-1,3-Dichloropropene ((1Z)-1,3-dichloroprop-1-ene) (CAS No. 10061-01-5)
24. Iodomethane (CAS No. 74-88-4)
25. Methylene chloride (dichloromethane) (CAS No. 75-09-2)
26. 1,1,1,2-Tetrachloroethane (CAS No. 630-20-6)
27. 1,1,2,2-Tetrachloroethane (CAS No. 79-34-5)
28. Tetrachloroethene (CAS No. 127-18-4)
29. Tribromomethane (CAS No. 75-25-2)
30. 1,1,1-Trichloroethane (CAS No. 71-55-6)
31. 1,1,2-Trichloroethane (CAS No. 79-00-5)
32. Trichloroethene (CAS No. 79-01-6)
33. Trichloromonofluoromethane (trichlorofluoromethane) (CAS No. 75-69-4)
34. 1,2,3-trichloropropane (CAS No. 96-18-4)
35. Vinyl Chloride (chloroethene) (CAS No. 75-01-4)

## II. Semivolatiles

1. Bis(2-chloroethoxy)ethane (1,2-bis(2-chloroethoxy)ethane) (CAS No. 112-26-5)
2. Bis(2-chloroethyl) ether (1,1'-oxybis(2-chloroethane)) (CAS No. 111-44-4)
3. Bis(2-chloroisopropyl)ether (2,2'-oxybis(2-chloropropane)) (CAS No. 39638-32-9)
4. p-Chloroaniline (4-chlorobenzeneamine) (CAS No. 106-47-8)
5. Chlorobenzilate (ethyl 2,2-bis(4-chlorophenyl)-2-hydroxyacetate) (CAS No. 510-15-6)
6. p-Chloro-m-cresol (4-chloro-3-methylphenol) (CAS No. 59-50-7)
7. 2-Chloronaphthalene (CAS No. 91-58-7)
8. 2-Chlorophenol (CAS No. 95-57-8)
9. 3-Chloropropionitrile (3-chloropronanenitrile) (CAS No. 542-76-7)
10. m-Dichlorobenzene (1,3-dichlorobenzene) (CAS No. 541-73-1)
11. o-Dichlorobenzene (1,2-dichlorobenzene) (CAS No. 95-50-1)
12. p-Dichlorobenzene (1,4-dichlorobenzene) (CAS No. 106-46-7)
13. 3,3'-Dichlorobenzidine (4-(4-amino-3-chlorophenyl)-2-chloroaniline) (CAS No. 91-94-1)
14. 2,4-Dichlorophenol (CAS No. 120-83-2)
15. 2,6-Dichlorophenol (CAS No. 87-65-0)
16. Hexachlorobenzene (CAS No. 118-74-1)
17. Hexachlorobutadiene (hexachlorobuta-1,3-diene) (CAS No. 87-68-3)
18. Hexachlorocyclopentadiene (CAS No. 77-47-4)
19. Hexachloroethane (CAS No. 67-72-1)
20. Hexachlorophene (2,2'-methylenebis(3,4,6-trichlorophenol)) (CAS No. 70-30-4)

21. Hexachloropropene (CAS No. 1888-71-7)
22. 4,4'-Methylenebis(2-chloroaniline) (4-[(4-amino-3-chlorophenyl)methyl]-2-chloroaniline) (CAS No. 101-14-4)
23. Pentachlorobenzene (CAS No. 608-93-5)
24. Pentachloroethane (CAS No. 76-01-7)
25. Pentachloronitrobenzene (CAS No. 82-68-8)
26. Pentachlorophenol (CAS No. 87-86-5)
27. Pronamide (3,5-dichloro-N-(1,1-dimethylprop-2-ynyl)benzamide) (CAS No. 23950-58-5)
28. 1,2,4,5-Tetrachlorobenzene (CAS No. 95-94-3)
29. 2,3,4,6-Tetrachlorophenol (CAS No. 58-90-2)
30. 1,2,4-Trichlorobenzene (CAS No. 120-82-1)
31. 2,4,5-Trichlorophenol (CAS No. 95-95-4)
32. 2,4,6-Trichlorophenol (CAS No. 88-06-2)
33. Tris(2,3-dibromopropyl) phosphate (CAS No. 126-72-7)

### III. Organochlorine Pesticides

1. Aldrin ((1R,4S,4aS,5S,8R,8aR)-1,2,3,4,10,10-hexachloro-1,2,4a,5,8,8a-hexahydro-1,4:5,8-dimethanonaphthlene) (CAS No. 309-00-2)
2. alpha-BHC ( $\alpha$ -1,2,3,4,5,6-hexachlorocyclohexane) (CAS No. 319-84-6)
3. beta-BHC ( $\beta$ -1,2,3,4,5,6-hexachlorocyclohexane) (CAS No. 319-85-7)
4. delta-BHC ( $\delta$ -1,2,3,4,5,6-hexachlorocyclohexane) (CAS No. 58-89-9)
5. gamma-BHC ( $\gamma$ -1,2,3,4,5,6-hexachlorocyclohexane) (CAS No. 319-86-8)
6. Chlordane (1,2,4,5,6,7,8,8-octachloro-3a,4,5,5a-tetrahydro-4,7-methanoindane) (CAS No. 57-74-9)
7. DDD (1,1-bis(4-chlorophenyl)-2,2-dichloroethane) (CAS No. 72-54-8)
8. DDE (1,1-bis(4-chlorophenyl)-2,2-dichloroethene) (CAS No. 72-55-9)
9. DDT (1,1,1-trichloro-2,2-bis(4-chlorophenyl)ethane) (CAS No. 50-29-3)
10. Dieldrin ((1aR,2R,2aS,3S,6R,7S,7aS)-3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-2,7:3,6-dimethanonaphtho[2,3-b]oxirene) (CAS No. 60-57-1)
11. Endosulfan I ((3 $\alpha$ ,5a $\beta$ ,6 $\alpha$ ,9 $\alpha$ ,9a $\beta$ )-6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-6,9-methano-2,4,3-benzodioxathiepine-3-oxide) (CAS No. 959-98-8)
12. Endosulfan II ((3 $\alpha$ ,5a $\beta$ ,6 $\beta$ ,9 $\beta$ ,9a $\alpha$ )-6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-6,9-methano-2,4,3-benzodioxathiepine-3-oxide) (CAS No. 33213-65-9)
13. Endrin (1a $\alpha$ ,2 $\beta$ ,2a $\beta$ ,3a $\alpha$ ,6 $\alpha$ ,6a $\beta$ ,7 $\beta$ ,7a $\alpha$ )-3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-2,7:3,6-dimethanonaphth(2,3-b)oxirene) (CAS No. 72-20-8)
14. Endrin aldehyde (1 $\alpha$ ,2 $\beta$ ,2a $\beta$ ,4 $\beta$ ,4a $\beta$ ,5 $\beta$ ,6a $\beta$ ,6b $\beta$ ,7R\*)-2,2a,3,3,4,7-hexachlorodecahydro-1,2,4-methenocyclopenta(c,d)pentalene-5-carboxaldehyde) (CAS No. 7421-93-4)
15. Heptachlor (1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-4,7-methano-1H-indene) (CAS No. 76-44-8)
16. Heptachlor epoxide ((1aR,1bS,2R,5S,5aR,6S,6aR)-2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-2,5-methano-2H-indeno(1,2b)oxirene) (CAS No. 1024-57-3)
17. Isodrin ((1R,4S,4aS,5R,8S,8aR)-rel-1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-dimethanonaphthalene) (CAS No. 465-73-6)



18. Kepone (1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-1,3,4-metheno-2H-cyclobuta(cd)pentalen-2-one) (CAS No. 143-50-0)
19. Methoxychlor (1,1'-(2,2,2-trichloroethylidene)bis(4-methoxybenzene)) (CAS No. 72-43-5)
20. Toxaphene (CAS No. 8001-35-2)

#### IV. Phenoxyacetic Acid Herbicides

1. 2,4-Dichlorophenoxyacetic acid (CAS No. 94-75-7)
2. Silvex (2-(2,4,5-trichlorophenoxy)propionic acid) (CAS No. 93-72-1)
3. 2,4,5-T (2,4,5-trichlorophenoxyacetic acid) (CAS No. 93-76-5)

#### V. PCBs

1. Aroclor 1016 (CAS No. 12674-11-2)
2. Aroclor 1221 (CAS No. 11104-28-2)
3. Aroclor 1232 (CAS No. 11141-16-5)
4. Aroclor 1242 (CAS No. 53469-21-9)
5. Aroclor 1248 (CAS No. 12672-29-6)
6. Aroclor 1254 (CAS No. 11097-69-1)
7. Aroclor 1260 (CAS No. 11096-82-5)
8. PCBs not otherwise specified (CAS No. 1336-36-3)

#### VI. Dioxins and Furans

1. Hexachlorodibenzo-p-dioxins (CAS No. 34465-46-8)
2. Hexachlorodibenzofuran (CAS No. 55684-94-1)
3. Pentachlorodibenzo-p-dioxins (CAS No. 36088-22-9)
4. Pentachlorodibenzofuran (CAS No. 30402-15-4)
5. Tetrachlorodibenzo-p-dioxins (CAS No. 41903-57-5)
6. Tetrachlorodibenzofuran (CAS No. 30402-14-3; 55722-27-5)
7. 2,3,7,8-Tetrachlorodibenzo-p-dioxin (2,3,7,8-tetrachlorodibenzo[b,e][1,4]dioxin) (CAS No. 1746-01-6)

BOARD NOTE: Derived from appendix III to 40 CFR 268 (2015).

(Source: Amended at 40 Ill. Reg. 12052, effective August 9, 2016)

#### **Section 728.APPENDIX D Wastes Excluded from Lab Packs**

Hazardous waste with the following USEPA hazardous waste numbers may not be placed in lab packs under the alternative lab pack treatment standards of Section 728.142(c): D009, F019, K003, K004, K005, K006, K062, K071, K100, K106, P010, P011, P012, P076, P078, U134, and U151.

BOARD NOTE: 35 Ill. Adm. Code 729.301 and 729.312 include additional limitations on the use of lab packs.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

**Section 728.Appendix E Organic Lab Packs (Repealed)**

(Source: Repealed at 19 Ill. Reg. 9660, effective June 27, 1995)

**Section 728.APPENDIX F Technologies to Achieve Deactivation of Characteristics**

The treatment standard for many characteristic wastes is stated in Table T, entitled “Treatment Standards for Hazardous Wastes”, as “DEACT and meet Section 728.148 standards”. USEPA 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 CWA or in a CWA-equivalent facility, and that also contain underlying hazardous constituents (see Section 728.102(i)) must 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 F presents a partial list of technologies, utilizing the five letter technology codes established in Table C, 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.

USEPA hazardous waste number/subcategory	Nonwastewaters	Wastewaters
D001 Ignitable Liquids based on 35 Ill. Adm. Code 721.121(a)(1)—Low TOC Nonwastewater Subcategory (containing one percent to <10 percent TOC)	RORGS WETOX INCIN CHOXD BIODG	n.a.
D001 Ignitable Liquids based on 35 Ill. Adm. Code 721.121(a)(1)—Ignitable Wastewater Subcategory (containing <one percent TOC)	n.a.	WETOX RORGS INCIN CHOXD BIODG
D001 Compressed Gases based on 35 Ill. Adm. Code 721.121(a)(3)	RCGAS FSUBS INCIN ADGAS fb. INCIN ADGAS fb. (CHOXD; or CHRED)	n.a.
D001 Ignitable Reactives based on 35 Ill. Adm. Code 721.121(a)(2)	WTRRX CHOXD CHRED	n.a.

	STABL INCIN	
D001 Ignitable Oxidizers based on 35 Ill. Adm. Code 721.121(a)(4)	CHRED INCIN	CHRED INCIN
D002 Acid Subcategory based on 35 Ill. Adm. Code 721.122(a)(1) with pH less than or equal to two	RCORR NEUTR INCIN	NEUTR INCIN
D002 Alkaline Subcategory based on 35 Ill. Adm. Code 721.122(a)(1) with pH greater than or equal to 12.5	NEUTR INCIN	NEUTR INCIN
D002 Other Corrosives based on 35 Ill. Adm. Code 721.122(a)(2)	CHOXD CHRED INCIN STABL	CHOXD CHRED INCIN
D003 Water Reactives based on 35 Ill. Adm. Code 721.123(a)(2), (a)(3), and (a)(4)	INCIN WTRRX CHOXD CHRED	n.a.
D003 Reactive Sulfides based on 35 Ill. Adm. Code 721.123(a)(5)	CHOXD CHRED INCIN STABL	CHOXD CHRED BIODG INCIN
D003 Explosives based on 35 Ill. Adm. Code 721.123(a)(6), (a)(7), and (a)(8)	INCIN CHOXD CHRED	INCIN CHOXD CHRED BIODG CARBN
D003 Other Reactives based on 35 Ill. Adm. Code 721.123(a)(1)	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

K045 Spent carbon from the treatment of wastewaters containing explosives	CHOXD	CHOXD
	CHRED	CHRED
	INCIN	BIODG
		CARBN
		INCIN
K047 Pink/red water from TNT operations	CHOXD	CHOXD
	CHRED	CHRED
	INCIN	BIODG
		CARBN
		INCIN

Note: “n.a.” stands for “not applicable”.

“fb.” stands for “followed by”.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

**Section 728.APPENDIX G Federal Effective Dates**

The following are the effective dates for the USEPA rules in 40 CFR 268. These generally became effective as Illinois rules at a later date.

TABLE 1  
EFFECTIVE DATES OF SURFACE DISPOSED WASTES (NON-SOIL AND DEBRIS) REGULATED IN THE LDRS<sup>a</sup>—COMPREHENSIVE LIST

Waste code	Waste category	Effective date
D001 <sup>c</sup>	All (except High TOC Ignitable Liquids)	August 9, 1993
D001	High TOC Ignitable Liquids	August 8, 1990
D002 <sup>c</sup>	All	August 9, 1993
D003 <sup>e</sup>	Newly identified surface-disposed elemental phosphorus processing wastes	May 26, 2000
D004	Newly identified D004 and mineral processing wastes	August 24, 1998
D004	Mixed radioactive/newly identified D004 or mineral processing wastes	May 26, 2000
D005	Newly identified D005 and mineral processing wastes	August 24, 1998
D005	Mixed radioactive/newly identified D005 or mineral processing wastes	May 26, 2000
D006	Newly identified D006 and mineral processing wastes	August 24, 1998
D006	Mixed radioactive/newly identified D006 or mineral processing wastes	May 26, 2000
D007	Newly identified D007 and mineral processing wastes	August 24, 1998

D007	Mixed radioactive/newly identified D007 or mineral processing wastes	May 26, 2000
D008	Newly identified D008 and mineral processing waste	August 24, 1998
D008	Mixed radioactive/newly identified D008 or mineral processing wastes	May 26, 2000
D009	Newly identified D009 and mineral processing waste	August 24, 1998
D009	Mixed radioactive/newly identified D009 or mineral processing wastes	May 26, 2000
D010	Newly identified D010 and mineral processing wastes	August 24, 1998
D010	Mixed radioactive/newly identified D010 or mineral processing wastes	May 26, 2000
D011	Newly identified D011 and mineral processing wastes	August 24, 1998
D011	Mixed radioactive/newly identified D011 or mineral processing wastes	May 26, 2000
D012 (that exhibit the toxicity characteristic based on the TCLP) <sup>d</sup>	All	December 14, 1994
D013 (that exhibit the toxicity characteristic based on the TCLP) <sup>d</sup>	All	December 14, 1994
D014 (that exhibit the toxicity characteristic based on the TCLP) <sup>d</sup>	All	December 14, 1994
D015 (that exhibit the toxicity characteristic based on the TCLP) <sup>d</sup>	All	December 14, 1994
D016 (that exhibit the toxicity characteristic based on the TCLP) <sup>d</sup>	All	December 14, 1994
D017 (that exhibit the toxicity characteristic based on the TCLP) <sup>d</sup>	All	December 14, 1994
D018	Mixed with radioactive wastes	September 19, 1996
D018	All others	December 19, 1994
D019	Mixed with radioactive wastes	September 19, 1996
D019	All others	December 19, 1994
D020	Mixed with radioactive wastes	September 19, 1996
D020	All others	December 19, 1994
D021	Mixed with radioactive wastes	September 19, 1996
D021	All others	December 19, 1994
D022	Mixed with radioactive wastes	September 19, 1996
D022	All others	December 19, 1994

D023	Mixed with radioactive wastes	September 19, 1996
D023	All others	December 19, 1994
D024	Mixed with radioactive wastes	September 19, 1996
D024	All others	December 19, 1994
D025	Mixed with radioactive wastes	September 19, 1996
D025	All others	December 19, 1994
D026	Mixed with radioactive wastes	September 19, 1996
D026	All others	December 19, 1994
D027	Mixed with radioactive wastes	September 19, 1996
D027	All others	December 19, 1994
D028	Mixed with radioactive wastes	September 19, 1996
D028	All others	December 19, 1994
D029	Mixed with radioactive wastes	September 19, 1996
D029	All others	December 19, 1994
D030	Mixed with radioactive wastes	September 19, 1996
D030	All others	December 19, 1994
D031	Mixed with radioactive wastes	September 19, 1996
D031	All others	December 19, 1994
D032	Mixed with radioactive wastes	September 19, 1996
D032	All others	December 19, 1994
D033	Mixed with radioactive wastes	September 19, 1996
D033	All others	December 19, 1994
D034	Mixed with radioactive wastes	September 19, 1996
D034	All others	December 19, 1994
D035	Mixed with radioactive wastes	September 19, 1996
D035	All others	December 19, 1994
D036	Mixed with radioactive wastes	September 19, 1996
D036	All others	December 19, 1994
D037	Mixed with radioactive wastes	September 19, 1996
D037	All others	December 19, 1994
D038	Mixed with radioactive wastes	September 19, 1996
D038	All others	December 19, 1994
D039	Mixed with radioactive wastes	September 19, 1996
D039	All others	December 19, 1994
D040	Mixed with radioactive wastes	September 19, 1996
D040	All others	December 19, 1994
D041	Mixed with radioactive wastes	September 19, 1996
D041	All others	December 19, 1994
D042	Mixed with radioactive wastes	September 19, 1996
D042	All others	December 19, 1994
D043	Mixed with radioactive wastes	September 19, 1996
D043	All others	December 19, 1994
F001	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent- containing sludges and solids	November 8, 1988

F001	All others	November 8, 1986
F002 (1,1,2-trichloroethane)	Wastewater and Nonwastewater	August 8, 1990
F002	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids	November 8, 1988
F002	All others	November 8, 1986
F003	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids	November 8, 1988
F003	All others	November 8, 1986
F004	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids	November 8, 1988
F004	All others	November 8, 1986
F005 (benzene, 2-ethoxy ethanol, 2-nitropropane)	Wastewater and Nonwastewater	August 8, 1990
F005	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids	November 8, 1988
F005	All others	November 8, 1986
F006	Wastewater	August 8, 1990
F006	Nonwastewater	August 8, 1988
F006 (cyanides)	Nonwastewater	July 8, 1989
F007	All	July 8, 1989
F008	All	July 8, 1989
F009	All	July 8, 1989
F010	All	June 8, 1989
F011 (cyanides)	Nonwastewater	December 8, 1989
F011	All others	July 8, 1989
F012 (cyanides)	Nonwastewater	December 8, 1989
F012	All others	July 8, 1989
F019	All	August 8, 1990
F020	All	November 8, 1988
F021	All	November 8, 1988
F025	All	August 8, 1990
F026	All	November 8, 1988
F027	All	November 8, 1988
F028	All	November 8, 1988
F032	Mixed with radioactive wastes	May 12, 1999
F032	All others	August 12, 1997
F034	Mixed with radioactive wastes	May 12, 1999
F034	All others	August 12, 1997

F035	Mixed with radioactive wastes	May 12, 1999
F035	All others	August 12, 1997
F037	Not generated from surface impoundment cleanouts or closures	June 30, 1993
F037	Generated from surface impoundment cleanouts or closures	June 30, 1994
F037	Mixed with radioactive wastes	June 30, 1994
F038	Not generated from surface impoundment cleanouts or closures	June 30, 1993
F038	Generated from surface impoundment cleanouts or closures	June 30, 1994
F038	Mixed with radioactive wastes	June 30, 1994
F039	Wastewater	August 8, 1990
F039	Nonwastewater	May 8, 1992
K001 (organics) <sup>b</sup>	All	August 8, 1988
K001	All others	August 8, 1988
K002	All	August 8, 1990
K003	All	August 8, 1990
K004	Wastewater	August 8, 1990
K004	Nonwastewater	August 8, 1988
K005	Wastewater	August 8, 1990
K005	Nonwastewater	June 8, 1989
K006	All	August 8, 1990
K007	Wastewater	August 8, 1990
K007	Nonwastewater	June 8, 1989
K008	Wastewater	August 8, 1990
K008	Nonwastewater	August 8, 1988
K009	All	June 8, 1989
K010	All	June 8, 1989
K011	Wastewater	August 8, 1990
K011	Nonwastewater	June 8, 1989
K013	Wastewater	August 8, 1990
K013	Nonwastewater	June 8, 1989
K014	Wastewater	August 8, 1990
K014	Nonwastewater	June 8, 1989
K015	Wastewater	August 8, 1988
K015	Nonwastewater	August 8, 1990
K016	All	August 8, 1988
K017	All	August 8, 1990
K018	All	August 8, 1988
K019	All	August 8, 1988
K020	All	August 8, 1988
K021	Wastewater	August 8, 1990
K021	Nonwastewater	August 8, 1988
K022	Wastewater	August 8, 1990
K022	Nonwastewater	August 8, 1988



K023	All	June 8, 1989
K024	All	August 8, 1988
K025	Wastewater	August 8, 1990
K025	Nonwastewater	August 8, 1988
K026	All	August 8, 1990
K027	All	June 8, 1989
K028 (metals)	Nonwastewater	August 8, 1990
K028	All others	June 8, 1989
K029	Wastewater	August 8, 1990
K029	Nonwastewater	June 8, 1989
K030	All	August 8, 1988
K031	Wastewater	August 8, 1990
K031	Nonwastewater	May 8, 1992
K032	All	August 8, 1990
K033	All	August 8, 1990
K034	All	August 8, 1990
K035	All	August 8, 1990
K036	Wastewater	June 8, 1989
K036	Nonwastewater	August 8, 1988
K037 <sup>b</sup>	Wastewater	August 8, 1988
K037	Nonwastewater	August 8, 1988
K038	All	June 8, 1989
K039	All	June 8, 1989
K040	All	June 8, 1989
K041	All	August 8, 1990
K042	All	August 8, 1990
K043	All	June 8, 1989
K044	All	August 8, 1988
K045	All	August 8, 1988
K046 (Nonreactive)	Nonwastewater	August 8, 1988
K046	All others	August 8, 1990
K047	All	August 8, 1988
K048	Wastewater	August 8, 1990
K048	Nonwastewater	November 8, 1990
K049	Wastewater	August 8, 1990
K049	Nonwastewater	November 8, 1990
K050	Wastewater	August 8, 1990
K050	Nonwastewater	November 8, 1990
K051	Wastewater	August 8, 1990
K051	Nonwastewater	November 8, 1990
K052	Wastewater	August 8, 1990
K052	Nonwastewater	November 8, 1990
K060	Wastewater	August 8, 1990
K060	Nonwastewater	August 8, 1988
K061	Wastewater	August 8, 1990
K061	Nonwastewater	June 30, 1992

K062	All	August 8, 1988
K069 (non-calcium sulfate)	Nonwastewater	August 8, 1988
K069	All others	August 8, 1990
K071	All	August 8, 1990
K073	All	August 8, 1990
K083	All	August 8, 1990
K084	Wastewater	August 8, 1990
K084	Nonwastewater	May 8, 1992
K085	All	August 8, 1990
K086 (organics) <sup>b</sup>	All	August 8, 1988
K086	All others	August 8, 1988
K087	All	August 8, 1988
K088	All others	October 8, 1997
K088	All others	January 8, 1997
K093	All	June 8, 1989
K094	All	June 8, 1989
K095	Wastewater	August 8, 1990
K095	Nonwastewater	June 8, 1989
K096	Wastewater	August 8, 1990
K096	Nonwastewater	June 8, 1989
K097	All	August 8, 1990
K098	All	August 8, 1990
K099	All	August 8, 1988
K100	Wastewater	August 8, 1990
K100	Nonwastewater	August 8, 1988
K101 (organics)	Wastewater	August 8, 1988
K101 (metals)	Wastewater	August 8, 1990
K101 (organics)	Nonwastewater	August 8, 1988
K101 (metals)	Nonwastewater	May 8, 1992
K102 (organics)	Wastewater	August 8, 1988
K102 (metals)	Wastewater	August 8, 1990
K102 (organics)	Nonwastewater	August 8, 1988
K102 (metals)	Nonwastewater	May 8, 1992
K103	All	August 8, 1988
K104	All	August 8, 1988
K105	All	August 8, 1990
K106	Wastewater	August 8, 1990
K106	Nonwastewater	May 8, 1992
K107	Mixed with radioactive wastes	June 30, 1994
K107	All others	November 9, 1992
K108	Mixed with radioactive wastes	June 30, 1994
K108	All others	November 9, 1992
K109	Mixed with radioactive wastes	June 30, 1994
K109	All others	November 9, 1992
K110	Mixed with radioactive wastes	June 30, 1994
K110	All others	November 9, 1992

K111	Mixed with radioactive wastes	June 30, 1994
K111	All others	November 9, 1992
K112	Mixed with radioactive wastes	June 30, 1994
K112	All others	November 9, 1992
K113	All	June 8, 1989
K114	All	June 8, 1989
K115	All	June 8, 1989
K116	All	June 8, 1989
K117	Mixed with radioactive wastes	June 30, 1994
K117	All others	November 9, 1992
K118	Mixed with radioactive wastes	June 30, 1994
K118	All others	November 9, 1992
K123	Mixed with radioactive wastes	June 30, 1994
K123	All others	November 9, 1992
K124	Mixed with radioactive wastes	June 30, 1994
K124	All others	November 9, 1992
K125	Mixed with radioactive wastes	June 30, 1994
K125	All others	November 9, 1992
K126	Mixed with radioactive wastes	June 30, 1994
K126	All others	November 9, 1992
K131	Mixed with radioactive wastes	June 30, 1994
K131	All others	November 9, 1992
K132	Mixed with radioactive wastes	June 30, 1994
K132	All others	November 9, 1992
K136	Mixed with radioactive wastes	June 30, 1994
K136	All others	November 9, 1992
K141	Mixed with radioactive wastes	September 19, 1996
K141	All others	December 19, 1994
K142	Mixed with radioactive wastes	September 19, 1996
K142	All others	December 19, 1994
K143	Mixed with radioactive wastes	September 19, 1996
K143	All others	December 19, 1994
K144	Mixed with radioactive wastes	September 19, 1996
K144	All others	December 19, 1994
K145	Mixed with radioactive wastes	September 19, 1996
K145	All others	December 19, 1994
K147	Mixed with radioactive wastes	September 19, 1996
K147	All others	December 19, 1994
K148	Mixed with radioactive wastes	September 19, 1996
K148	All others	December 19, 1994
K149	Mixed with radioactive wastes	September 19, 1996
K149	All others	December 19, 1994
K150	Mixed with radioactive wastes	September 19, 1996
K150	All others	December 19, 1994
K151	Mixed with radioactive wastes	September 19, 1996
K151	All others	December 19, 1994

K156	Mixed with radioactive wastes	April 8, 1998
K156	All others	July 8, 1996
K157	Mixed with radioactive wastes	April 8, 1998
K157	All others	July 8, 1996
K158	Mixed with radioactive wastes	April 8, 1998
K158	All others	July 8, 1996
K159	Mixed with radioactive wastes	April 8, 1998
K159	All others	July 8, 1996
K160	Mixed with radioactive wastes	April 8, 1998
K160	All others	July 8, 1996
K161	Mixed with radioactive wastes	April 8, 1998
K161	All others	July 8, 1996
K169	All	February 8, 1999
K170	All	February 8, 1999
K171	All	February 8, 1999
K172	All	February 8, 1999
K174	All	May 7, 2001
K175	All	May 7, 2001
K176	All	May 20, 2002
K177	All	May 20, 2002
K178	All	May 20, 2002
K181	All	August 23, 2005
P001	All	August 8, 1990
P002	All	August 8, 1990
P003	All	August 8, 1990
P004	All	August 8, 1990
P005	All	August 8, 1990
P006	All	August 8, 1990
P007	All	August 8, 1990
P008	All	August 8, 1990
P009	All	August 8, 1990
P010	Wastewater	August 8, 1990
P010	Nonwastewater	May 8, 1992
P011	Wastewater	August 8, 1990
P011	Nonwastewater	May 8, 1992
P012	Wastewater	August 8, 1990
P012	Nonwastewater	May 8, 1992
P013 (barium)	Nonwastewater	August 8, 1990
P013	All others	June 8, 1989
P014	All	August 8, 1990
P015	All	August 8, 1990
P016	All	August 8, 1990
P017	All	August 8, 1990
P018	All	August 8, 1990
P020	All	August 8, 1990
P021	All	June 8, 1989

P022	All	August 8, 1990
P023	All	August 8, 1990
P024	All	August 8, 1990
P026	All	August 8, 1990
P027	All	August 8, 1990
P028	All	August 8, 1990
P029	All	June 8, 1989
P030	All	June 8, 1989
P031	All	August 8, 1990
P033	All	August 8, 1990
P034	All	August 8, 1990
P036	Wastewater	August 8, 1990
P036	Nonwastewater	May 8, 1992
P037	All	August 8, 1990
P038	Wastewater	August 8, 1990
P038	Nonwastewater	May 8, 1992
P039	All	June 8, 1989
P040	All	June 8, 1989
P041	All	June 8, 1989
P042	All	August 8, 1990
P043	All	June 8, 1989
P044	All	June 8, 1989
P045	All	August 8, 1990
P046	All	August 8, 1990
P047	All	August 8, 1990
P048	All	August 8, 1990
P049	All	August 8, 1990
P050	All	August 8, 1990
P051	All	August 8, 1990
P054	All	August 8, 1990
P056	All	August 8, 1990
P057	All	August 8, 1990
P058	All	August 8, 1990
P059	All	August 8, 1990
P060	All	August 8, 1990
P062	All	June 8, 1989
P063	All	June 8, 1989
P064	All	August 8, 1990
P065	Wastewater	August 8, 1990
P065	Nonwastewater	May 8, 1992
P066	All	August 8, 1990
P067	All	August 8, 1990
P068	All	August 8, 1990
P069	All	August 8, 1990
P070	All	August 8, 1990
P071	All	June 8, 1989

P072	All	August 8, 1990
P073	All	August 8, 1990
P074	All	June 8, 1989
P075	All	August 8, 1990
P076	All	August 8, 1990
P077	All	August 8, 1990
P078	All	August 8, 1990
P081	All	August 8, 1990
P082	All	August 8, 1990
P084	All	August 8, 1990
P085	All	June 8, 1989
P087	All	May 8, 1992
P088	All	August 8, 1990
P089	All	June 8, 1989
P092	Wastewater	August 8, 1990
P092	Nonwastewater	May 8, 1992
P093	All	August 8, 1990
P094	All	June 8, 1989
P095	All	August 8, 1990
P096	All	August 8, 1990
P097	All	June 8, 1989
P098	All	June 8, 1989
P099 (silver)	Wastewater	August 8, 1990
P099	All others	June 8, 1989
P101	All	August 8, 1990
P102	All	August 8, 1990
P103	All	August 8, 1990
P104 (silver)	Wastewater	August 8, 1990
P104	All others	June 8, 1989
P105	All	August 8, 1990
P106	All	June 8, 1989
P108	All	August 8, 1990
P109	All	June 8, 1989
P110	All	August 8, 1990
P111	All	June 8, 1989
P112	All	August 8, 1990
P113	All	August 8, 1990
P114	All	August 8, 1990
P115	All	August 8, 1990
P116	All	August 8, 1990
P118	All	August 8, 1990
P119	All	August 8, 1990
P120	All	August 8, 1990
P121	All	June 8, 1989
P122	All	August 8, 1990
P123	All	August 8, 1990

P127	Mixed with radioactive wastes	April 8, 1998
P127	All others	July 8, 1996
P128	Mixed with radioactive wastes	April 8, 1998
P128	All others	July 8, 1996
P185	Mixed with radioactive wastes	April 8, 1998
P185	All others	July 8, 1996
P188	Mixed with radioactive wastes	April 8, 1998
P188	All others	July 8, 1996
P189	Mixed with radioactive wastes	April 8, 1998
P189	All others	July 8, 1996
P190	Mixed with radioactive wastes	April 8, 1998
P190	All others	July 8, 1996
P191	Mixed with radioactive wastes	April 8, 1998
P191	All others	July 8, 1996
P192	Mixed with radioactive wastes	April 8, 1998
P192	All others	July 8, 1996
P194	Mixed with radioactive wastes	April 8, 1998
P194	All others	July 8, 1996
P196	Mixed with radioactive wastes	April 8, 1998
P196	All others	July 8, 1996
P197	Mixed with radioactive wastes	April 8, 1998
P197	All others	July 8, 1996
P198	Mixed with radioactive wastes	April 8, 1998
P198	All others	July 8, 1996
P199	Mixed with radioactive wastes	April 8, 1998
P199	All others	July 8, 1996
P201	Mixed with radioactive wastes	April 8, 1998
P201	All others	July 8, 1996
P202	Mixed with radioactive wastes	April 8, 1998
P202	All others	July 8, 1996
P203	Mixed with radioactive wastes	April 8, 1998
P203	All others	July 8, 1996
P204	Mixed with radioactive wastes	April 8, 1998
P204	All others	July 8, 1996
P205	Mixed with radioactive wastes	April 8, 1998
P205	All others	July 8, 1996
U001	All	August 8, 1990
U002	All	August 8, 1990
U003	All	August 8, 1990
U004	All	August 8, 1990
U005	All	August 8, 1990
U006	All	August 8, 1990
U007	All	August 8, 1990
U008	All	August 8, 1990
U009	All	August 8, 1990
U010	All	August 8, 1990

U011	All	August 8, 1990
U012	All	August 8, 1990
U014	All	August 8, 1990
U015	All	August 8, 1990
U016	All	August 8, 1990
U017	All	August 8, 1990
U018	All	August 8, 1990
U019	All	August 8, 1990
U020	All	August 8, 1990
U021	All	August 8, 1990
U022	All	August 8, 1990
U023	All	August 8, 1990
U024	All	August 8, 1990
U025	All	August 8, 1990
U026	All	August 8, 1990
U027	All	August 8, 1990
U028	All	June 8, 1989
U029	All	August 8, 1990
U030	All	August 8, 1990
U031	All	August 8, 1990
U032	All	August 8, 1990
U033	All	August 8, 1990
U034	All	August 8, 1990
U035	All	August 8, 1990
U036	All	August 8, 1990
U037	All	August 8, 1990
U038	All	August 8, 1990
U039	All	August 8, 1990
U041	All	August 8, 1990
U042	All	August 8, 1990
U043	All	August 8, 1990
U044	All	August 8, 1990
U045	All	August 8, 1990
U046	All	August 8, 1990
U047	All	August 8, 1990
U048	All	August 8, 1990
U049	All	August 8, 1990
U050	All	August 8, 1990
U051	All	August 8, 1990
U052	All	August 8, 1990
U053	All	August 8, 1990
U055	All	August 8, 1990
U056	All	August 8, 1990
U057	All	August 8, 1990
U058	All	June 8, 1989
U059	All	August 8, 1990



U060	All	August 8, 1990
U061	All	August 8, 1990
U062	All	August 8, 1990
U063	All	August 8, 1990
U064	All	August 8, 1990
U066	All	August 8, 1990
U067	All	August 8, 1990
U068	All	August 8, 1990
U069	All	June 30, 1992
U070	All	August 8, 1990
U071	All	August 8, 1990
U072	All	August 8, 1990
U073	All	August 8, 1990
U074	All	August 8, 1990
U075	All	August 8, 1990
U076	All	August 8, 1990
U077	All	August 8, 1990
U078	All	August 8, 1990
U079	All	August 8, 1990
U080	All	August 8, 1990
U081	All	August 8, 1990
U082	All	August 8, 1990
U083	All	August 8, 1990
U084	All	August 8, 1990
U085	All	August 8, 1990
U086	All	August 8, 1990
U087	All	June 8, 1989
U088	All	June 8, 1989
U089	All	August 8, 1990
U090	All	August 8, 1990
U091	All	August 8, 1990
U092	All	August 8, 1990
U093	All	August 8, 1990
U094	All	August 8, 1990
U095	All	August 8, 1990
U096	All	August 8, 1990
U097	All	August 8, 1990
U098	All	August 8, 1990
U099	All	August 8, 1990
U101	All	August 8, 1990
U102	All	June 8, 1989
U103	All	August 8, 1990
U105	All	August 8, 1990
U106	All	August 8, 1990
U107	All	June 8, 1989
U108	All	August 8, 1990

U109	All	August 8, 1990
U110	All	August 8, 1990
U111	All	August 8, 1990
U112	All	August 8, 1990
U113	All	August 8, 1990
U114	All	August 8, 1990
U115	All	August 8, 1990
U116	All	August 8, 1990
U117	All	August 8, 1990
U118	All	August 8, 1990
U119	All	August 8, 1990
U120	All	August 8, 1990
U121	All	August 8, 1990
U122	All	August 8, 1990
U123	All	August 8, 1990
U124	All	August 8, 1990
U125	All	August 8, 1990
U126	All	August 8, 1990
U127	All	August 8, 1990
U128	All	August 8, 1990
U129	All	August 8, 1990
U130	All	August 8, 1990
U131	All	August 8, 1990
U132	All	August 8, 1990
U133	All	August 8, 1990
U134	All	August 8, 1990
U135	All	August 8, 1990
U136	Wastewater	August 8, 1990
U136	Nonwastewater	May 8, 1992
U137	All	August 8, 1990
U138	All	August 8, 1990
U140	All	August 8, 1990
U141	All	August 8, 1990
U142	All	August 8, 1990
U143	All	August 8, 1990
U144	All	August 8, 1990
U145	All	August 8, 1990
U146	All	August 8, 1990
U147	All	August 8, 1990
U148	All	August 8, 1990
U149	All	August 8, 1990
U150	All	August 8, 1990
U151	Wastewater	August 8, 1990
U151	Nonwastewater	May 8, 1992
U152	All	August 8, 1990
U153	All	August 8, 1990

U154	All	August 8, 1990
U155	All	August 8, 1990
U156	All	August 8, 1990
U157	All	August 8, 1990
U158	All	August 8, 1990
U159	All	August 8, 1990
U160	All	August 8, 1990
U161	All	August 8, 1990
U162	All	August 8, 1990
U163	All	August 8, 1990
U164	All	August 8, 1990
U165	All	August 8, 1990
U166	All	August 8, 1990
U167	All	August 8, 1990
U168	All	August 8, 1990
U169	All	August 8, 1990
U170	All	August 8, 1990
U171	All	August 8, 1990
U172	All	August 8, 1990
U173	All	August 8, 1990
U174	All	August 8, 1990
U176	All	August 8, 1990
U177	All	August 8, 1990
U178	All	August 8, 1990
U179	All	August 8, 1990
U180	All	August 8, 1990
U181	All	August 8, 1990
U182	All	August 8, 1990
U183	All	August 8, 1990
U184	All	August 8, 1990
U185	All	August 8, 1990
U186	All	August 8, 1990
U187	All	August 8, 1990
U188	All	August 8, 1990
U189	All	August 8, 1990
U190	All	June 8, 1989
U191	All	August 8, 1990
U192	All	August 8, 1990
U193	All	August 8, 1990
U194	All	June 8, 1989
U196	All	August 8, 1990
U197	All	August 8, 1990
U200	All	August 8, 1990
U201	All	August 8, 1990
U203	All	August 8, 1990
U204	All	August 8, 1990

U205	All	August 8, 1990
U206	All	August 8, 1990
U207	All	August 8, 1990
U208	All	August 8, 1990
U209	All	August 8, 1990
U210	All	August 8, 1990
U211	All	August 8, 1990
U213	All	August 8, 1990
U214	All	August 8, 1990
U215	All	August 8, 1990
U216	All	August 8, 1990
U217	All	August 8, 1990
U218	All	August 8, 1990
U219	All	August 8, 1990
U220	All	August 8, 1990
U221	All	June 8, 1989
U222	All	August 8, 1990
U223	All	June 8, 1989
U225	All	August 8, 1990
U226	All	August 8, 1990
U227	All	August 8, 1990
U228	All	August 8, 1990
U234	All	August 8, 1990
U235	All	June 8, 1989
U236	All	August 8, 1990
U237	All	August 8, 1990
U238	All	August 8, 1990
U239	All	August 8, 1990
U240	All	August 8, 1990
U243	All	August 8, 1990
U244	All	August 8, 1990
U246	All	August 8, 1990
U247	All	August 8, 1990
U248	All	August 8, 1990
U249	All	August 8, 1990
U271	Mixed with radioactive wastes	April 8, 1998
U271	All others	July 8, 1996
U277	Mixed with radioactive wastes	April 8, 1998
U277	All others	July 8, 1996
U278	Mixed with radioactive wastes	April 8, 1998
U278	All others	July 8, 1996
U279	Mixed with radioactive wastes	April 8, 1998
U279	All others	July 8, 1996
U280	Mixed with radioactive wastes	April 8, 1998
U280	All others	July 8, 1996
U328	Mixed with radioactive wastes	June 30, 1994

U328	All others	November 9, 1992
U353	Mixed with radioactive wastes	June 30, 1994
U353	All others	November 9, 1992
U359	Mixed with radioactive wastes	June 30, 1994
U359	All others	November 9, 1992
U364	Mixed with radioactive wastes	April 8, 1998
U364	All others	July 8, 1996
U365	Mixed with radioactive wastes	April 8, 1998
U365	All others	July 8, 1996
U366	Mixed with radioactive wastes	April 8, 1998
U366	All others	July 8, 1996
U367	Mixed with radioactive wastes	April 8, 1998
U367	All others	July 8, 1996
U372	Mixed with radioactive wastes	April 8, 1998
U372	All others	July 8, 1996
U373	Mixed with radioactive wastes	April 8, 1998
U373	All others	July 8, 1996
U375	Mixed with radioactive wastes	April 8, 1998
U375	All others	July 8, 1996
U376	Mixed with radioactive wastes	April 8, 1998
U376	All others	July 8, 1996
U377	Mixed with radioactive wastes	April 8, 1998
U377	All others	July 8, 1996
U378	Mixed with radioactive wastes	April 8, 1998
U378	All others	July 8, 1996
U379	Mixed with radioactive wastes	April 8, 1998
U379	All others	July 8, 1996
U381	Mixed with radioactive wastes	April 8, 1998
U381	All others	July 8, 1996
U382	Mixed with radioactive wastes	April 8, 1998
U382	All others	July 8, 1996
U383	Mixed with radioactive wastes	April 8, 1998
U383	All others	July 8, 1996
U384	Mixed with radioactive wastes	April 8, 1998
U384	All others	July 8, 1996
U385	Mixed with radioactive wastes	April 8, 1998
U385	All others	July 8, 1996
U386	Mixed with radioactive wastes	April 8, 1998
U386	All others	July 8, 1996
U387	Mixed with radioactive wastes	April 8, 1998
U387	All others	July 8, 1996
U389	Mixed with radioactive wastes	April 8, 1998
U389	All others	July 8, 1996
U390	Mixed with radioactive wastes	April 8, 1998
U390	All others	July 8, 1996
U391	Mixed with radioactive wastes	April 8, 1998

U391	All others	July 8, 1996
U392	Mixed with radioactive wastes	April 8, 1998
U392	All others	July 8, 1996
U393	Mixed with radioactive wastes	April 8, 1998
U393	All others	July 8, 1996
U394	Mixed with radioactive wastes	April 8, 1998
U394	All others	July 8, 1996
U395	Mixed with radioactive wastes	April 8, 1998
U395	All others	July 8, 1996
U396	Mixed with radioactive wastes	April 8, 1998
U396	All others	July 8, 1996
U400	Mixed with radioactive wastes	April 8, 1998
U400	All others	July 8, 1996
U401	Mixed with radioactive wastes	April 8, 1998
U401	All others	July 8, 1996
U402	Mixed with radioactive wastes	April 8, 1998
U402	All others	July 8, 1996
U403	Mixed with radioactive wastes	April 8, 1998
U403	All others	July 8, 1996
U404	Mixed with radioactive wastes	April 8, 1998
U404	All others	July 8, 1996
U407	Mixed with radioactive wastes	April 8, 1998
U407	All others	July 8, 1996
U409	Mixed with radioactive wastes	April 8, 1998
U409	All others	July 8, 1996
U410	Mixed with radioactive wastes	April 8, 1998
U410	All others	July 8, 1996
U411	Mixed with radioactive wastes	April 8, 1998
U411	All others	July 8, 1996

<sup>a</sup> This table also does not include contaminated soil and debris wastes.

<sup>b</sup> The standard was revised in the Third Third Final Rule (adopted by USEPA at 55 Fed. Reg. 22520 (June 1, 1990), which the Board adopted in docket R90-11 at 15 Ill. Reg. 9462, effective June 17, 1991.

<sup>c</sup> USEPA amended the standard in the Third Third Emergency Rule (at 58 Fed. Reg. 29860 (May 24, 1993), which the Board adopted in docket R93-16 at 18 Ill. Reg. 6799, effective April 26, 1994); the original effective date was August 8, 1990.

<sup>d</sup> The standard was revised in the Phase II Final Rule (that USEPA adopted at 59 Fed. Reg. 47982 (September 19, 1994), which the Board adopted in docket R95-6 at 19 Ill. Reg. 9660, effective June 27, 1995); the original effective date was August 8, 1990.

<sup>e</sup> The standards for selected reactive wastes was revised in the Phase III Final Rule (that USEPA adopted at 61 Fed. Reg. 15566 (April 8, 1996), which the Board adopted in

docket R96-10/R97-3/R97-5 (consolidated) at 22 Ill. Reg. 783, effective December 16, 1997); the original effective date was August 8, 1990.

TABLE 2  
SUMMARY OF EFFECTIVE DATES OF LAND DISPOSAL RESTRICTIONS  
FOR CONTAMINATED SOIL AND DEBRIS (CSD)

Restricted hazardous waste in CSD	Effective date
1. Solvent- (F001-F005) and dioxin- (F020-F023 and F026-F028) containing soil and debris from CERCLA response or RCRA corrective actions.	November 8, 1990
2. Soil and debris not from CERCLA response or RCRA corrective actions contaminated with less than one percent total solvents (F001-F005) or dioxins (F020-F023 and F026-F028).	November 8, 1988
3. All soil and debris contaminated with First Third wastes for which treatment standards are based on incineration.	August 8, 1990
4. All soil and debris contaminated with Second Third wastes for which treatment standards are based on incineration.	June 8, 1991
5. All soil and debris contaminated with Third Third wastes or, First or Second Third “soft hammer” wastes that had treatment standards promulgated in the Third Third rule, for which treatment standards are based on incineration, vitrification, or mercury retorting, acid leaching followed by chemical precipitation, or thermal recovery of metals, as well as all inorganic solids debris contaminated with D004-D011 wastes, and all soil and debris contaminated with mixed RCRA/radioactive wastes.	May 8, 1992
6. Soil and debris contaminated with D012-D043, K141-K145, and K147-151 wastes.	December 19, 1994
7. Debris (only) contaminated with F037, F038, K107-K112, K117, K118, K123-K126, K131, K132, K136, U328, U353, U359.	December 19, 1994
8. Soil and debris contaminated with K156- K161, P127, P128, P188-P192, P194, P196- P199, P201-P205, U271, U277-U280, U364-U367, U372, U373, U375-U379, U381-U387, U389-U396, U400-U404, U407, and U409-U411 wastes.	July 8, 1996
9. Soil and debris contaminated with K088 wastes.	October 8, 1997
10. Soil and debris contaminated with radioactive wastes mixed with K088, K156-K161, P127, P128, P188-P192, P194, P196-P199, P201-P205, U271, U277-U280, U364-U367, U372, U373, U375-U379, U381-U387, U389-U396, U400-U404, U407, and U409-U411 wastes.	April 8, 1998
11. Soil and debris contaminated with F032, F034, and F035.	May 12, 1997
12. Soil and debris contaminated with newly identified D004-D011 toxicity characteristic wastes and mineral processing wastes.	August 24, 1998
13. Soil and debris contaminated with mixed radioactive newly identified D011 characteristic wastes and mineral processing wastes.	May 26, 2000

BOARD NOTE: These tables are provided for the convenience of the reader.

(Source: Amended at 40 Ill. Reg. 12052, effective August 9, 2016)

**Section 728.APPENDIX H National Capacity LDR Variances for UIC Wastes**

See Note<sup>a</sup>

USEPA Hazardous Waste Number	Waste Category	Effective Date
D001 (except High TOC Ignitable Liquids Subcategory) <sup>c</sup>	All	February 10, 1994
D001 (High TOC Ignitable Characteristic Liquids Subcategory)	Nonwastewater	September 19, 1995
D002 <sup>b</sup>	All	May 8, 1992
D002 <sup>c</sup>	All	February 10, 1994
D003 (cyanides)	All	May 8, 1992
D003 (sulfides)	All	May 8, 1992
D003 (explosives, reactives)	All	May 8, 1992
D007	All	May 8, 1992
D009	Nonwastewater	May 8, 1992
D012	All	September 19, 1995
D013	All	September 19, 1995
D014	All	September 19, 1995
D015	All	September 19, 1995
D016	All	September 19, 1995
D017	All	September 19, 1995
D018	All, including mixed with radioactive wastes	April 8, 1998
D019	All, including mixed with radioactive wastes	April 8, 1998
D020	All, including mixed with radioactive wastes	April 8, 1998
D021	All, including mixed with radioactive wastes	April 8, 1998
D022	All, including mixed with radioactive wastes	April 8, 1998
D023	All, including mixed with radioactive wastes	April 8, 1998
D024	All, including mixed with radioactive wastes	April 8, 1998
D025	All, including mixed with radioactive wastes	April 8, 1998
D026	All, including mixed with radioactive wastes	April 8, 1998
D027	All, including mixed with radioactive wastes	April 8, 1998
D028	All, including mixed with radioactive wastes	April 8, 1998
D029	All, including mixed with radioactive wastes	April 8, 1998



D030	All, including mixed with radioactive wastes	April 8, 1998
D031	All, including mixed with radioactive wastes	April 8, 1998
D032	All, including mixed with radioactive wastes	April 8, 1998
D033	All, including mixed with radioactive wastes	April 8, 1998
D034	All, including mixed with radioactive wastes	April 8, 1998
D035	All, including mixed with radioactive wastes	April 8, 1998
D036	All, including mixed with radioactive wastes	April 8, 1998
D037	All, including mixed with radioactive wastes	April 8, 1998
D038	All, including mixed with radioactive wastes	April 8, 1998
D039	All, including mixed with radioactive wastes	April 8, 1998
D040	All, including mixed with radioactive wastes	April 8, 1998
D041	All, including mixed with radioactive wastes	April 8, 1998
D042	All, including mixed with radioactive wastes	April 8, 1998
D043	All, including mixed with radioactive wastes	April 8, 1998
F001-F005	All spent F001-F005 solvent containing less than 1 percent total F001-F005 solvent constituents	August 8, 1990
F007	All	June 8, 1991
F032	All, including mixed with radioactive wastes	May 12, 1999
F034	All, including mixed with radioactive wastes	May 12, 1999
F035	All, including mixed with radioactive wastes	May 12, 1999
F037	All	November 8, 1992
F038	All	November 8, 1992
F039	Wastewater	May 8, 1992
K009	Wastewater	June 8, 1991
K011	Nonwastewater	June 8, 1991
K011	Wastewater	May 8, 1992
K013	Nonwastewater	June 8, 1991
K013	Wastewater	May 8, 1992
K014	All	May 8, 1992
K016 (dilute)	All	June 8, 1991
K049	All	August 8, 1990
K050	All	August 8, 1990
K051	All	August 8, 1990
K052	All	August 8, 1990
K062	All	August 8, 1990
K071	All	August 8, 1990
K088	All	January 8, 1997
K104	All	August 8, 1990
K107	All	November 8, 1992
K108	All	November 9, 1992
K109	All	November 9, 1992

K110	All	November 9, 1992
K111	All	November 9, 1992
K112	All	November 9, 1992
K117	All	June 30, 1995
K118	All	June 30, 1995
K123	All	November 9, 1992
K124	All	November 9, 1992
K125	All	November 9, 1992
K126	All	November 9, 1992
K131	All	June 30, 1995
K132	All	June 30, 1995
K136	All	November 9, 1992
K141	All	December 19, 1994
K142	All	December 19, 1994
K143	All	December 19, 1994
K144	All	December 19, 1994
K145	All	December 19, 1994
K147	All	December 19, 1994
K148	All	December 19, 1994
K149	All	December 19, 1994
K150	All	December 19, 1994
K151	All	December 19, 1994
K156	All	July 8, 1996
K157	All	July 8, 1996
K158	All	July 8, 1996
K159	All	July 8, 1996
K160	All	July 8, 1996
K161	All	July 8, 1996

NA	Newly identified mineral processing wastes from titanium dioxide production and mixed radioactive/newly identified D004-D011 characteristic wastes and mineral processing wastes	May 26, 2000
P127	All	July 8, 1996
P128	All	July 8, 1996
P185	All	July 8, 1996
P188	All	July 8, 1996
P189	All	July 8, 1996
P190	All	July 8, 1996
P191	All	July 8, 1996
P192	All	July 8, 1996
P194	All	July 8, 1996
P196	All	July 8, 1996
P197	All	July 8, 1996
P198	All	July 8, 1996
P199	All	July 8, 1996
P201	All	July 8, 1996
P202	All	July 8, 1996
P203	All	July 8, 1996
P204	All	July 8, 1996
P205	All	July 8, 1996
U271	All	July 8, 1996
U277	All	July 8, 1996
U278	All	July 8, 1996
U279	All	July 8, 1996
U280	All	July 8, 1996
U328	All	November 9, 1992
U353	All	November 9, 1992
U359	All	November 9, 1992
U364	All	July 8, 1996
U365	All	July 8, 1996
U366	All	July 8, 1996
U367	All	July 8, 1996
U372	All	July 8, 1996
U373	All	July 8, 1996
U375	All	July 8, 1996
U376	All	July 8, 1996
U377	All	July 8, 1996
U378	All	July 8, 1996
U379	All	July 8, 1996
U381	All	July 8, 1996
U382	All	July 8, 1996

U383	All	July 8, 1996
U384	All	July 8, 1996
U385	All	July 8, 1996
U386	All	July 8, 1996
U387	All	July 8, 1996
U389	All	July 8, 1996
U390	All	July 8, 1996
U391	All	July 8, 1996
U392	All	July 8, 1996
U395	All	July 8, 1996
U396	All	July 8, 1996
U400	All	July 8, 1996
U401	All	July 8, 1996
U402	All	July 8, 1996
U403	All	July 8, 1996
U404	All	July 8, 1996
U407	All	July 8, 1996
U409	All	July 8, 1996
U410	All	July 8, 1996
U411	All	July 8, 1996

- <sup>a</sup> Wastes that are deep well disposed on-site receive a six-month variance, with restrictions, effective in November 1990.
- <sup>b</sup> Deep well injected D002 liquids with a pH less than two must meet the California List treatment standards on August 8, 1990.
- <sup>c</sup> Managed in systems defined in 35 Ill. Adm. Code 730.105(e) as Class V injection wells that do not engage in CWA-equivalent treatment before injection.

BOARD NOTE: This table is provided for the convenience of the reader.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

### **Section 728.APPENDIX I EP Toxicity Test Method and Structural Integrity Test**

BOARD NOTE: Method 1310B (Extraction Procedure Toxicity Test) is published in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

### **Section 728.Appendix J Recordkeeping, Notification, and Certification Requirements (Repealed)**

(Source: Repealed at 22 Ill. Reg. 17706, effective September 28, 1998)

**Section 728.APPENDIX K Metal-Bearing Wastes Prohibited from Dilution in a Combustion Unit According to Section 728.103(c)**

BOARD NOTE: A combustion unit is defined as any thermal technology subject to Subpart O of 35 Ill. Adm. Code 724, Subpart O of 35 Ill. Adm. Code 725, or Subpart H of 35 Ill. Adm. Code 726.

USEPA 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 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.
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.
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 $H_3AsO_4$ .
P011	Arsenic oxide $As_2O_5$ .
P012	Arsenic trioxide.
P013	Barium cyanide.
P015	Beryllium.

P029	Copper (I) cyanide $\text{Cu}(\text{CN})$ .
P074	Nickel (II) cyanide $\text{Ni}(\text{CN})_2$ .
P087	Osmium (VIII) tetroxide $\text{OsO}_4$ .
P099	Potassium silver cyanide $\text{KAg}(\text{CN})_2$ .
P104	Silver cyanide $\text{AgCN}$ .
P113	Thallic (III) oxide $\text{Tl}_2\text{O}_3$ .
P114	Thallium (I) selenite $\text{Tl}_2\text{SeO}_3$ .
P115	Thallium (I) sulfate $\text{Tl}_2\text{SO}_4$ .
P119	Ammonium (V) vanadate $\text{NH}_3\text{VO}_3$ .
P120	Vanadium (V) oxide $\text{V}_2\text{O}_5$ .
P121	Zinc cyanide $\text{ZnCN}$ .
U032	Calcium chromate $\text{CaCrO}_4$ .
U145	Lead phosphate.
U151	Mercury.
U204	Selenous acid $\text{H}_2\text{SeO}_3$ .
U205	Selenium (IV) disulfide $\text{SeS}_2$ .
U216	Thallium (I) chloride $\text{TlCl}$ .
U217	Thallium (I) nitrate $\text{TlNO}_3$ .

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

**Section 728.TABLE A Constituent Concentrations in Waste Extract (CCWE)**

For the requirements previously found in this Section and Section 728.141, refer to Section 728.140 and Table T, "Treatment Standards for Hazardous Wastes".

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

## Section 728.TABLE B Constituent Concentrations in Wastes (CCW)

For the requirements previously found in this Section and for treatment standards in Section 728.143, “Constituent Concentrations in Wastes (CCW)”, refer to Section 728.140 and Table T, “Treatment Standards for Hazardous Wastes”.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

## Section 728.TABLE C Technology Codes and Description of Technology-Based Standards

Technology Code	Description of Technology-Based Standard
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 (TOC) 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 so that a surrogate compound or indicator parameter has not undergone breakthrough (e.g., total organic carbon (TOC) 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 or reagents: <ol style="list-style-type: none"><li>1) hypochlorite (e.g., bleach);</li><li>2) chlorine;</li><li>3) chlorine dioxide;</li></ol>



- 4) ozone or UV (ultraviolet light) assisted ozone;
- 5) peroxides;
- 6) persulfates;
- 7) perchlorates;
- 8) permanganates; or
- 9) other oxidizing reagents of equivalent efficiency, performed in units operated so that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., total organic carbon (TOC) can often be used as an indicator parameter for the oxidation of many organic constituents that cannot be directly analyzed in wastewater residues). Chemical oxidation specifically includes what is commonly referred to as alkaline chlorination.

CHRED Chemical reduction utilizing the following reducing reagents (or waste reagents) or combinations of reagents:

- 1) sulfur dioxide;
- 2) sodium, potassium, or alkali salts of 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 (TOX) 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 Subpart O of 35 Ill. Adm. Code 724, Subpart O of 35 Ill. Adm. Code 725, or Subpart H of 35 Ill. Adm. Code 726, 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 federal Nuclear Regulatory Commission.
IMERC	Incineration of wastes containing organics and mercury in units operated in accordance with the technical operating requirements of Subpart O of 35 Ill. Adm. Code 724 or Subpart O of 35 Ill. Adm. Code 725. All wastewater and nonwastewater residues derived from this process must then comply with the corresponding treatment standards per USEPA 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 Subpart O of 35 Ill. Adm. Code 724 or Subpart O of 35 Ill. Adm. Code 725.
LLEXT	Liquid-liquid extraction (often referred to as solvent extraction) of organics from liquid wastes into an immiscible solvent for which the hazardous constituents have a greater solvent affinity, resulting in an extract high in organics that must undergo either incineration, reuse as a fuel, or other recovery or reuse and a raffinate (extracted liquid waste) proportionately low in organics that must undergo further treatment as specified in the standard.
MACRO	Macroencapsulation with surface coating materials such as polymeric organics (e.g., resins and plastics) or with a jacket of inert inorganic materials to substantially reduce surface exposure to potential leaching media. Macroencapsulation specifically does not include any material that would be classified as a tank or container according to 35 Ill. Adm. Code 720.110.
NEUTR	Neutralization with the following reagents (or waste reagents) or combinations of reagents: <ol style="list-style-type: none"> <li>1) acids;</li> <li>2) bases; or</li> <li>3) water (including wastewaters) resulting in a pH greater than two but less than 12.5 as measured in the aqueous residuals.</li> </ol>
NLDBR	No land disposal based on recycling.
POLYM	Formation of complex high-molecular weight solids through polymerization of monomers in high-TOC D001 nonwastewaters that 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 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

Note: this does not preclude the use of other physical phase separation or concentration techniques such as decantation, filtration (including ultrafiltration), and centrifugation, when used in conjunction with the above listed recovery technologies.

RLEAD Thermal recovery of lead in secondary lead smelters.

RMERC Retorting or roasting in a thermal processing unit capable of volatilizing mercury and subsequently condensing the volatilized mercury for recovery. The retorting or roasting unit (or facility) must be subject to one or more of the following:

- a) A federal national emissions standard for hazardous air pollutants (NESHAP) for mercury (subpart E of 40 CFR 61);
- 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 (including 35 Ill. Adm. Code 201 through 203); or
- c) A state permit that establishes emission limitations (within meaning of Section 302 of the Clean Air Act) for mercury, including a permit issued pursuant to 35 Ill. Adm. Code 201. All wastewater and nonwastewater residues derived from this process must then comply with the corresponding treatment standards per USEPA 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)

Note: this does not preclude the use of other physical phase separation or concentration techniques such as decantation, filtration (including ultrafiltration), and centrifugation, when used in conjunction with the above listed recovery technologies.

RORGS Recovery of organics utilizing one or more of the following technologies:

- 1) Distillation;
- 2) thin film evaporation;
- 3) steam stripping;

- 4) carbon adsorption;
- 5) critical fluid extraction;
- 6) liquid-liquid extraction;
- 7) precipitation or crystallization (including freeze crystallization); or
- 8) chemical phase separation techniques (i.e., addition of acids, bases, demulsifiers, or similar chemicals).

Note: This does not preclude the use of other physical phase separation techniques such as 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 defined as cement kilns, blast furnaces, smelting, melting and refining furnaces, combustion devices used to recover sulfur values from spent sulfuric acid and “other devices” determined by the Agency pursuant to 35 Ill. Adm. Code 720.110, the definition of “industrial furnace”.
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: <ol style="list-style-type: none"> <li>1) Portland cement; or</li> <li>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 or cure time or compressive strength, or to overall reduce the leachability of the metal or inorganic.</li> </ol>
SSTRP	Steam stripping of organics from liquid wastes utilizing direct application of steam to the wastes operated such that liquid and vapor flow rates, as well as temperature and pressure ranges, have been optimized, monitored, and maintained. These operating parameters are dependent upon the design parameters of the unit, such as, the number of separation stages and the internal column design. Thus resulting in a condensed extract high in organics that must undergo either incineration, reuse as a fuel, or other recovery or reuse and an extracted wastewater that must undergo further treatment as specified in the standard.
WETOX	Wet air oxidation performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., total organic carbon (TOC) 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.

Note 1: When a combination of these technologies (i.e., a treatment train) is specified as a single treatment standard, the order of application is specified in Table T by indicating the five letter technology code that must be applied first, then the designation “fb.” (an abbreviation for “followed by”), then the five letter technology code for the technology that must be applied next, and so on.

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

BOARD NOTE: Derived from Table 1 in 40 CFR 268.42 (2017).

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

#### **Section 728.TABLE D Technology-Based Standards by USEPA Hazardous Waste Number**

BOARD NOTE: For the requirements previously found in this Section, refer to Section 728.140 and Table T.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

#### **Section 728.TABLE E Standards for Radioactive Mixed Waste**

BOARD NOTE: For the requirements previously found in this Section, refer to Section 728.140 and Table T.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

#### **Section 728.TABLE F Alternative Treatment Standards For Hazardous Debris**

- a) Hazardous debris must be treated by either the standards indicated in this Table F or by 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.

- b) Definitions. For the purposes of this Table F, the following terms are defined as follows:

“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 percent of each square inch of surface area.

“Contaminant restriction” means that the technology is not BDAT for that contaminant. If debris containing a restricted contaminant is treated by the technology, the contaminant must be subsequently treated by a technology for which it is not restricted in order to be land disposed (and excluded from Subtitle C regulation).

“Dioxin-listed wastes” means wastes having any of USEPA hazardous waste numbers FO20, FO21, FO22, FO23, FO26, or FO27.

- c) Notes. In this Table F, the following text is to be read in conjunction with the tabulated text where the appropriate notations appear:

<sup>1</sup> 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.

<sup>2</sup> If reducing the particle size of debris to meet the treatment standards results in material that no longer meets the 60 mm minimum particle size limit for debris, such material is subject to the waste-specific treatment standards for the waste contaminating the material, unless the debris has been cleaned and separated from contaminated soil and waste prior to size reduction. At a minimum, simple physical or mechanical means must be used to provide such cleaning and separation of nondebris materials to ensure that the debris surface is free of caked soil, waste, or other nondebris material.

<sup>3</sup> 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.

<sup>4</sup> The demonstration of “equivalent technology” pursuant to Section 728.142(b) must document that the technology treats contaminants subject to treatment to a level equivalent to that required by the performance and design and operating standards for other technologies in this table such that residual levels of hazardous contaminants will not pose a hazard to human health and the environment absent management controls.

<sup>5</sup> 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 subsection (b) 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.

Technology Description	Performance or Design and Operating Standard	Contaminant Restrictions
A. Extraction Technologies		
1. Physical Extraction		
a. Abrasive Blasting: Removal of contaminated debris surface layers using water 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. Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Removal of at least 0.6 cm of the surface layer; treatment to a clean debris surface.	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 that exerts a force on the sides of those holes	Same as above	Same as above



such that the surface layer is removed. The surface layer removed remains hazardous debris subject to the debris treatment standards.

d. Vibratory Finishing: Process utilizing scrubbing media, flushing fluid, and oscillating energy such that hazardous contaminants or contaminated debris surface layers are removed. <sup>1</sup>	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. Chemical Extraction

a. Water Washing and Spraying: Application of water sprays or water baths of sufficient temperature, pressure, residence time, agitation, surfactants, acids, bases, and detergents to remove hazardous contaminants from debris surfaces and surface pores or to remove contaminated debris surface layers.	All Debris: Treatment to a clean debris surface; Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Debris must be no more than 1.2 cm (½ inch) in one dimension (i.e., thickness limit, <sup>2</sup> except that this thickness limit may be waived under an “Equivalent Technology” approval pursuant to Section 728.142(b); <sup>4</sup> debris surfaces must be in contact with water solution for at least 15 minutes	Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Contaminant must be soluble to at least five percent by weight in water solution or five percent by weight in emulsion; if debris is contaminated with a dioxin-listed waste, <sup>3</sup> an “Equivalent Technology” approval pursuant to Section 728.142(b) must be obtained. <sup>4</sup>
--	--	---

b. Liquid Phase Solvent Extraction: Removal of hazardous contaminants from debris surfaces and surface	Same as above	Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Same as above, except that contaminant must be soluble to
--	---------------	--

pores by applying a nonaqueous liquid or liquid solution that 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.<sup>1</sup>

at least five percent 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.<sup>1</sup>

Same as above, except that brick, cloth, concrete, paper, pavement, rock and wood surfaces must be in contact with the organic vapor for at least 60 minutes.

Same as above.

### 3. Thermal Extraction

a. High Temperature Metals Recovery: Application of sufficient heat, residence time, mixing, fluxing agents, 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,<sup>5</sup> 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:<sup>2</sup> Obtain an “Equivalent Technology” approval pursuant to Section 728.142(b).<sup>4</sup>

b. Thermal Desorption: Heating in an enclosed chamber under either oxidizing or nonoxidizing atmospheres at sufficient temperature and residence time to vaporize hazardous contaminants from contaminated surfaces and surface pores and to remove the contaminants from the heating

All Debris: Obtain an “Equivalent Technology” approval pursuant to Section 728.142(b);<sup>4</sup> treated debris must be separated from treatment residuals using simple physical or mechanical means,<sup>5</sup> and, prior to further treatment, such residue must meet the waste-specific treatment standards for

All Debris: Metals other than mercury.

chamber in a gaseous exhaust gas.<sup>3</sup>

organic compounds in the waste contaminating the debris.  
Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Debris must be no more than 10 cm (4 inches) in one dimension (i.e., thickness limit),<sup>2</sup> except that this thickness limit may be waived under the “Equivalent Technology” approval

## B. Destruction Technologies

1. Biological Destruction (Biodegradation): Removal of hazardous contaminants from debris surfaces and surface pores in an aqueous solution and biodegradation of organic or nonmetallic inorganic compounds (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 pursuant to Section 728.142(b);<sup>4</sup> treated debris must be separated from treatment residuals using simple physical or mechanical means,<sup>5</sup> 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, Wood: Debris must be no more than 1.2 cm (½ inch) in one dimension (i.e., thickness limit),<sup>2</sup> except that this thickness limit may be waived under the “Equivalent Technology” approval

All Debris: Metal contaminants.

## 2. Chemical Destruction

a. Chemical Oxidation: Chemical or electrolytic oxidation utilizing the following oxidation reagents (or waste reagents) or combination of reagents: (1) hypochlorite (e.g., bleach); (2) chlorine; (3) chlorine dioxide; (4) ozone or UV (ultraviolet light) assisted ozone; (5) peroxides; (6)

All Debris: Obtain an “Equivalent Technology” approval pursuant to 35 Ill. Adm. Code.142(b);<sup>4</sup> treated debris must be separated from treatment residuals using simple physical or mechanical means,<sup>5</sup> and, prior to further treatment, such residue must meet the waste-specific treatment

All Debris: Metal contaminants.

persulfates; (7) perchlorates; (8) permanganates; or (9) other oxidizing reagents of equivalent destruction efficiency.<sup>1</sup> Chemical oxidation specifically includes what is referred to as alkaline chlorination.

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 (½ inch) in one dimension (i.e., thickness limit),<sup>2</sup> except that this thickness limit may be waived under the “Equivalent Technology” approval

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; or (5) other reducing reagents of equivalent efficiency.<sup>1</sup>

Same as above

Same as above.

3. Thermal Destruction:  
Treatment in an incinerator operating in accordance with Subpart O of 35 Ill. Adm. Code 724 or Subpart O of 35 Ill. Adm. Code 725; a boiler or industrial furnace operating in accordance with Subpart H of 35 Ill. Adm. Code 726, or other thermal treatment unit operated in accordance with Subpart X of 35 Ill. Adm. Code 724, or Subpart P of 35 Ill. Adm. Code 725, 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,<sup>5</sup> and, prior to further treatment, such residue 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.<sup>3</sup> Obtain an “Equivalent Technology” approval pursuant to Section 728.142(b),<sup>4</sup> except that this requirement does not apply to vitrification.

### C. Immobilization Technologies

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

BOARD NOTE: Derived from Table 1 to 40 CFR 268.45 (2017).

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

**Section 728.TABLE G Alternative Treatment Standards Based on HTMR**

For the treatment standards previously found in this Section and Section 728.146, refer to Section 728.140 and Table T, “Treatment Standards for Hazardous Wastes”.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

**Section 728.TABLE H Wastes Excluded from CCW Treatment Standards**

The following facilities are excluded from the treatment standard under Section 728.143(a) and Table B, and are subject to the following constituent concentrations. These facilities have received a treatability exception by regulatory action from USEPA pursuant to 40 CFR 268.44, and have demonstrated that the Board needs to adopt the treatability exception as part of the Illinois RCRA program. The Board may also grant an “adjusted treatment standard” pursuant to Section 728.144.

Facility Name and Address	USEPA Hazardous Waste Number	See Also	Regulated Hazardous Constituent	Wastewaters Concentration (mg/ℓ)	Notes	Nonwastewaters Concentration (mg/kg)	Notes
Craftsman Plating and Tinning Corp., Chicago, IL	F006	Section 728.140	Cyanides (Total)	1.2	B	1,800	D
			Cyanides (amenable)	0.86	B and C	30	D
			Cadmium	1.6		NA	
			Chromium	0.32		NA	
			Lead	0.40		NA	
Northwestern Plating Works, Inc., Chicago, IL	F006	Section 728.140	Cyanides (Total)	1.2	B	970	D
			Cyanides (amenable)	0.86	B and C	30	D
			Cadmium	1.6		NA	
			Chromium	0.32		NA	
			Lead	0.40		NA	
			Nickel	0.44		NA	

Notes:

- A An owner or operator may certify compliance with these treatment standards according to the provisions of Section 728.107.
- B Cyanide wastewater standards for F006 are based on analysis of composite samples.
- C These owners and operators must comply with 0.86 mg/ℓ for amenable cyanides in the wastewater exiting the alkaline chlorination system. These owners and operators must also comply with Section 728.107(a)(4) for appropriate monitoring frequency consistent with the facilities' waste analysis plan.
- D Cyanide nonwastewaters are analyzed using Method 9010C (Total and Amenable Cyanide: Distillation) or 9012B (Total and Amenable Cyanide (Automated Colorimetric, with Off-Line Distillation)) in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(b), with a sample size 10 g, distillation time one hour and fifteen minutes.
- NA Not applicable.

BOARD NOTE: Derived from table to 40 CFR 268.44(o) (2017).

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

**Section 728.TABLE I Generator Paperwork Requirements**

Required Information	Subsection of Section 728.107 under Which the Paperwork is Required:			
	(a)(2)	(a)(3)	(a)(4)	(a)(9)
1. USEPA hazardous waste numbers and manifest number of first shipment	✓	✓	✓	✓
2. Statement: this waste is not prohibited from land disposal			✓	
3. The waste is subject to the LDRs. The constituents of concern for USEPA hazardous waste numbers F001 through F005 and F039 waste, and underlying hazardous constituents in characteristic waste, unless the waste will be treated and monitored for all constituents. If all constituents will be treated and monitored, there is no need to put them all on the LDR notice	✓	✓		

4. The notice must include the applicable wastewater/ nonwastewater category (see Section 728.102(d) and (f)) and subdivisions made within a USEPA hazardous waste number based on waste-specific criteria (such as D003 reactive cyanide)	✓	✓	
5. Waste analysis data (when available)	✓	✓	✓
6. Date the waste is subject to the prohibition			✓
7. For hazardous debris, when treating with the alternative treatment technologies provided by Section 728.145: the contaminants subject to treatment, as described in Section 728.145(b); and an indication that these contaminants are being treated to comply with Section 728.145	✓		✓
8. For contaminated soil subject to LDRs as provided in Section 728.149(a), the constituents subject to treatment as described in Section 728.149(d), and the following statement: This contaminated soil (does/does not) contain listed hazardous waste and (does/does not) exhibit a characteristic of hazardous waste and (is subject to/complies with) the soil treatment standards as provided by Section 728.149(c) or the universal treatment standards	✓	✓	
9. A certification is needed (see applicable subsection for exact wording)		✓	✓

BOARD NOTE: Derived from Table 1 to 40 CFR 268.7(a)(4) (2017).

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)

**Section 728.TABLE T Treatment Standards for Hazardous Wastes**

Note: The treatment standards that formerly appeared in tables in Sections 728.141, 728.142, and 728.143 have been consolidated into this table.

USEPA Hazardous Waste Number		
Waste Description and Treatment or Regulatory Subcategory <sup>1</sup>		
Regulated Hazardous Constituent	Wastewaters	Nonwastewaters



Common Name	CAS <sup>2</sup> Number	Concentration <sup>3</sup> in mg/ℓ; or Technology Code <sup>4</sup>	Concentration <sup>5</sup> in mg/kg unless noted as “mg/ℓ TCLP”; or Technology Code <sup>4</sup>
D001 <sup>9</sup> Ignitable Characteristic Wastes, except for the 35 Ill. Adm. Code 721.121(a)(1) High TOC Subcategory.			
NA	NA	DEACT and meet Section 728.148 standards <sup>8</sup> ; or RORGS; or CMBST	DEACT and meet Section 728.148 standards <sup>8</sup> ; or RORGS; or CMBST
D001 <sup>9</sup> High TOC Ignitable Characteristic Liquids Subcategory based on 35 Ill. Adm. Code 721.121(a)(1)—Greater than or equal to 10 percent total organic carbon. (Note: This subcategory consists of nonwastewaters only.)			
NA	NA	NA	RORGS; CMBST; or POLYM
D002 <sup>9</sup> Corrosive Characteristic Wastes.			
NA	NA	DEACT and meet Section 728.148 standards <sup>8</sup>	DEACT and meet Section 728.148 standards <sup>8</sup>
D002, D004, D005, D006, D007, D008, D009, D010, D011 Radioactive high level wastes generated during the reprocessing of fuel rods. (Note: This subcategory consists of nonwastewaters only.)			
Corrosivity (pH)	NA	NA	HLVIT
Arsenic	7440-38-2	NA	HLVIT
Barium	7440-39-3	NA	HLVIT
Cadmium	7440-43-9	NA	HLVIT
Chromium (Total)	7440-47-3	NA	HLVIT
Lead	7439-92-1	NA	HLVIT
Mercury	7439-97-6	NA	HLVIT
Selenium	7782-49-2	NA	HLVIT
Silver	7440-22-4	NA	HLVIT
D003 <sup>9</sup> Reactive Sulfides Subcategory based on 35 Ill. Adm. Code 721.123(a)(5).			
NA	NA	DEACT	DEACT

D003<sup>9</sup>

Explosive subcategory based on 35 Ill. Adm. Code 721.123(a)(6), (a)(7), and (a)(8).

NA	NA	DEACT and meet Section 728.148 standards <sup>8</sup>	DEACT and meet Section 728.148 standards <sup>8</sup>
----	----	---	---

D003<sup>9</sup>

Unexploded ordnance and other explosive devices that have been the subject of an emergency response.

NA	NA	DEACT	DEACT
----	----	-------	-------

D003<sup>9</sup>

Other Reactives Subcategory based on 35 Ill. Adm. Code 721.123(a)(1).

NA	NA	DEACT and meet Section 728.148 standards <sup>8</sup>	DEACT and meet Section 728.148 standards <sup>8</sup>
----	----	---	---

D003<sup>9</sup>

Water Reactive Subcategory based on 35 Ill. Adm. Code 721.123(a)(2), (a)(3), and (a)(4).

(Note: This subcategory consists of nonwastewaters only.)

NA	NA	NA	DEACT and meet Section 728.148 standards <sup>8</sup>
----	----	----	---

D003<sup>9</sup>

Reactive Cyanides Subcategory based on 35 Ill. Adm. Code 721.123(a)(5).

Cyanides (Total) <sup>7</sup>	57-12-5	—	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30

D004<sup>9</sup>

Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for arsenic based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

Arsenic	7440-38-2	1.4 and meet Section 728.148 standards <sup>8</sup>	5.0 mg/ℓ TCLP and meet Section 728.148 standards <sup>8</sup>
---------	-----------	---	---

D005<sup>9</sup>

Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for barium based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

Barium	7440-39-3	1.2 and meet Section 728.148 standards <sup>8</sup>	21 mg/ℓ TCLP and meet Section 728.148 standards <sup>8</sup>
--------	-----------	---	--

D006<sup>9</sup>

Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for cadmium based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

Cadmium	7440-43-9	0.69 and meet Section 728.148 standards <sup>8</sup>	0.11 mg/l TCLP and meet Section 728.148 standards <sup>8</sup>
---------	-----------	--	--

D006<sup>9</sup>

Cadmium-Containing Batteries Subcategory.

(Note: This subcategory consists of nonwastewaters only.)

Cadmium	7440-43-9	NA	RTHRM
---------	-----------	----	-------

D006<sup>9</sup>

Radioactively contaminated cadmium-containing batteries.

(Note: This subcategory consists of nonwastewaters only.)

Cadmium	7440-43-9	NA	Macroencapsulation in accordance with Section 728.145
---------	-----------	----	---

D007<sup>9</sup>

Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for chromium based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

Chromium (Total)	7440-47-3	2.77 and meet Section 728.148 standards <sup>8</sup>	0.60 mg/l TCLP and meet Section 728.148 standards <sup>8</sup>
------------------	-----------	--	--

D008<sup>9</sup>

Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for lead based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

Lead	7439-92-1	0.69 and meet Section 728.148 standards <sup>8</sup>	0.75 mg/l TCLP and meet Section 728.148 standards <sup>8</sup>
------	-----------	--	--

D008<sup>9</sup>

Lead Acid Batteries Subcategory

(Note: This standard only applies to lead acid batteries that are identified as RCRA hazardous wastes and that are not excluded elsewhere from regulation under the land disposal restrictions of this Part or exempted under other regulations (see 35 Ill. Adm. Code 726.180). This subcategory consists of nonwastewaters only.)

Lead	7439-92-1	NA	RLEAD
------	-----------	----	-------

D008<sup>9</sup>

Radioactive Lead Solids Subcategory

(Note: These lead solids include, but are not limited to, all forms of lead shielding and other elemental forms of lead. These lead solids do not include treatment residuals such as hydroxide sludges, other wastewater treatment residuals, or incinerator ashes that can undergo conventional pozzolanic stabilization, nor do they include organo-lead materials that can be incinerated and stabilized as ash. This subcategory consists of nonwastewaters only.)

Lead	7439-92-1	NA	MACRO
------	-----------	----	-------

D009<sup>9</sup>

Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a); and contain greater than or equal to 260 mg/kg total mercury that also contain organics and are not incinerator residues. (High Mercury-Organic Subcategory)

Mercury	7439-97-6	NA	IMERC; or RMERC
---------	-----------	----	--------------------

D009<sup>9</sup>

Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a); and contain greater than or equal to 260 mg/kg total mercury that are inorganic, including incinerator residues and residues from RMERC. (High Mercury-Inorganic Subcategory)

Mercury	7439-97-6	NA	RMERC
---------	-----------	----	-------

D009<sup>9</sup>

Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a); and contain less than 260 mg/kg total mercury. (Low Mercury Subcategory)

Mercury	7439-97-6	NA	0.20 mg/l TCLP and meet Section 728.148 standards <sup>8</sup>
---------	-----------	----	--

D009<sup>9</sup>

All other nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a); and contain less

than 260 mg/kg total mercury and that are not residues from RMERC. (Low Mercury Subcategory)

Mercury	7439-97-6	NA	0.025 mg/ℓ TCLP and meet Section 728.148 standards <sup>8</sup>
D009 <sup>9</sup> All D009 wastewaters.			
Mercury	7439-97-6	0.15 and meet Section 728.148 standards <sup>8</sup>	NA
D009 <sup>9</sup> Elemental mercury contaminated with radioactive materials. (Note: This subcategory consists of nonwastewaters only.)			
Mercury	7439-97-6	NA	AMLGM
D009 <sup>9</sup> Hydraulic oil contaminated with Mercury Radioactive Materials Subcategory. (Note: This subcategory consists of nonwastewaters only.)			
Mercury	7439-97-6	NA	IMERC
D009 <sup>9</sup> Radioactively contaminated mercury-containing batteries. (Note: This subcategory consists of nonwastewaters only.)			
Mercury	7439-97-6	NA	Macroencapsulation in accordance with Section 728.145
D010 <sup>9</sup> Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for selenium based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).			
Selenium	7782-49-2	0.82 and meet Section 728.148 standards <sup>8</sup>	5.7 mg/ℓ TCLP and meet Section 728.148 standards <sup>8</sup>
D011 <sup>9</sup> Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for silver based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).			
Silver	7440-22-4	0.43	0.14 mg/ℓ TCLP and meet Section 728.148 standards <sup>8</sup>

D011<sup>9</sup>

Radioactively contaminated silver-containing batteries.

(Note: This subcategory consists of nonwastewaters only.)

Silver	7440-22-4	NA	Macroencapsulation in accordance with Section 728.145
--------	-----------	----	---

D012<sup>9</sup>

Wastes that are TC for endrin based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

Endrin	72-20-8	BIODG; or CMBST	0.13 and meet Section 728.148 standards <sup>8</sup>
Endrin aldehyde	7421-93-4	BIODG; or CMBST	0.13 and meet Section 728.148 standards <sup>8</sup>

D013<sup>9</sup>

Wastes that are TC for lindane based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

$\alpha$ -BHC	319-84-6	CARBN; or CMBST	0.066 and meet Section 728.148 standards <sup>8</sup>
$\beta$ -BHC	319-85-7	CARBN; or CMBST	0.066 and meet Section 728.148 standards <sup>8</sup>
$\delta$ -BHC	319-86-8	CARBN; or CMBST	0.066 and meet Section 728.148 standards <sup>8</sup>
$\gamma$ -BHC (Lindane)	58-89-9	CARBN; or CMBST	0.066 and meet Section 728.148 standards <sup>8</sup>

D014<sup>9</sup>

Wastes that are TC for methoxychlor based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

Methoxychlor	72-43-5	WETOX or CMBST	0.18 and meet Section 728.148 standards <sup>8</sup>
--------------	---------	-------------------	--

D015<sup>9</sup>

Wastes that are TC for toxaphene based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

Toxaphene	8001-35-2	BIODG or CMBST	2.6 and meet Section 728.148 standards <sup>8</sup>
-----------	-----------	-------------------	---

D016<sup>9</sup>

Wastes that are TC for 2,4-D (2,4-dichlorophenoxyacetic acid) based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

2,4-D (2,4-dichlorophenoxy- acetic acid)	94-75-7	CHOXD; BIODG; or CMBST	10 and meet Section 728.148 standards <sup>8</sup>
---	---------	---------------------------	--

D017<sup>9</sup>

Wastes that are TC for 2,4,5-TP (Silvex) based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

2,4,5-TP (Silvex)	93-72-1	CHOXD or CMBST	7.9 and meet Section 728.148 standards <sup>8</sup>
-------------------	---------	-------------------	---

D018<sup>9</sup>

Wastes that are TC for benzene based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

Benzene	71-43-2	0.14 and meet Section 728.148 standards <sup>8</sup>	10 and meet Section 728.148 standards <sup>8</sup>
---------	---------	--	--

D019<sup>9</sup>

Wastes that are TC for carbon tetrachloride based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

Carbon tetrachloride	56-23-5	0.057 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>
----------------------	---------	---	---

D020<sup>9</sup>

Wastes that are TC for chlordane based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

Chlordane ( $\alpha$ and $\chi$ isomers)	57-74-9	0.0033 and meet Section 728.148 standards <sup>8</sup>	0.26 and meet Section 728.148 standards <sup>8</sup>
--	---------	--	--

D021<sup>9</sup>

Wastes that are TC for chlorobenzene based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

Chlorobenzene	108-90-7	0.057 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>
---------------	----------	---	---

D022<sup>9</sup>

Wastes that are TC for chloroform based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

Chloroform	67-66-3	0.046 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>
------------	---------	---	---

D023<sup>9</sup>

Wastes that are TC for o-cresol based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

o-Cresol	95-48-7	0.11 and meet Section 728.148 standards <sup>8</sup>	5.6 and meet Section 728.148 standards <sup>8</sup>
----------	---------	--	---

D024<sup>9</sup>

Wastes that are TC for m-cresol based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77 and meet Section 728.148 standards <sup>8</sup>	5.6 and meet Section 728.148 standards <sup>8</sup>
--	----------	--	---



D025<sup>9</sup>

Wastes that are TC for p-cresol based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77 and meet Section 728.148 standards <sup>8</sup>	5.6 and meet Section 728.148 standards <sup>8</sup>
--	----------	--	---

D026<sup>9</sup>

Wastes that are TC for cresols (total) based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)	1319-77-3	0.88 and meet Section 728.148 standards <sup>8</sup>	11.2 and meet Section 728.148 standards <sup>8</sup>
--	-----------	--	--

D027<sup>9</sup>

Wastes that are TC for p-dichlorobenzene based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	0.090 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>
---	----------	---	---

D028<sup>9</sup>

Wastes that are TC for 1,2-dichloroethane based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

1,2-Dichloroethane	107-06-2	0.21 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>
--------------------	----------	--	---

D029<sup>9</sup>

Wastes that are TC for 1,1-dichloroethylene based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

1,1-Dichloroethylene	75-35-4	0.025 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>
----------------------	---------	---	---

D030<sup>9</sup>

Wastes that are TC for 2,4-dinitrotoluene based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

2,4-Dinitrotoluene	121-14-2	0.32 and meet Section 728.148 standards <sup>8</sup>	140 and meet Section 728.148 standards <sup>8</sup>
--------------------	----------	--	---

D031<sup>9</sup>

Wastes that are TC for heptachlor based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

Heptachlor	76-44-8	0.0012 and meet Section 728.148 standards <sup>8</sup>	0.066 and meet Section 728.148 standards <sup>8</sup>
Heptachlor epoxide	1024-57-3	0.016 and meet Section 728.148 standards <sup>8</sup>	0.066 and meet Section 728.148 standards <sup>8</sup>

D032<sup>9</sup>

Wastes that are TC for hexachlorobenzene based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

Hexachlorobenzene	118-74-1	0.055 and meet Section 728.148 standards <sup>8</sup>	10 and meet Section 728.148 standards <sup>8</sup>
-------------------	----------	---	--

D033<sup>9</sup>

Wastes that are TC for hexachlorobutadiene based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

Hexachlorobutadiene	87-68-3	0.055 and meet Section 728.148 standards <sup>8</sup>	5.6 and meet Section 728.148 standards <sup>8</sup>
---------------------	---------	---	---

D034<sup>9</sup>

Wastes that are TC for hexachloroethane based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

Hexachloroethane	67-72-1	0.055 and meet Section 728.148 standards <sup>8</sup>	30 and meet Section 728.148 standards <sup>8</sup>
------------------	---------	---	--

D035<sup>9</sup>

Wastes that are TC for methyl ethyl ketone based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

Methyl ethyl ketone	78-93-3	0.28 and meet Section 728.148 standards <sup>8</sup>	36 and meet Section 728.148 standards <sup>8</sup>
---------------------	---------	--	--

D036<sup>9</sup>

Wastes that are TC for nitrobenzene based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

Nitrobenzene	98-95-3	0.068 and meet Section 728.148 standards <sup>8</sup>	14 and meet Section 728.148 standards <sup>8</sup>
--------------	---------	---	--

D037<sup>9</sup>

Wastes that are TC for pentachlorophenol based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

Pentachlorophenol	87-86-5	0.089 and meet Section 728.148 standards <sup>8</sup>	7.4 and meet Section 728.148 standards <sup>8</sup>
-------------------	---------	---	---

D038<sup>9</sup>

Wastes that are TC for pyridine based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

Pyridine	110-86-1	0.014 and meet Section 728.148 standards <sup>8</sup>	16 and meet Section 728.148 standards <sup>8</sup>
----------	----------	---	--

D039<sup>9</sup>

Wastes that are TC for tetrachloroethylene based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

Tetrachloroethylene	127-18-4	0.056 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>
---------------------	----------	---	---

D040<sup>9</sup>

Wastes that are TC for trichloroethylene based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

Trichloroethylene	79-01-6	0.054 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>
-------------------	---------	---	---

D041<sup>9</sup>

Wastes that are TC for 2,4,5-trichlorophenol based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

2,4,5-Trichlorophenol	95-95-4	0.18 and meet Section 728.148 standards <sup>8</sup>	7.4 and meet Section 728.148 standards <sup>8</sup>
-----------------------	---------	--	---

D042<sup>9</sup>

Wastes that are TC for 2,4,6-trichlorophenol based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

2,4,6-Trichlorophenol	88-06-2	0.035 and meet Section 728.148 standards <sup>8</sup>	7.4 and meet Section 728.148 standards <sup>8</sup>
-----------------------	---------	---	---

D043<sup>9</sup>

Wastes that are TC for vinyl chloride based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

Vinyl chloride	75-01-4	0.27 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>
----------------	---------	--	---

F001, F002, F003, F004 & F005

F001, F002, F003, F004, or F005 solvent wastes that contain any combination of one or more of the following spent solvents: acetone, benzene, n-butyl alcohol, carbon disulfide, carbon tetrachloride, chlorinated fluorocarbons, chlorobenzene, o-cresol, m-cresol, p-cresol, cyclohexanone, o-dichlorobenzene, 2-ethoxyethanol, ethyl acetate, ethyl benzene, ethyl ether, isobutyl alcohol, methanol, methylene chloride, methyl ethyl ketone, methyl isobutyl ketone, nitrobenzene, 2-nitropropane, pyridine, tetrachloroethylene, toluene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,1,2-trichloro-1,2,2-trifluoroethane, trichloroethylene, trichloromonofluoromethane, or xylenes (except as specifically noted in other subcategories). See further details of these listings in 35 Ill. Adm. Code 721.131.

Acetone	67-64-1	0.28	160
---------	---------	------	-----

Benzene	71-43-2	0.14	10
n-Butyl alcohol	71-36-3	5.6	2.6
Carbon disulfide	75-15-0	3.8	NA
Carbon tetrachloride	56-23-5	0.057	6.0
Chlorobenzene	108-90-7	0.057	6.0
o-Cresol	95-48-7	0.11	5.6
m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
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
Cyclohexanone	108-94-1	0.36	NA
o-Dichlorobenzene	95-50-1	0.088	6.0
Ethyl acetate	141-78-6	0.34	33
Ethyl benzene	100-41-4	0.057	10
Ethyl ether	60-29-7	0.12	160
Isobutyl alcohol	78-83-1	5.6	170
Methanol	67-56-1	5.6	NA
Methylene chloride	75-9-2	0.089	30
Methyl ethyl ketone	78-93-3	0.28	36
Methyl isobutyl ketone	108-10-1	0.14	33
Nitrobenzene	98-95-3	0.068	14
Pyridine	110-86-1	0.014	16
Tetrachloroethylene	127-18-4	0.056	6.0
Toluene	108-88-3	0.080	10
1,1,1-Trichloroethane	71-55-6	0.054	6.0
1,1,2-Trichloroethane	79-00-5	0.054	6.0
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.057	30
Trichloroethylene	79-01-6	0.054	6.0
Trichloromonofluoromethane	75-69-4	0.020	30
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30

#### F001, F002, F003, F004 & F005

F003 and F005 solvent wastes that contain any combination of one or more of the following three solvents as the only listed F001 through F005 solvents: carbon disulfide, cyclohexanone, or methanol. (Formerly Section 728.141(c)).

Carbon disulfide	75-15-0	3.8	4.8 mg/l TCLP
Cyclohexanone	108-94-1	0.36	0.75 mg/l TCLP
Methanol	67-56-1	5.6	0.75 mg/l TCLP

F001, F002, F003, F004 & F005

F005 solvent waste containing 2-Nitropropane as the only listed F001 through F005 solvent.

2-Nitropropane	79-46-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
----------------	---------	--	-------

F001, F002, F003, F004 & F005

F005 solvent waste containing 2-Ethoxyethanol as the only listed F001 through F005 solvent.

2-Ethoxyethanol	110-80-5	BIODG; or CMBST	CMBST
-----------------	----------	--------------------	-------

F006

Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning or stripping associated with tin, zinc, and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.

Cadmium	7440-43-9	0.69	0.11 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30
Lead	7439-92-1	0.69	0.75 mg/l TCLP
Nickel	7440-02-0	3.98	11 mg/l TCLP
Silver	7440-22-4	NA	0.14 mg/l TCLP

F007

Spent cyanide plating bath solutions from electroplating operations.

Cadmium	7440-43-9	NA	0.11 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30
Lead	7439-92-1	0.69	0.75 mg/l TCLP
Nickel	7440-02-0	3.98	11 mg/l TCLP
Silver	7440-22-4	NA	0.14 mg/l TCLP

F008

Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.

Cadmium	7440-43-9	NA	0.11 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30
Lead	7439-92-1	0.69	0.75 mg/l TCLP
Nickel	7440-02-0	3.98	11 mg/l TCLP
Silver	7440-22-4	NA	0.14 mg/l TCLP

F009

Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.

Cadmium	7440-43-9	NA	0.11 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30
Lead	7439-92-1	0.69	0.75 mg/l TCLP
Nickel	7440-02-0	3.98	11 mg/l TCLP
Silver	7440-22-4	NA	0.14 mg/l TCLP

F010

Quenching bath residues from oil baths from metal heat-treating operations where cyanides are used in the process.

Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	NA

F011

Spent cyanide solutions from salt bath pot cleaning from metal heat-treating operations.

Cadmium	7440-43-9	NA	0.11 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30
Lead	7439-92-1	0.69	0.75 mg/l TCLP
Nickel	7440-02-0	3.98	11 mg/l TCLP
Silver	7440-22-4	NA	0.14 mg/l TCLP

F012

Quenching wastewater treatment sludges from metal heat-treating operations where cyanides are used in the process.

Cadmium	7440-43-9	NA	0.11 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30
Lead	7439-92-1	0.69	0.75 mg/l TCLP
Nickel	7440-02-0	3.98	11 mg/l TCLP
Silver	7440-22-4	NA	0.14 mg/l TCLP

F019

Wastewater treatment sludges from the chemical conversion coating of aluminum, except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process.

Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30

F020, F021, F022, F023, F026

Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of: (1) tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives, excluding wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol (i.e., F020); (2) pentachlorophenol, or of intermediates used to produce its derivatives (i.e., F021); (3) tetra-, penta-, or hexachlorobenzenes under alkaline conditions (i.e., F022) and wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of: (1) tri- or tetrachlorophenols, excluding wastes from equipment used only for the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol (F023) or (2) tetra-, penta-, or hexachlorobenzenes under alkaline conditions (i.e., F026).

HxCDDs (All Hexachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachloro-dibenzofurans)	55684-94-1	0.000063	0.001
PeCDDs (All Pentachloro-dibenzo-p-dioxins)	36088-22-9	0.000063	0.001
PeCDFs (All Pentachloro-dibenzofurans)	30402-15-4	0.000035	0.001
Pentachlorophenol	87-86-5	0.089	7.4
TCDDs (All Tetrachloro-dibenzo-p-dioxins)	41903-57-5	0.000063	0.001
TCDFs (All Tetrachloro-dibenzofurans)	55722-27-5	0.000063	0.001
2,4,5-Trichlorophenol	95-95-4	0.18	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4

F024

Process wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in 35 Ill. Adm. Code 721.131 or 721.132.)

All F024 wastes	NA	CMBST <sup>11</sup>	CMBST <sup>11</sup>
2-Chloro-1,3-butadiene	126-99-8	0.057	0.28
3-Chloropropylene	107-05-1	0.036	30
1,1-Dichloroethane	75-34-3	0.059	6.0
1,2-Dichloroethane	107-06-2	0.21	6.0
1,2-Dichloropropane	78-87-5	0.85	18
cis-1,3-Dichloropropylene	10061-01-5	0.036	18
trans-1,3-Dichloropropylene	10061-02-6	0.036	18
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Hexachloroethane	67-72-1	0.055	30



Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Nickel	7440-02-0	3.98	11 mg/l TCLP

#### F025

Condensed light ends from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one up to and including five, with varying amounts and positions of chlorine substitution. F025—Light Ends Subcategory.

Carbon tetrachloride	56-23-5	0.057	6.0
Chloroform	67-66-3	0.046	6.0
1,2-Dichloroethane	107-06-2	0.21	6.0
1,1-Dichloroethylene	75-35-4	0.025	6.0
Methylene chloride	75-9-2	0.089	30
1,1,2-Trichloroethane	79-00-5	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0
Vinyl chloride	75-01-4	0.27	6.0

#### F025

Spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. F025—Spent Filters/Aids and Desiccants Subcategory.

Carbon tetrachloride	56-23-5	0.057	6.0
Chloroform	67-66-3	0.046	6.0
Hexachlorobenzene	118-74-1	0.055	10
Hexachlorobutadiene	87-68-3	0.055	5.6
Hexachloroethane	67-72-1	0.055	30
Methylene chloride	75-9-2	0.089	30
1,1,2-Trichloroethane	79-00-5	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0
Vinyl chloride	75-01-4	0.27	6.0

#### F027

Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.)

HxCDDs (All Hexachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachloro-dibenzofurans)	55684-94-1	0.000063	0.001
PeCDDs (All Pentachloro-dibenzo-p-dioxins)	36088-22-9	0.000063	0.001
PeCDFs (All Pentachloro-dibenzofurans)	30402-15-4	0.000035	0.001
Pentachlorophenol	87-86-5	0.089	7.4

TCDDs (All Tetrachloro-dibenzo-p-dioxins)	41903-57-5	0.000063	0.001
TCDFs (All Tetrachloro-dibenzofurans)	55722-27-5	0.000063	0.001
2,4,5-Trichlorophenol	95-95-4	0.18	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4

#### F028

Residues resulting from the incineration or thermal treatment of soil contaminated with USEPA hazardous waste numbers F020, F021, F023, F026, and F027.

HxCDDs (All Hexachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachloro-dibenzofurans)	55684-94-1	0.000063	0.001
PeCDDs (All Pentachloro-dibenzo-p-dioxins)	36088-22-9	0.000063	0.001
PeCDFs (All Pentachloro-dibenzofurans)	30402-15-4	0.000035	0.001
Pentachlorophenol	87-86-5	0.089	7.4
TCDDs (All Tetrachloro-dibenzo-p-dioxins)	41903-57-5	0.000063	0.001
TCDFs (All Tetrachloro-dibenzofurans)	55722-27-5	0.000063	0.001
2,4,5-Trichlorophenol	95-95-4	0.18	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4

#### F032

Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 USEPA hazardous waste number deleted in accordance with 35 Ill. Adm. Code 721.135 or potentially cross-contaminated wastes that are otherwise currently regulated as hazardous wastes (i.e., F034 or F035), where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or penta-chlorophenol.

Acenaphthene	83-32-9	0.059	3.4
Anthracene	120-12-7	0.059	3.4
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8

Benzo(a)pyrene	50-32-8	0.061	3.4
Chrysene	218-01-9	0.059	3.4
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
2-4-Dimethyl phenol	105-67-9	0.036	14
Fluorene	86-73-7	0.059	3.4
Hexachlorodibenzo-p-dioxins	NA	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
Hexachlorodibenzofurans	NA	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4
Naphthalene	91-20-3	0.059	5.6
Pentachlorodibenzo-p-dioxins	NA	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
Pentachlorodibenzofurans	NA	0.000035 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
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 <sup>11</sup>	0.001 or CMBST <sup>11</sup>
Tetrachlorodibenzofurans	NA	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
Arsenic	7440-38-2	1.4	5.0 mg/ℓ TCLP
Chromium (Total)	7440-47-3	2.77	0.60 mg/ℓ TCLP

#### F034

Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol.

Acenaphthene	83-32-9	0.059	3.4
Anthracene	120-12-7	0.059	3.4
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
Benzo(a)pyrene	50-32-8	0.061	3.4
Chrysene	218-01-9	0.059	3.4
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
Fluorene	86-73-7	0.059	3.4

Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Pyrene	129-00-0	0.067	8.2
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP

#### F035

Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes that are generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol.

Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP

#### F037

Petroleum refinery primary oil/water/solids separation sludge—any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in: oil/water/solids separators; tanks, and impoundments; ditches, and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in 35 Ill. Adm. Code 721.131(b)(2) (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing.

Acenaphthene	83-32-9	0.059	NA
Anthracene	120-12-7	0.059	3.4
Benzene	71-43-2	0.14	10
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(a)pyrene	50-32-8	0.061	3.4
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Chrysene	218-01-9	0.059	3.4
Di-n-butyl phthalate	84-74-2	0.057	28
Ethylbenzene	100-41-4	0.057	10
Fluorene	86-73-7	0.059	NA
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyrene	129-00-0	0.067	8.2
Toluene	108-88-3	0.080	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP

Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	11 mg/ℓ TCLP

#### F038

Petroleum refinery secondary (emulsified) oil/water/solids separation sludge or float generated from the physical or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air floatation (IAF) units, tanks, and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges, and floats generated in aggressive biological treatment units as defined in 35 Ill. Adm. Code 721.131(b)(2) (including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological units) and F037, K048, and K051 are not included in this listing.

Benzene	71-43-2	0.14	10
Benzo(a)pyrene	50-32-8	0.061	3.4
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Chrysene	218-01-9	0.059	3.4
Di-n-butyl phthalate	84-74-2	0.057	28
Ethylbenzene	100-41-4	0.057	10
Fluorene	86-73-7	0.059	NA
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyrene	129-00-0	0.067	8.2
Toluene	108-88-3	0.080	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Chromium (Total)	7440-47-3	2.77	0.60 mg/ℓ TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	11 mg/ℓ TCLP

#### F039

Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under Subpart D. (Leachate resulting from the disposal of one or more of the following USEPA hazardous wastes and no other hazardous wastes retains its USEPA hazardous waste numbers: F020, F021, F022, F026, F027, or F028.).

Acenaphthylene	208-96-8	0.059	3.4
Acenaphthene	83-32-9	0.059	3.4
Acetone	67-64-1	0.28	160
Acetonitrile	75-05-8	5.6	NA
Acetophenone	96-86-2	0.010	9.7
2-Acetylaminofluorene	53-96-3	0.059	140

Acrolein	107-02-8	0.29	NA
Acrylonitrile	107-13-1	0.24	84
Aldrin	309-00-2	0.021	0.066
4-Aminobiphenyl	92-67-1	0.13	NA
Aniline	62-53-3	0.81	14
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
$\alpha$ -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
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)-fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)-fluoranthene)	207-08-9	0.11	6.8
Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
Benzo(a)pyrene	50-32-8	0.061	3.4
Bromodichloromethane	75-27-4	0.35	15
Methyl bromide (Bromo-methane)	74-83-9	0.11	15
4-Bromophenyl phenyl ether	101-55-3	0.055	15
n-Butyl alcohol	71-36-3	5.6	2.6
Butyl benzyl phthalate	85-68-7	0.017	28
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
Chlordane ( $\alpha$ and $\chi$ isomers)	57-74-9	0.0033	0.26
p-Chloroaniline	106-47-8	0.46	16
Chlorobenzene	108-90-7	0.057	6.0
Chlorobenzilate	510-15-6	0.10	NA
2-Chloro-1,3-butadiene	126-99-8	0.057	NA
Chlorodibromomethane	124-48-1	0.057	15
Chloroethane	75-00-3	0.27	6.0
bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2
bis(2-Chloroethyl) ether	111-44-4	0.033	6.0
Chloroform	67-66-3	0.046	6.0
bis(2-Chloroisopropyl) ether	39638-32-9	0.055	7.2
p-Chloro-m-cresol	59-50-7	0.018	14
Chloromethane (Methyl chloride)	74-87-3	0.19	30

2-Chloronaphthalene	91-58-7	0.055	5.6
2-Chlorophenol	95-57-8	0.044	5.7
3-Chloropropylene	107-05-1	0.036	30
Chrysene	218-01-9	0.059	3.4
p-Cresidine	120-71-8	0.010	0.66
o-Cresol	95-48-7	0.11	5.6
m-Cresol	108-39-4	0.77	5.6
(difficult to distinguish from p-cresol)			
p-Cresol	106-44-5	0.77	5.6
(difficult to distinguish from m-cresol)			
Cyclohexanone	108-94-1	0.36	NA
1,2-Dibromo-3-chloropropane	96-12-8	0.11	15
Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
Dibromomethane	74-95-3	0.11	15
2,4-D (2,4-Dichlorophenoxyacetic acid)	94-75-7	0.72	10
o,p'-DDD	53-19-0	0.023	0.087
p,p'-DDD	72-54-8	0.023	0.087
o,p'-DDE	3424-82-6	0.031	0.087
p,p'-DDE	72-55-9	0.031	0.087
o,p'-DDT	789-02-6	0.0039	0.087
p,p'-DDT	50-29-3	0.0039	0.087
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
Dibenz(a,e)pyrene	192-65-4	0.061	NA
m-Dichlorobenzene	541-73-1	0.036	6.0
o-Dichlorobenzene	95-50-1	0.088	6.0
p-Dichlorobenzene	106-46-7	0.090	6.0
Dichlorodifluoromethane	75-71-8	0.23	7.2
1,1-Dichloroethane	75-34-3	0.059	6.0
1,2-Dichloroethane	107-06-2	0.21	6.0
1,1-Dichloroethylene	75-35-4	0.025	6.0
trans-1,2-Dichloroethylene	156-60-5	0.054	30
2,4-Dichlorophenol	120-83-2	0.044	14
2,6-Dichlorophenol	87-65-0	0.044	14
1,2-Dichloropropane	78-87-5	0.85	18
cis-1,3-Dichloropropylene	10061-01-5	0.036	18
trans-1,3-Dichloropropylene	10061-02-6	0.036	18
Dieldrin	60-57-1	0.017	0.13
2,4-Dimethylaniline (2,4-xylidine)	95-68-1	0.010	0.66
Diethyl phthalate	84-66-2	0.20	28
2-4-Dimethyl phenol	105-67-9	0.036	14
Dimethyl phthalate	131-11-3	0.047	28

Di-n-butyl phthalate	84-74-2	0.057	28
1,4-Dinitrobenzene	100-25-4	0.32	2.3
4,6-Dinitro-o-cresol	534-52-1	0.28	160
2,4-Dinitrophenol	51-28-5	0.12	160
2,4-Dinitrotoluene	121-14-2	0.32	140
2,6-Dinitrotoluene	606-20-2	0.55	28
Di-n-octyl phthalate	117-84-0	0.017	28
Di-n-propylnitrosamine	621-64-7	0.40	14
1,4-Dioxane	123-91-1	12.0	170
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
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
Ethyl cyanide (Propanenitrile)	107-12-0	0.24	360
Ethyl benzene	100-41-4	0.057	10
Ethyl ether	60-29-7	0.12	160
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Ethyl methacrylate	97-63-2	0.14	160
Ethylene oxide	75-21-8	0.12	NA
Famphur	52-85-7	0.017	15
Fluoranthene	206-44-0	0.068	3.4
Fluorene	86-73-7	0.059	3.4
Heptachlor	76-44-8	0.0012	0.066
1,2,3,4,6,7,8-Heptachloro-dibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	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
Heptachlor epoxide	1024-57-3	0.016	0.066
Hexachlorobenzene	118-74-1	0.055	10
Hexachlorobutadiene	87-68-3	0.055	5.6
Hexachlorocyclopentadiene	77-47-4	0.057	2.4



HxCDDs (All Hexachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachloro-dibenzofurans)	55684-94-1	0.000063	0.001
Hexachloroethane	67-72-1	0.055	30
Hexachloropropylene	1888-71-7	0.035	30
Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4
Iodomethane	74-88-4	0.19	65
Isobutyl alcohol	78-83-1	5.6	170
Isodrin	465-73-6	0.021	0.066
Isosafrole	120-58-1	0.081	2.6
Kepone	143-50-8	0.0011	0.13
Methacrylonitrile	126-98-7	0.24	84
Methanol	67-56-1	5.6	NA
Methapyrilene	91-80-5	0.081	1.5
Methoxychlor	72-43-5	0.25	0.18
3-Methylcholanthrene	56-49-5	0.0055	15
4,4-Methylene bis(2-chloro-aniline)	101-14-4	0.50	30
Methylene chloride	75-09-2	0.089	30
Methyl ethyl ketone	78-93-3	0.28	36
Methyl isobutyl ketone	108-10-1	0.14	33
Methyl methacrylate	80-62-6	0.14	160
Methyl methansulfonate	66-27-3	0.018	NA
Methyl parathion	298-00-0	0.014	4.6
Naphthalene	91-20-3	0.059	5.6
2-Naphthylamine	91-59-8	0.52	NA
p-Nitroaniline	100-01-6	0.028	28
Nitrobenzene	98-95-3	0.068	14
5-Nitro-o-toluidine	99-55-8	0.32	28
p-Nitrophenol	100-02-7	0.12	29
N-Nitrosodiethylamine	55-18-5	0.40	28
N-Nitrosodimethylamine	62-75-9	0.40	NA
N-Nitroso-di-n-butylamine	924-16-3	0.40	17
N-Nitrosomethylethylamine	10595-95-6	0.40	2.3
N-Nitrosomorpholine	59-89-2	0.40	2.3
N-Nitrosopiperidine	100-75-4	0.013	35
N-Nitrosopyrrolidine	930-55-2	0.013	35
1,2,3,4,6,7,8,9-Octachloro-dibenzo-p-dioxin (1,2,3,4,6,7,8,9-OCDD)	3268-87-9	0.000063	0.0025
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (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	0.10	10
Pentachlorobenzene	608-93-5	0.055	10
PeCDDs (All Pentachloro- dibenzo-p-dioxins)	36088-22-9	0.000063	0.001
PeCDFs (All Pentachloro- dibenzofurans)	30402-15-4	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
Safrole	94-59-7	0.081	22
Silvex (2,4,5-TP)	93-72-1	0.72	7.9
2,4,5-T	93-76-5	0.72	7.9
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
TCDDs (All Tetrachloro- dibenzo-p-dioxins)	41903-57-5	0.000063	0.001
TCDFs (All Tetrachloro- dibenzofurans)	55722-27-5	0.000063	0.001
1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
Toluene	108-88-3	0.080	10
Toxaphene	8001-35-2	0.0095	2.6
Bromoform (Tribromomethane)	75-25-2	0.63	15
1,2,4-Trichlorobenzene	120-82-1	0.055	19
1,1,1-Trichloroethane	71-55-6	0.054	6.0
1,1,2-Trichloroethane	79-00-5	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0
Trichloromonofluoromethane	75-69-4	0.020	30
2,4,5-Trichlorophenol	95-95-4	0.18	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
1,2,3-Trichloropropane	96-18-4	0.85	30
1,1,2-Trichloro-1,2,2-trifluoro- ethane	76-13-1	0.057	30
tris(2,3-Dibromopropyl) phosphate	126-72-7	0.11	NA

Vinyl chloride	75-01-4	0.27	6.0
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Antimony	7440-36-0	1.9	1.15 mg/l TCLP
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Barium	7440-39-3	1.2	21 mg/l TCLP
Beryllium	7440-41-7	0.82	NA
Cadmium	7440-43-9	0.69	0.11 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	NA
Fluoride	16964-48-8	35	NA
Lead	7439-92-1	0.69	0.75 mg/l TCLP
Mercury	7439-97-6	0.15	0.025 mg/l TCLP
Nickel	7440-02-0	3.98	11 mg/l TCLP
Selenium	7782-49-2	0.82	5.7 mg/l TCLP
Silver	7440-22-4	0.43	0.14 mg/l TCLP
Sulfide	8496-25-8	14	NA
Thallium	7440-28-0	1.4	NA
Vanadium	7440-62-2	4.3	NA

#### K001

Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote or pentachlorophenol.

Naphthalene	91-20-3	0.059	5.6
Pentachlorophenol	87-86-5	0.089	7.4
Phenanthrene	85-01-8	0.059	5.6
Pyrene	129-00-0	0.067	8.2
Toluene	108-88-3	0.080	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Lead	7439-92-1	0.69	0.75 mg/l TCLP

#### K002

Wastewater treatment sludge from the production of chrome yellow and orange pigments.

Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Lead	7439-92-1	0.69	0.75 mg/l TCLP

#### K003

Wastewater treatment sludge from the production of molybdate orange pigments.

Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Lead	7439-92-1	0.69	0.75 mg/l TCLP

K004

Wastewater treatment sludge from the production of zinc yellow pigments.

Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Lead	7439-92-1	0.69	0.75 mg/l TCLP

K005

Wastewater treatment sludge from the production of chrome green pigments.

Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Lead	7439-92-1	0.69	0.75 mg/l TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590

K006

Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous).

Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Lead	7439-92-1	0.69	0.75 mg/l TCLP

K006

Wastewater treatment sludge from the production of chrome oxide green pigments (hydrated).

Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Lead	7439-92-1	0.69	NA

K007

Wastewater treatment sludge from the production of iron blue pigments.

Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Lead	7439-92-1	0.69	0.75 mg/l TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590

K008

Oven residue from the production of chrome oxide green pigments.

Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Lead	7439-92-1	0.69	0.75 mg/l TCLP

K009

Distillation bottoms from the production of acetaldehyde from ethylene.

Chloroform	67-66-3	0.046	6.0
------------	---------	-------	-----

K010

Distillation side cuts from the production of acetaldehyde from ethylene.

Chloroform	67-66-3	0.046	6.0
------------	---------	-------	-----

K011

Bottom stream from the wastewater stripper in the production of acrylonitrile.

Acetonitrile	75-05-8	5.6	38
Acrylonitrile	107-13-1	0.24	84
Acrylamide	79-06-1	19	23
Benzene	71-43-2	0.14	10
Cyanide (Total)	57-12-5	1.2	590

## K013

Bottom stream from the acetonitrile column in the production of acrylonitrile.

Acetonitrile	75-05-8	5.6	38
Acrylonitrile	107-13-1	0.24	84
Acrylamide	79-06-1	19	23
Benzene	71-43-2	0.14	10
Cyanide (Total)	57-12-5	1.2	590

## K014

Bottoms from the acetonitrile purification column in the production of acrylonitrile.

Acetonitrile	75-05-8	5.6	38
Acrylonitrile	107-13-1	0.24	84
Acrylamide	79-06-1	19	23
Benzene	71-43-2	0.14	10
Cyanide (Total)	57-12-5	1.2	590

## K015

Still bottoms from the distillation of benzyl chloride.

Anthracene	120-12-7	0.059	3.4
Benzal chloride	98-87-3	0.055	6.0
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)-fluoranthene)	205-99-2	0.11	6.8
Benzo(k)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	0.080	10
Chromium (Total)	7440-47-3	2.77	0.60 mg/ℓ TCLP
Nickel	7440-02-0	3.98	11 mg/ℓ TCLP

## K016

Heavy ends or distillation residues from the production of carbon tetrachloride.

Hexachlorobenzene	118-74-1	0.055	10
Hexachlorobutadiene	87-68-3	0.055	5.6
Hexachlorocyclopentadiene	77-47-4	0.057	2.4
Hexachloroethane	67-72-1	0.055	30
Tetrachloroethylene	127-18-4	0.056	6.0

## K017

Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.

bis(2-Chloroethyl) ether	111-44-4	0.033	6.0
1,2-Dichloropropane	78-87-5	0.85	18
1,2,3-Trichloropropane	96-18-4	0.85	30

## K018

Heavy ends from the fractionation column in ethyl chloride production.

Chloroethane	75-00-3	0.27	6.0
Chloromethane	74-87-3	0.19	NA
1,1-Dichloroethane	75-34-3	0.059	6.0
1,2-Dichloroethane	107-06-2	0.21	6.0
Hexachlorobenzene	118-74-1	0.055	10
Hexachlorobutadiene	87-68-3	0.055	5.6
Hexachloroethane	67-72-1	0.055	30
Pentachloroethane	76-01-7	NA	6.0
1,1,1-Trichloroethane	71-55-6	0.054	6.0

## K019

Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.

bis(2-Chloroethyl) ether	111-44-4	0.033	6.0
Chlorobenzene	108-90-7	0.057	6.0
Chloroform	67-66-3	0.046	6.0
p-Dichlorobenzene	106-46-7	0.090	NA
1,2-Dichloroethane	107-06-2	0.21	6.0
Fluorene	86-73-7	0.059	NA
Hexachloroethane	67-72-1	0.055	30
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	NA
Tetrachloroethylene	127-18-4	0.056	6.0
1,2,4-Trichlorobenzene	120-82-1	0.055	19
1,1,1-Trichloroethane	71-55-6	0.054	6.0

## K020

Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.

1,2-Dichloroethane	107-06-2	0.21	6.0
1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0

## K021

Aqueous spent antimony catalyst waste from fluoromethanes production.

Carbon tetrachloride	56-23-5	0.057	6.0
Chloroform	67-66-3	0.046	6.0
Antimony	7440-36-0	1.9	1.15 mg/l TCLP

## K022

Distillation bottom tars from the production of phenol or acetone from cumene.

Toluene	108-88-3	0.080	10
Acetophenone	96-86-2	0.010	9.7
Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	13

Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	13
Phenol	108-95-2	0.039	6.2
Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Nickel	7440-02-0	3.98	11 mg/l TCLP

K023

Distillation light ends from the production of phthalic anhydride from naphthalene.

Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28
Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28

K024

Distillation bottoms from the production of phthalic anhydride from naphthalene.

Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28
Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28

K025

Distillation bottoms from the production of nitrobenzene by the nitration of benzene.

NA	NA	LLEXT fb SSTRP fb CARBN; or CMBST	CMBST
----	----	---	-------

K026

Stripping still tails from the production of methyl ethyl pyridines.

NA	NA	CMBST	CMBST
----	----	-------	-------

K027

Centrifuge and distillation residues from toluene diisocyanate production.

NA	NA	CARBN; or CMBST	CMBST
----	----	--------------------	-------

K028

Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.

1,1-Dichloroethane	75-34-3	0.059	6.0
trans-1,2-Dichloroethylene	156-60-5	0.054	30
Hexachlorobutadiene	87-68-3	0.055	5.6
Hexachloroethane	67-72-1	0.055	30
Pentachloroethane	76-01-7	NA	6.0

1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
1,1,1-Trichloroethane	71-55-6	0.054	6.0
1,1,2-Trichloroethane	79-00-5	0.054	6.0
Cadmium	7440-43-9	0.69	NA
Chromium(Total)	7440-47-3	2.77	0.60 mg/l TCLP
Lead	7439-92-1	0.69	0.75 mg/l TCLP
Nickel	7440-02-0	3.98	11 mg/l TCLP

#### K029

Waste from the product steam stripper in the production of 1,1,1-trichloroethane.

Chloroform	67-66-3	0.046	6.0
1,2-Dichloroethane	107-06-2	0.21	6.0
1,1-Dichloroethylene	75-35-4	0.025	6.0
1,1,1-Trichloroethane	71-55-6	0.054	6.0
Vinyl chloride	75-01-4	0.27	6.0

#### K030

Column bodies or heavy ends from the combined production of trichloroethylene and perchloroethylene.

o-Dichlorobenzene	95-50-1	0.088	NA
p-Dichlorobenzene	106-46-7	0.090	NA
Hexachlorobutadiene	87-68-3	0.055	5.6
Hexachloroethane	67-72-1	0.055	30
Hexachloropropylene	1888-71-7	NA	30
Pentachlorobenzene	608-93-5	NA	10
Pentachloroethane	76-01-7	NA	6.0
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
Tetrachloroethylene	127-18-4	0.056	6.0
1,2,4-Trichlorobenzene	120-82-1	0.055	19

#### K031

By-product salts generated in the production of MSMA and cacodylic acid.

Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
---------	-----------	-----	---------------

#### K032

Wastewater treatment sludge from the production of chlordane.

Hexachlorocyclopentadiene	77-47-4	0.057	2.4
Chlordane ( $\alpha$ and $\gamma$ isomers)	57-74-9	0.0033	0.26
Heptachlor	76-44-8	0.0012	0.066
Heptachlor epoxide	1024-57-3	0.016	0.066

#### K033

Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.

Hexachlorocyclopentadiene	77-47-4	0.057	2.4
---------------------------	---------	-------	-----



## K034

Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.

Hexachlorocyclopentadiene	77-47-4	0.057	2.4
---------------------------	---------	-------	-----

## K035

Wastewater treatment sludges generated in the production of creosote.

Acenaphthene	83-32-9	NA	3.4
Anthracene	120-12-7	NA	3.4
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(a)pyrene	50-32-8	0.061	3.4
Chrysene	218-01-9	0.059	3.4
o-Cresol	95-48-7	0.11	5.6
m-Cresol	108-39-4	0.77	5.6
(difficult to distinguish from p-cresol)			
p-Cresol	106-44-5	0.77	5.6
(difficult to distinguish from m-cresol)			
Dibenz(a,h)anthracene	53-70-3	NA	8.2
Fluoranthene	206-44-0	0.068	3.4
Fluorene	86-73-7	NA	3.4
Indeno(1,2,3-cd)pyrene	193-39-5	NA	3.4
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyrene	129-00-0	0.067	8.2

## K036

Still bottoms from toluene reclamation distillation in the production of disulfoton.

Disulfoton	298-04-4	0.017	6.2
------------	----------	-------	-----

## K037

Wastewater treatment sludges from the production of disulfoton.

Disulfoton	298-04-4	0.017	6.2
Toluene	108-88-3	0.080	10

## 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
----	----	--------------------	-------

## 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 residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.

o-Dichlorobenzene	95-50-1	0.088	6.0
p-Dichlorobenzene	106-46-7	0.090	6.0
Pentachlorobenzene	608-93-5	0.055	10
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
1,2,4-Trichlorobenzene	120-82-1	0.055	19

## K043

2,6-Dichlorophenol waste from the production of 2,4-D.

2,4-Dichlorophenol	120-83-2	0.044	14
2,6-Dichlorophenol	187-65-0	0.044	14
2,4,5-Trichlorophenol	95-95-4	0.18	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
Pentachlorophenol	87-86-5	0.089	7.4
Tetrachloroethylene	127-18-4	0.056	6.0
HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachlorodibenzofurans)	55684-94-1	0.000063	0.001
PeCDDs (All Pentachlorodibenzo-p-dioxins)	36088-22-9	0.000063	0.001
PeCDFs (All Pentachlorodibenzofurans)	30402-15-4	0.000035	0.001
TCDDs (All Tetrachlorodibenzo-p-dioxins)	41903-57-5	0.000063	0.001
TCDFs (All Tetrachlorodibenzofurans)	55722-27-5	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
----	----	-------	-------

## K048

Dissolved air flotation (DAF) float from the petroleum refining industry.

Benzene	71-43-2	0.14	10
Benzo(a)pyrene	50-32-8	0.061	3.4
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Chrysene	218-01-9	0.059	3.4
Di-n-butyl phthalate	84-74-2	0.057	28
Ethylbenzene	100-41-4	0.057	10
Fluorene	86-73-7	0.059	NA
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyrene	129-00-0	0.067	8.2
Toluene	108-88-33	0.080	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Chromium (Total)	7440-47-3	2.77	0.60 mg/ℓ TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	11 mg/ℓ TCLP

## K049

Slop oil emulsion solids from the petroleum refining industry.

Anthracene	120-12-7	0.059	3.4
Benzene	71-43-2	0.14	10
Benzo(a)pyrene	50-32-8	0.061	3.4
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Carbon disulfide	75-15-0	3.8	NA
Chrysene	218-01-9	0.059	3.4
2,4-Dimethylphenol	105-67-9	0.036	NA
Ethylbenzene	100-41-4	0.057	10
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyrene	129-00-0	0.067	8.2
Toluene	108-88-3	0.080	10

Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Chromium (Total)	7440-47-3	2.77	0.60 mg/ℓ TCLP
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	11 mg/ℓ TCLP

#### K050

Heat exchanger bundle cleaning sludge from the petroleum refining industry.

Benzo(a)pyrene	50-32-8	0.061	3.4
Phenol	108-95-2	0.039	6.2
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Chromium (Total)	7440-47-3	2.77	0.60 mg/ℓ TCLP
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	11 mg/ℓ TCLP

#### K051

API separator sludge from the petroleum refining industry.

Acenaphthene	83-32-9	0.059	NA
Anthracene	120-12-7	0.059	3.4
Benz(a)anthracene	56-55-3	0.059	3.4
Benzene	71-43-2	0.14	10
Benzo(a)pyrene	50-32-8	0.061	3.4
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Chrysene	218-01-9	0.059	3.4
Di-n-butyl phthalate	105-67-9	0.057	28
Ethylbenzene	100-41-4	0.057	10
Fluorene	86-73-7	0.059	NA
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyrene	129-00-0	0.067	8.2
Toluene	108-88-3	0.08	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Chromium (Total)	7440-47-3	2.77	0.60 mg/ℓ TCLP
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	11 mg/ℓ TCLP

#### K052

Tank bottoms (leaded) from the petroleum refining industry.

Benzene	71-43-2	0.14	10
Benzo(a)pyrene	50-32-8	0.061	3.4
o-Cresol	95-48-7	0.11	5.6

m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
2,4-Dimethylphenol	105-67-9	0.036	NA
Ethylbenzene	100-41-4	0.057	10
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Toluene	108-88-3	0.08	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	11 mg/l TCLP

#### K060

Ammonia still lime sludge from coking operations.

Benzene	71-43-2	0.14	10
Benzo(a)pyrene	50-32-8	0.061	3.4
Naphthalene	91-20-3	0.059	5.6
Phenol	108-95-2	0.039	6.2
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590

#### K061

Emission control dust or sludge from the primary production of steel in electric furnaces.

Antimony	7440-36-0	NA	1.15 mg/l TCLP
Arsenic	7440-38-2	NA	5.0 mg/l TCLP
Barium	7440-39-3	NA	21 mg/l TCLP
Beryllium	7440-41-7	NA	1.22 mg/l TCLP
Cadmium	7440-43-9	0.69	0.11 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Lead	7439-92-1	0.69	0.75 mg/l TCLP
Mercury	7439-97-6	NA	0.025 mg/l TCLP
Nickel	7440-02-0	3.98	11 mg/l TCLP
Selenium	7782-49-2	NA	5.7 mg/l TCLP
Silver	7440-22-4	NA	0.14 mg/l TCLP
Thallium	7440-28-0	NA	0.20 mg/l TCLP
Zinc	7440-66-6	NA	4.3 mg/l TCLP

## K062

Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332).

Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Lead	7439-92-1	0.69	0.75 mg/l TCLP
Nickel	7440-02-0	3.98	NA

## K069

Emission control dust or sludge from secondary lead smelting - Calcium sulfate (Low Lead)

Subcategory.

Cadmium	7440-43-9	0.69	0.11 mg/l TCLP
Lead	7439-92-1	0.69	0.75 mg/l TCLP

## K069

Emission control dust or sludge from secondary lead smelting - Non-Calcium sulfate (High Lead) Subcategory.

NA	NA	NA	RLEAD
----	----	----	-------

## K071

K071 (Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used) nonwastewaters that are residues from RMERC.

Mercury	7439-97-6	NA	0.20 mg/l TCLP
---------	-----------	----	----------------

## K071

K071 (Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used) nonwastewaters that are not residues from RMERC.

Mercury	7439-97-6	NA	0.025 mg/l TCLP
---------	-----------	----	-----------------

## K071

All K071 wastewaters.

Mercury	7439-97-6	0.15	NA
---------	-----------	------	----

## K073

Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.

Carbon tetrachloride	56-23-5	0.057	6.0
Chloroform	67-66-3	0.046	6.0
Hexachloroethane	67-72-1	0.055	30
Tetrachloroethylene	127-18-4	0.056	6.0
1,1,1-Trichloroethane	71-55-6	0.054	6.0

## K083

Distillation bottoms from aniline production.

Aniline	62-53-3	0.81	14
Benzene	71-43-2	0.14	10
Cyclohexanone	108-94-1	0.36	NA

Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	13
Diphenylnitrosamine (difficult to distinguish from diphenyl- amine)	86-30-6	0.92	13
Nitrobenzene	98-95-3	0.068	14
Phenol	108-95-2	0.039	6.2
Nickel	7440-02-0	3.98	11 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 column bottoms from the production of chlorobenzenes.

Benzene	71-43-2	0.14	10
Chlorobenzene	108-90-7	0.057	6.0
m-Dichlorobenzene	541-73-1	0.036	6.0
o-Dichlorobenzene	95-50-1	0.088	6.0
p-Dichlorobenzene	106-46-7	0.090	6.0
Hexachlorobenzene	118-74-1	0.055	10
Total PCBs (sum of all PCB isomers, or all Aroclors)	1336-36-3	0.10	10
Pentachlorobenzene	608-93-5	0.055	10
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
1,2,4-Trichlorobenzene	120-82-1	0.055	19

#### K086

Solvent wastes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.

Acetone	67-64-1	0.28	160
Acetophenone	96-86-2	0.010	9.7
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
n-Butyl alcohol	71-36-3	5.6	2.6
Butylbenzyl phthalate	85-68-7	0.017	28
Cyclohexanone	108-94-1	0.36	NA
o-Dichlorobenzene	95-50-1	0.088	6.0
Diethyl phthalate	84-66-2	0.20	28
Dimethyl phthalate	131-11-3	0.047	28
Di-n-butyl phthalate	84-74-2	0.057	28
Di-n-octyl phthalate	117-84-0	0.017	28
Ethyl acetate	141-78-6	0.34	33
Ethylbenzene	100-41-4	0.057	10

Methanol	67-56-1	5.6	NA
Methyl ethyl ketone	78-93-3	0.28	36
Methyl isobutyl ketone	108-10-1	0.14	33
Methylene chloride	75-09-2	0.089	30
Naphthalene	91-20-3	0.059	5.6
Nitrobenzene	98-95-3	0.068	14
Toluene	108-88-3	0.080	10
1,1,1-Trichloroethane	71-55-6	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Chromium (Total)	7440-47-3	2.77	0.60 mg/ℓ TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Lead	7439-92-1	0.69	0.75 mg/ℓ TCLP

#### K087

Decanter tank tar sludge from coking operations.

Acenaphthylene	208-96-8	0.059	3.4
Benzene	71-43-2	0.14	10
Chrysene	218-01-9	0.059	3.4
Fluoranthene	206-44-0	0.068	3.4
Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Toluene	108-88-3	0.080	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Lead	7439-92-1	0.69	0.75 mg/ℓ TCLP

#### K088

Spent potliners from primary aluminum reduction.

Acenaphthene	83-32-9	0.059	3.4
Anthracene	120-12-7	0.059	3.4
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(a)pyrene	50-32-8	0.061	3.4
Benzo(b)fluoranthene	205-99-2	0.11	6.8
Benzo(k)fluoranthene	207-08-9	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-cd)pyrene	193-39-5	0.0055	3.4
Phenanthrene	85-01-8	0.059	5.6
Pyrene	129-00-0	0.067	8.2
Antimony	7440-36-0	1.9	1.15 mg/ℓ TCLP



Arsenic	7440-38-2	1.4	26.1 mg/ℓ
Barium	7440-39-3	1.2	21 mg/ℓ TCLP
Beryllium	7440-41-7	0.82	1.22 mg/ℓ TCLP
Cadmium	7440-43-9	0.69	0.11 mg/ℓ TCLP
Chromium (Total)	7440-47-3	2.77	0.60 mg/ℓ TCLP
Lead	7439-92-1	0.69	0.75 mg/ℓ TCLP
Mercury	7439-97-6	0.15	0.025 mg/ℓ TCLP
Nickel	7440-02-0	3.98	11 mg/ℓ TCLP
Selenium	7782-49-2	0.82	5.7 mg/ℓ TCLP
Silver	7440-22-4	0.43	0.14 mg/ℓ TCLP
Cyanide (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanide (Amenable) <sup>7</sup>	57-12-5	0.86	30
Fluoride	16984-48-8	35	NA

#### K093

Distillation light ends from the production of phthalic anhydride from ortho-xylene.

Phthalic anhydride (measured as	100-21-0	0.055	28
Phthalic acid or Terephthalic acid)			
Phthalic anhydride (measured as	85-44-9	0.055	28
Phthalic acid or Terephthalic acid)			

#### K094

Distillation bottoms from the production of phthalic anhydride from ortho-xylene.

Phthalic anhydride (measured as	100-21-0	0.055	28
Phthalic acid or Terephthalic acid)			
Phthalic anhydride (measured as	85-44-9	0.055	28
Phthalic acid or Terephthalic acid)			

#### K095

Distillation bottoms from the production of 1,1,1-trichloroethane.

Hexachloroethane	67-72-1	0.055	30
Pentachloroethane	76-01-7	0.055	6.0
1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
1,1,2-Trichloroethane	79-00-5	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0

#### K096

Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.

m-Dichlorobenzene	541-73-1	0.036	6.0
Pentachloroethane	76-01-7	0.055	6.0
1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0

1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
1,2,4-Trichlorobenzene	120-82-1	0.055	19
1,1,2-Trichloroethane	79-00-5	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0

#### K097

Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.

Chlordane ( $\alpha$ and $\chi$ 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
Hexachlorocyclopentadiene	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 wastewater from the production of 2,4-D.

2,4-Dichlorophenoxyacetic acid	94-75-7	0.72	10
HxCDDs (All Hexachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachloro-dibenzofurans)	55684-94-1	0.000063	0.001
PeCDDs (All Pentachloro-dibenzo-p-dioxins)	36088-22-9	0.000063	0.001
PeCDFs (All Pentachloro-dibenzofurans)	30402-15-4	0.000035	0.001
TCDDs (All Tetrachloro-dibenzo-p-dioxins)	41903-57-5	0.000063	0.001
TCDFs (All Tetrachloro-dibenzofurans)	55722-27-5	0.000063	0.001

#### K100

Waste leaching solution from acid leaching of emission control dust or sludge from secondary lead smelting.

Cadmium	7440-43-9	0.69	0.11 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Lead	7439-92-1	0.69	0.75 mg/l TCLP

#### K101

Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.

o-Nitroaniline	88-74-4	0.27	14
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Cadmium	7440-43-9	0.69	NA
Lead	7439-92-1	0.69	NA

Mercury	7439-97-6	0.15	NA
---------	-----------	------	----

#### K102

Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.

o-Nitrophenol	88-75-5	0.028	13
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Cadmium	7440-43-9	0.69	NA
Lead	7439-92-1	0.69	NA
Mercury	7439-97-6	0.15	NA

#### K103

Process residues from aniline extraction from the production of aniline.

Aniline	62-53-3	0.81	14
Benzene	71-43-2	0.14	10
2,4-Dinitrophenol	51-28-5	0.12	160
Nitrobenzene	98-95-3	0.068	14
Phenol	108-95-2	0.039	6.2

#### K104

Combined wastewater streams generated from nitrobenzene or aniline production.

Aniline	62-53-3	0.81	14
Benzene	71-43-2	0.14	10
2,4-Dinitrophenol	51-28-5	0.12	160
Nitrobenzene	98-95-3	0.068	14
Phenol	108-95-2	0.039	6.2
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590

#### K105

Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.

Benzene	71-43-2	0.14	10
Chlorobenzene	108-90-7	0.057	6.0
2-Chlorophenol	95-57-8	0.044	5.7
o-Dichlorobenzene	95-50-1	0.088	6.0
p-Dichlorobenzene	106-46-7	0.090	6.0
Phenol	108-95-2	0.039	6.2
2,4,5-Trichlorophenol	95-95-4	0.18	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4

#### K106

K106 (wastewater treatment sludge from the mercury cell process in chlorine production) nonwastewaters that contain greater than or equal to 260 mg/kg total mercury.

Mercury	7439-97-6	NA	RMERC
---------	-----------	----	-------

K106

K106 (wastewater treatment sludge from the mercury cell process in chlorine production) nonwastewaters that contain less than 260 mg/kg total mercury that are residues from RMERC.

Mercury	7439-97-6	NA	0.20 mg/l TCLP
---------	-----------	----	----------------

K106

Other K106 nonwastewaters that contain less than 260 mg/kg total mercury and are not residues from RMERC.

Mercury	7439-97-6	NA	0.025 mg/l TCLP
---------	-----------	----	-----------------

K106

All K106 wastewaters.

Mercury	7439-97-6	0.15	NA
---------	-----------	------	----

K107

Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.

NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
----	----	---	-------

K108

Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.

NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
----	----	---	-------

K109

Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.

NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
----	----	---	-------

K110

Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.

NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
----	----	---	-------

K111

Product washwaters from the production of dinitrotoluene via nitration of toluene.

2,4-Dinitrotoluene	121-14-2	0.32	140
2,6-Dinitrotoluene	606-20-2	0.55	28

K112

Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.

NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
----	----	---	-------

K113

Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.

NA	NA	CARBN; or CMBST	CMBST
----	----	--------------------	-------

K114

Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.

NA	NA	CARBN; or CMBST	CMBST
----	----	--------------------	-------

K115

Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.

Nickel	7440-02-0	3.98	11 mg/ℓ TCLP
NA	NA	CARBN; or CMBST	CMBST

K116

Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.

NA	NA	CARBN; or CMBST	CMBST
----	----	--------------------	-------

## K117

Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.

Methyl bromide (Bromo-methane)	74-83-9	0.11	15
Chloroform	67-66-3	0.046	6.0
Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15

## K118

Spent absorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.

Methyl bromide (Bromo-methane)	74-83-9	0.11	15
Chloroform	67-66-3	0.046	6.0
Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15

## K123

Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic 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
----	----	--	-------

## K126

Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts.

NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
----	----	--	-------

## K131

Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide.

Methyl bromide (Bromo- methane)	74-83-9	0.11	15
------------------------------------	---------	------	----

## K132

Spent absorbent and wastewater separator solids from the production of methyl bromide.

Methyl bromide (Bromo- methane)	74-83-9	0.11	15
------------------------------------	---------	------	----

## K136

Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.

Methyl bromide (Bromo- methane)	74-83-9	0.11	15
Chloroform	67-66-3	0.046	6.0
Ethylene dibromide (1,2- Dibromoethane)	106-93-4	0.028	15

## K141

Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke or the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank tar sludge from coking operations).

Benzene	71-43-2	0.14	10
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(a)pyrene	50-2-8	0.061	3.4
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)- fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)- fluoranthene)	207-08-9	0.11	6.8
Chrysene	218-01-9	0.059	3.4
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4

## K142

Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal.

Benzene	71-43-2	0.14	10
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(a)pyrene	50-32-8	0.061	3.4
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)-fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)-fluoranthene)	207-08-9	0.11	6.8
Chrysene	218-01-9	0.059	3.4
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4

## K143

Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal.

Benzene	71-43-2	0.14	10
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(a)pyrene	50-32-8	0.061	3.4
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)-fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)-fluoranthene)	207-08-9	0.11	6.8
Chrysene	218-01-9	0.059	3.4

## K144

Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal.

Benzene	71-43-2	0.14	10
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(a)pyrene	50-32-8	0.061	3.4
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)-fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)-fluoranthene)	207-08-9	0.11	6.8
Chrysene	218-01-9	0.059	3.4
Dibenz(a,h)anthracene	53-70-3	0.055	8.2



## K145

Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal.

Benzene	71-43-2	0.14	10
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(a)pyrene	50-32-8	0.061	3.4
Chrysene	218-01-9	0.059	3.4
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 coal tar refining.

Benzene	71-43-2	0.14	10
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(a)pyrene	50-32-8	0.061	3.4
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)-fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)-fluoranthene)	207-08-9	0.11	6.8
Chrysene	218-01-9	0.059	3.4
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4

## K148

Residues from coal tar distillation, including, but not limited to, still bottoms.

Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(a)pyrene	50-32-8	0.061	3.4
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)-fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)-fluoranthene)	207-08-9	0.11	6.8
Chrysene	218-01-9	0.059	3.4
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4

## K149

Distillation bottoms from the production of  $\alpha$ - (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. (This waste does not include still bottoms from the distillations of benzyl chloride.)

Chlorobenzene	108-90-7	0.057	6.0
Chloroform	67-66-3	0.046	6.0
Chloromethane	74-87-3	0.19	30
p-Dichlorobenzene	106-46-7	0.090	6.0

Hexachlorobenzene	118-74-1	0.055	10
Pentachlorobenzene	608-93-5	0.055	10
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
Toluene	108-88-3	0.080	10

#### K150

Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of  $\alpha$ - (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.

Carbon tetrachloride	56-23-5	0.057	6.0
Chloroform	67-66-3	0.046	6.0
Chloromethane	74-87-3	0.19	30
p-Dichlorobenzene	106-46-7	0.090	6.0
Hexachlorobenzene	118-74-1	0.055	10
Pentachlorobenzene	608-93-5	0.055	10
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
1,1,2,2- Tetrachloroethane	79-34-5	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
1,2,4-Trichlorobenzene	120-82-1	0.055	19

#### K151

Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of  $\alpha$ - (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.

Benzene	71-43-2	0.14	10
Carbon tetrachloride	56-23-5	0.057	6.0
Chloroform	67-66-3	0.046	6.0
Hexachlorobenzene	118-74-1	0.055	10
Pentachlorobenzene	608-93-5	0.055	10
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
Tetrachloroethylene	127-18-4	0.056	6.0
Toluene	108-88-3	0.080	10

#### K156

Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes.

Acetonitrile	75-05-8	5.6	1.8
Acetophenone	98-86-2	0.010	9.7
Aniline	62-53-3	0.81	14
Benomyl <sup>10</sup>	17804-35-2	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
Benzene	71-43-2	0.14	10

Carbaryl <sup>10</sup>	63-25-2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
Carbenzadim <sup>10</sup>	10605-21-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
Carbofuran <sup>10</sup>	1563-66-2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
Carbosulfan <sup>10</sup>	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 <sup>10</sup>	16752-77-5	0.028; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
Methylene chloride	75-09-2	0.089	30
Methyl ethyl ketone	78-93-3	0.28	36
Naphthalene	91-20-3	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyridine	110-86-1	0.014	16
Toluene	108-88-3	0.080	10
Triethylamine	121-44-8	0.081; or CMBST, CHOXD, BIODG or CARBN	1.5; or CMBST

#### K157

Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes.

Carbon tetrachloride	56-23-5	0.057	6.0
Chloroform	67-66-3	0.046	6.0
Chloromethane	74-87-3	0.19	30
Methomyl <sup>10</sup>	16752-77-5	0.028; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
Methylene chloride	75-09-2	0.089	30
Methyl ethyl ketone	78-93-3	0.28	36
Pyridine	110-86-1	0.014	16
Triethylamine	121-44-8	0.081; or CMBST, CHOXD, BIODG or CARBN	1.5; or CMBST

## K158

Baghouse dusts and filter/separation solids from the production of carbamates and carbamoyl oximes.

Benomyl <sup>10</sup>	17804-35-2	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBSTP
Benzene	71-43-2	0.14	10
Carbenzadim <sup>10</sup>	10605-21-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
Carbofuran <sup>10</sup>	1563-66-2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
Carbosulfan <sup>10</sup>	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
Phenol	108-95-2	0.039	6.2

## K159

Organics from the treatment of thiocarbamate wastes.<sup>10</sup>

Benzene	71-43-2	0.14	10
Butylate <sup>10</sup>	2008-41-5	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
EPTC (Eptam) <sup>10</sup>	759-94-4	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
Molinate <sup>10</sup>	2212-67-1	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
Pebulate <sup>10</sup>	1114-71-2	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
Vernolate <sup>10</sup>	1929-77-7	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST

## K161

Purification solids (including filtration, evaporation, and centrifugation solids), baghouse dust, and floor sweepings from the production of dithiocarbamate acids and their salts.

Antimony	7440-36-0	1.9	1.15 <sup>11</sup>
Arsenic	7440-38-2	1.4	5.0 <sup>11</sup>
Carbon disulfide	75-15-0	3.8	4.8 <sup>11</sup>

Dithiocarbamates (total) <sup>10</sup>	137-30-4	0.028; or CMBST, CHOXD, BIODG or CARBN	28; or CMBST
Lead	7439-92-1	0.69	0.75 <sup>11</sup>
Nickel	7440-02-0	3.98	11 <sup>11</sup>
Selenium	7782-49-2	0.82	5.7 <sup>11</sup>

#### K169

Crude oil tank sediment from petroleum refining operations.

Benz(a)anthracene	56-55-3	0.059	3.4
Benzene	71-43-2	0.14	10
Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
Chrysene	218-01-9	0.059	3.4
Ethyl benzene	100-41-4	0.057	10
Fluorene	86-73-7	0.059	3.4
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	81-05-8	0.059	5.6
Pyrene	129-00-0	0.067	8.2
Toluene (Methyl Benzene)	108-88-3	0.080	10
Xylenes (Total)	1330-20-7	0.32	30

#### K170

Clarified slurry oil sediment from petroleum refining operations.

Benz(a)anthracene	56-55-3	0.059	3.4
Benzene	71-43-2	0.14	10
Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
Chrysene	218-01-9	0.059	3.4
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
Ethyl benzene	100-41-4	0.057	10
Fluorene	86-73-7	0.059	3.4
Indeno(1,2,3,-cd)pyrene	193-39-5	0.0055	3.4
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	81-05-8	0.059	5.6
Pyrene	129-00-0	0.067	8.2
Toluene (Methyl Benzene)	108-88-3	0.080	10
Xylenes (Total)	1330-20-7	0.32	30

#### K171

Spent hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors. (This listing does not include inert support media.)

Benz(a)anthracene	56-55-3	0.059	3.4
Benzene	71-43-2	0.14	10
Chrysene	218-01-9	0.059	3.4
Ethyl benzene	100-41-4	0.057	10
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	81-05-8	0.059	5.6
Pyrene	129-00-0	0.067	8.2

Toluene (Methyl Benzene)	108-88-3	0.080	10
Xylenes (Total)	1330-20-7	0.32	30
Arsenic	7740-38-2	1.4	5 mg/l TCLP
Nickel	7440-02-0	3.98	11.0 mg/l TCLP
Vanadium	7440-62-2	4.3	1.6 mg/l TCLP
Reactive sulfides	NA	DEACT	DEACT

K172

Spent hydrorefining catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors. (This listing does not include inert support media.)

Benzene	71-43-2	0.14	10
Ethyl benzene	100-41-4	0.057	10
Toluene (Methyl Benzene)	108-88-3	0.080	10
Xylenes (Total)	1330-20-7	0.32	30
Antimony	7740-36-0	1.9	1.15 mg/l TCLP
Arsenic	7740-38-2	1.4	5 mg/l TCLP
Nickel	7440-02-0	3.98	11.0 mg/l TCLP
Vanadium	7440-62-2	4.3	1.6 mg/l TCLP
Reactive Sulfides	NA	DEACT	DEACT

K174

Wastewater treatment sludge 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-HpCDD)	35822-46-9	0.000035 or CMBST <sup>11</sup>	0.0025 or CMBST <sup>11</sup>
1,2,3,4,6,7,8-Heptachloro-dibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562-39-4	0.000035 or CMBST <sup>11</sup>	0.0025 or CMBST <sup>11</sup>
1,2,3,4,7,8,9-Heptachloro-dibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673-89-7	0.000035 or CMBST <sup>11</sup>	0.0025 or CMBST <sup>11</sup>
All hexachlorodibenzo-p-dioxins (HxCDDs)	34465-46-8	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
All hexachlorodibenzofurans (HxCDFs)	55684-94-1	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
1,2,3,4,6,7,8,9-Octachloro-dibenzo-p-dioxin (1,2,3,4,6,7,8,9-OCDD)	3268-87-9	0.000063 or CMBST <sup>11</sup>	0.005 or CMBST <sup>11</sup>
1,2,3,4,6,7,8,9-Octachloro-dibenzofuran (1,2,3,4,6,7,8,9-OCDF)	39001-02-0	0.000063 or CMBST <sup>11</sup>	0.005 or CMBST <sup>11</sup>
All pentachlorodibenzo-p-dioxins (PeCDDs)	36088-22-9	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
All pentachlorodibenzofurans (PeCDFs)	30402-15-4	0.000035 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>

All tetrachlorodibenzo-p-dioxins (TCDDs)	41903-57-5	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
All tetrachlorodibenzofurans (TCDFs)	55722-27-5	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
Arsenic	7440-36-0	1.4	5.0 mg/ℓ TCLP

#### K175

Wastewater treatment sludge from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process.

Mercury <sup>12</sup>	7439-97-6	NA	0.025 mg/ℓ TCLP
pH <sup>12</sup>		NA	pH≤6.0

#### K175

All K175 wastewaters.

Mercury	7439-97-6	0.15	NA
---------	-----------	------	----

#### K176

Baghouse filters from the production of antimony oxide, including filters from the production of intermediates e.g., antimony metal or crude antimony oxide).

Antimony	7440-36-0	1.9	1.15 mg/ℓ TCLP
Arsenic	7440-38-2	1.4	5.0 mg/ℓ TCLP
Cadmium	7440-43-9	0.69	0.11 mg/ℓ TCLP
Lead	7439-92-1	0.69	0.75 mg/ℓ TCLP
Mercury	7439-97-6	0.15	0.025 mg/ℓ TCLP

#### K177

Slag from the production of antimony oxide that is speculatively accumulated or disposed, including slag from the production of intermediates (e.g., antimony metal or crude antimony oxide).

Antimony	7440-36-0	1.9	1.15 mg/ℓ TCLP
Arsenic	7440-38-2	1.4	5.0 mg/ℓ TCLP
Lead	7439-92-1	0.69	0.75 mg/ℓ TCLP

#### K178

Residues from manufacturing and manufacturing-site storage of ferric chloride from acids formed during the production of titanium dioxide using the chloride-ilmenite process.

1,2,3,4,6,7,8-Heptachloro-dibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	35822-46-9	0.000035 or CMBST <sup>11</sup>	0.0025 or CMBST <sup>11</sup>
1,2,3,4,6,7,8-Heptachloro-dibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562-39-4	0.000035 or CMBST <sup>11</sup>	0.0025 or CMBST <sup>11</sup>
1,2,3,4,7,8,9-Heptachloro-dibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673-89-7	0.000035 or CMBST <sup>11</sup>	0.0025 or CMBST <sup>11</sup>
HxCDDs (All Hexachloro-dibenzo-p-dioxins)	34465-46-8	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>

HxCDFs (All Hexachloro-dibenzofurans)	55684-94-1	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
1,2,3,4,6,7,8,9-Octachloro-dibenzo-p-dioxin (1,2,3,4,6,7,8,9-OCDD)	3268-87-9	0.000063 or CMBST <sup>11</sup>	0.005 or CMBST <sup>11</sup>
1,2,3,4,6,7,8,9-Octachloro-dibenzofuran (OCDF)	39001-02-0	0.000063 or CMBST <sup>11</sup>	0.005 or CMBST <sup>11</sup>
PeCDDs (All Pentachloro-dibenzo-p-dioxins)	36088-22-9	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
PeCDFs (All Pentachloro-dibenzofurans)	30402-15-4	0.000035 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
TCDDs (All Tetrachloro-dibenzo-p-dioxins)	41903-57-5	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
TCDFs (All Tetrachloro-dibenzofurans)	55722-27-5	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
Thallium	7440-28-0	1.4	0.20 mg/l TCLP

#### K181

Nonwastewaters from the production of dyes or pigments (including nonwastewaters commingled at the point of generation with nonwastewaters from other processes) that, at the point of generation, contain mass loadings of any of the constituents identified in Section 721.132(c) which are equal to or greater than the corresponding Section 721.132(c) levels, as determined on a calendar-year basis.

Aniline	62-53-3	0.81	14
o-Anisidine (2-methoxyaniline)	90-04-0	0.010	0.66
4-Chloroaniline	106-47-8	0.46	16
p-Cresidine	120-71-8	0.010	0.66
2,4-Dimethylaniline (2,4-xylidine)	95-68-1	0.010	0.66
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
1,3-Phenylenediamine	108-45-2	0.010	0.66

#### P001

Warfarin, & salts, when present at concentrations greater than 0.3 percent.

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
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 Cyanides (Total) <sup>7</sup> Cyanides (Amenable) <sup>7</sup>	7440-39-3 57-12-5 57-12-5	NA 1.2 0.86	21 mg/ℓ TCLP 590 30
P014	Thiophenol (Benzene thiol). Thiophenol (Benzene thiol)	108-98-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P015	Beryllium dust. Beryllium	7440-41-7	RMETL; or RTHRM	RMETL; or RTHRM
P016	Dichloromethyl ether (Bis(chloromethyl) ether). Dichloromethyl ether	542-88-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P017	Bromoacetone. Bromoacetone	598-31-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

P018				
Brucine.				
Brucine	357-57-3	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
P020				
2-sec-Butyl-4,6-dinitrophenol (Dinoseb).				
2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	88-85-7	0.066		2.5
P021				
Calcium cyanide.				
Cyanides (Total) <sup>7</sup>	57-12-5	1.2		590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86		30
P022				
Carbon disulfide.				
Carbon disulfide	75-15-0	3.8		CMBST
Carbon disulfide; alternate <sup>6</sup> standard for nonwastewaters only	75-15-0	NA		4.8 mg/l TCLP
P023				
Chloroacetaldehyde.				
Chloroacetaldehyde	107-20-0	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
P024				
p-Chloroaniline.				
p-Chloroaniline	106-47-8	0.46		16
P026				
1-(o-Chlorophenyl)thiourea.				
1-(o-Chlorophenyl)thiourea	5344-82-1	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST

P027			
3-Chloropropionitrile.			
3-Chloropropionitrile	542-76-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P028			
Benzyl chloride.			
Benzyl chloride	100-44-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P029			
Copper cyanide.			
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30
P030			
Cyanides (soluble salts and complexes).			
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30
P031			
Cyanogen.			
Cyanogen	460-19-5	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
P033			
Cyanogen chloride.			
Cyanogen chloride	506-77-4	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
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
P040				
O,O-Diethyl-O-pyrazinyl-phosphorothioate.				
O,O-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).				
Diisopropylfluorophosphate (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
P047				
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
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)	16984-48-8	35	ADGAS fb NEUTR
P057	Fluoroacetamide.			
	Fluoroacetamide	640-19-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P058	Fluoroacetic acid, sodium salt.			
	Fluoroacetic acid, sodium salt	62-74-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P059	Heptachlor.			
	Heptachlor	76-44-8	0.0012	0.066
	Heptachlor epoxide	1024-57-3	0.016	0.066
P060	Isodrin.			
	Isodrin	465-73-6	0.021	0.066
P062	Hexaethyl tetraphosphate.			
	Hexaethyl tetraphosphate	757-58-4	CARBN; or CMBST	CMBST
P063	Hydrogen cyanide.			
	Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
	Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30
P064	Isocyanic acid, ethyl ester.			
	Isocyanic acid, ethyl ester	624-83-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

P065

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
---------	-----------	----	-------

P065

P065 (mercury fulminate) nonwastewaters that are either incinerator residues or are residues from RMERC; and contain greater than or equal to 260 mg/kg total mercury.

Mercury	7339-97-6	NA	RMERC
---------	-----------	----	-------

P065

P065 (mercury fulminate) nonwastewaters that are residues from RMERC and contain less than 260 mg/kg total mercury.

Mercury	7439-97-6	NA	0.20 mg/l TCLP
---------	-----------	----	----------------

P065

P065 (mercury fulminate) nonwastewaters that are incinerator residues and contain less than 260 mg/kg total mercury.

Mercury	7439-97-6	NA	0.025 mg/l TCLP
---------	-----------	----	-----------------

P065

All P065 (mercury fulminate) wastewaters.

Mercury	7439-97-6	0.15	NA
---------	-----------	------	----

P066

Methomyl.

Methomyl	16752-77-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
----------	------------	--	-------

P067

2-Methyl-aziridine.

2-Methyl-aziridine	75-55-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
--------------------	---------	--	-------

P068

Methyl hydrazine.

Methyl hydrazine	60-34-4	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED, or CMBST
------------------	---------	--	---------------------------



P069 2-Methylactonitrile. 2-Methylactonitrile	75-86-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P070 Aldicarb. Aldicarb	116-06-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P071 Methyl parathion. Methyl parathion	298-00-0	0.014	4.6
P072 1-Naphthyl-2-thiourea. 1-Naphthyl-2-thiourea	86-88-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P073 Nickel carbonyl. Nickel	7440-02-0	3.98	11 mg/ℓ TCLP
P074 Nickel cyanide. Cyanides (Total) <sup>7</sup> Cyanides (Amenable) <sup>7</sup> Nickel	57-12-5 57-12-5 7440-02-0	1.2 0.86 3.98	590 30 11 mg/ℓ TCLP
P075 Nicotine and salts. Nicotine and salts	54-11-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P076 Nitric oxide. Nitric oxide	10102-43-9	ADGAS	ADGAS

P077	p-Nitroaniline. p-Nitroaniline	100-01-6	0.028	28
P078	Nitrogen dioxide. Nitrogen dioxide	10102-44-0	ADGAS	ADGAS
P081	Nitroglycerin. Nitroglycerin	55-63-0	CHOXD; CHRED; CARBN; BIODG or CMBST	CHOXD; CHRED; or CMBST
P082	N-Nitrosodimethylamine. N-Nitrosodimethylamine	62-75-9	0.40	2.3
P084	N-Nitrosomethylvinylamine. N-Nitrosomethylvinylamine	4549-40-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P085	Octamethylpyrophosphoramidate. Octamethylpyrophosphoramidate	152-16-9	CARBN; or CMBST	CMBST
P087	Osmium tetroxide. Osmium tetroxide	20816-12-0	RMETL; or RTHRM	RMETL; or RTHRM
P088	Endothall. Endothall	145-73-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P089	Parathion. Parathion	56-38-2	0.014	4.6

P092

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
---------	-----------	----	--------------------

P092

P092 (phenyl mercuric acetate) nonwastewaters that are either incinerator residues or are residues from RMERC; and still contain greater than or equal to 260 mg/kg total mercury.

Mercury	7439-97-6	NA	RMERC
---------	-----------	----	-------

P092

P092 (phenyl mercuric acetate) nonwastewaters that are residues from RMERC and contain less than 260 mg/kg total mercury.

Mercury	7439-97-6	NA	0.20 mg/l TCLP
---------	-----------	----	----------------

P092

P092 (phenyl mercuric acetate) nonwastewaters that are incinerator residues and contain less than 260 mg/kg total mercury.

Mercury	7439-97-6	NA	0.025 mg/l TCLP
---------	-----------	----	-----------------

P092

All P092 (phenyl mercuric acetate) wastewaters.

Mercury	7439-97-6	0.15	NA
---------	-----------	------	----

P093

Phenylthiourea.

Phenylthiourea	103-85-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
----------------	----------	--	-------

P094

Phorate.

Phorate	298-02-2	0.021	4.6
---------	----------	-------	-----

P095

Phosgene.

Phosgene	75-44-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
----------	---------	--	-------

P096

Phosphine.

Phosphine	7803-51-2	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
-----------	-----------	---------------------------	---------------------------

P097			
Famphur.			
Famphur	52-85-7	0.017	15
P098			
Potassium cyanide.			
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30
P099			
Potassium silver cyanide.			
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30
Silver	7440-22-4	0.43	0.14 mg/ℓ TCLP
P101			
Ethyl cyanide (Propanenitrile).			
Ethyl cyanide (Propanenitrile)	107-12-0	0.24	360
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) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30
Silver	7440-22-4	0.43	0.14 mg/ℓ TCLP
P105			
Sodium azide.			
Sodium azide	26628-22-8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P106			
Sodium cyanide.			
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30

P108	Strychnine and salts. Strychnine and salts	57-24-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P109	Tetraethyldithiopyrophosphate. Tetraethyldithiopyrophosphate	3689-24-5	CARBN; or CMBST	CMBST
P110	Tetraethyl lead. Lead	7439-92-1	0.69	0.75 mg/l TCLP
P111	Tetraethylpyrophosphate. Tetraethylpyrophosphate	107-49-3	CARBN; or CMBST	CMBST
P112	Tetranitromethane. Tetranitromethane	509-14-8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P113	Thallic oxide. Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
P114	Thallium selenite. Selenium	7782-49-2	0.82	5.7 mg/l TCLP
P115	Thallium (I) sulfate. Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
P116	Thiosemicarbazide. Thiosemicarbazide	79-19-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

P118 Trichloromethanethiol. Trichloromethanethiol	75-70-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P119 Ammonium vanadate. Vanadium (measured in wastewaters only)	7440-62-2	4.3	STABL
P120 Vanadium pentoxide. Vanadium (measured in wastewaters only)	7440-62-2	4.3	STABL
P121 Zinc cyanide. Cyanides (Total) <sup>7</sup> Cyanides (Amenable) <sup>7</sup>	57-12-5 57-12-5	1.2 0.86	590 30
P122 Zinc phosphide Zn <sub>3</sub> P <sub>2</sub> , when present at concentrations greater than 10 percent. Zinc Phosphide	1314-84-7	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
P123 Toxaphene. Toxaphene	8001-35-2	0.0095	2.6
P127 Carbofuran. <sup>10</sup> Carbofuran	1563-66-2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
P128 Mexacarbate. <sup>10</sup> Mexacarbate	315-18-4	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P185 Tirpate. <sup>10</sup> Tirpate	26419-73-8	0.056; or CMBST, CHOXD, BIODG or CARBN	0.28; or CMBST

P188 Physostigmine salicylate. <sup>10</sup> Physostigmine salicylate	57-64-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P189 Carbosulfan. <sup>10</sup> Carbosulfan	55285-14-8	0.028; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P190 Metolcarb. <sup>10</sup> Metolcarb	1129-41-5	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P191 Dimetilan. <sup>10</sup> Dimetilan	644-64-4	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P192 Isolan. <sup>10</sup> Isolan	119-38-0	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P194 Oxamyl. <sup>10</sup> Oxamyl	23135-22-0	0.056; or CMBST, CHOXD, BIODG or CARBN	0.28; or CMBST
P196 Manganese dimethyldithiocarbamates (total). <sup>10</sup> Dithiocarbamates (total)	NA	0.028; or CMBST, CHOXD, BIODG or CARBN	28; or CMBST
P197 Formparanate. <sup>10</sup> Formparanate	17702-57-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST

P198 Formetanate hydrochloride. <sup>10</sup> Formetanate hydrochloride	23422-53-9	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P199 Methiocarb. <sup>10</sup> Methiocarb	2032-65-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P201 Promecarb. <sup>10</sup> Promecarb	2631-37-0	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P202 m-Cumenyl methylcarbamate. <sup>10</sup> m-Cumenyl methylcarbamate	64-00-6	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P203 Aldicarb sulfone. <sup>10</sup> Aldicarb sulfone	1646-88-4	0.056; or CMBST, CHOXD, BIODG or CARBN	0.28; or CMBST
P204 Physostigmine. <sup>10</sup> Physostigmine	57-47-6	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P205 Ziram. <sup>10</sup> Dithiocarbamates (total)	NA	0.028; or CMBST, CHOXD, BIODG or CARBN	28; or CMBST



U001 Acetaldehyde. Acetaldehyde	75-07-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U002 Acetone. Acetone	67-64-1	0.28	160
U003 Acetonitrile. Acetonitrile Acetonitrile; alternate <sup>6</sup> standard for nonwastewaters only	75-05-8 75-05-8	5.6 NA	CMBST 38
U004 Acetophenone. Acetophenone	98-86-2	0.010	9.7
U005 2-Acetylaminofluorene. 2-Acetylaminofluorene	53-96-3	0.059	140
U006 Acetyl chloride. Acetyl chloride	75-36-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U007 Acrylamide. Acrylamide	79-06-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U008 Acrylic acid. Acrylic acid	79-10-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

U009 Acrylonitrile. Acrylonitrile	107-13-1	0.24	84
U010 Mitomycin C. Mitomycin C	50-07-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U011 Amitrole. Amitrole	61-82-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U012 Aniline. Aniline	62-53-3	0.81	14
U014 Auramine. Auramine	492-80-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U015 Azaserine. Azaserine	115-02-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U016 Benz(c)acridine. Benz(c)acridine	225-51-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

U017				
Benzal chloride.				
Benzal chloride	98-87-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U018				
Benz(a)anthracene.				
Benz(a)anthracene	56-55-3	0.059	3.4	
U019				
Benzene.				
Benzene	71-43-2	0.14	10	
U020				
Benzenesulfonyl chloride.				
Benzenesulfonyl chloride	98-09-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U021				
Benzidine.				
Benzidine	92-87-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U022				
Benzo(a)pyrene.				
Benzo(a)pyrene	50-32-8	0.061	3.4	
U023				
Benzotrichloride.				
Benzotrichloride	98-07-7	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST	
U024				
bis(2-Chloroethoxy)methane.				
bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2	
U025				
bis(2-Chloroethyl) ether.				
bis(2-Chloroethyl) ether	111-44-4	0.033	6.0	

U026	Chlornaphazine. Chlornaphazine	494-03-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U027	bis(2-Chloroisopropyl) ether. bis(2-Chloroisopropyl) ether	39638-32-9	0.055	7.2
U028	bis(2-Ethylhexyl) phthalate. bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
U029	Methyl bromide (Bromomethane). Methyl bromide (Bromo- methane)	74-83-9	0.11	15
U030	4-Bromophenyl phenyl ether. 4-Bromophenyl phenyl ether	101-55-3	0.055	15
U031	n-Butyl alcohol. n-Butyl alcohol	71-36-3	5.6	2.6
U032	Calcium chromate. Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
U033	Carbon oxyfluoride. Carbon oxyfluoride	353-50-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U034	Trichloroacetaldehyde (Chloral). Trichloroacetaldehyde (Chloral)	75-87-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

U035	Chlorambucil. Chlorambucil	305-03-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U036	Chlordane. Chlordane ( $\alpha$ and $\chi$ isomers)	57-74-9	0.0033	0.26
U037	Chlorobenzene. Chlorobenzene	108-90-7	0.057	6.0
U038	Chlorobenzilate. Chlorobenzilate	510-15-6	0.10	CMBST
U039	p-Chloro-m-cresol. p-Chloro-m-cresol	59-50-7	0.018	14
U041	Epichlorohydrin (1-Chloro-2,3-epoxypropane). Epichlorohydrin (1-Chloro-2,3- epoxypropane)	106-89-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U042	2-Chloroethyl vinyl ether. 2-Chloroethyl vinyl ether	110-75-8	0.062	CMBST
U043	Vinyl chloride. Vinyl chloride	75-01-4	0.27	6.0
U044	Chloroform. Chloroform	67-66-3	0.046	6.0
U045	Chloromethane (Methyl chloride). Chloromethane (Methyl chloride)	74-87-3	0.19	30

U046			
Chloromethyl methyl ether.			
Chloromethyl methyl ether	107-30-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U047			
2-Chloronaphthalene.			
2-Chloronaphthalene	91-58-7	0.055	5.6
U048			
2-Chlorophenol.			
2-Chlorophenol	95-57-8	0.044	5.7
U049			
4-Chloro-o-toluidine hydrochloride.			
4-Chloro-o-toluidine hydrochloride	3165-93-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U050			
Chrysene.			
Chrysene	218-01-9	0.059	3.4
U051			
Creosote.			
Naphthalene	91-20-3	0.059	5.6
Pentachlorophenol	87-86-5	0.089	7.4
Phenanthrene	85-01-8	0.059	5.6
Pyrene	129-00-0	0.067	8.2
Toluene	108-88-3	0.080	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Lead	7439-92-1	0.69	0.75 mg/l TCLP
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
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 <sup>6</sup> standard for nonwastewaters only	108-94-1	NA	0.75 mg/l TCLP
U058 Cyclophosphamide. Cyclophosphamide	50-18-0	CARBN; or CMBST	CMBST
U059 Daunomycin. Daunomycin	20830-81-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

U060			
DDD.			
o,p'-DDD	53-19-0	0.023	0.087
p,p'-DDD	72-54-8	0.023	0.087
U061			
DDT.			
o,p'-DDT	789-02-6	0.0039	0.087
p,p'-DDT	50-29-3	0.0039	0.087
o,p'-DDD	53-19-0	0.023	0.087
p,p'-DDD	72-54-8	0.023	0.087
o,p'-DDE	3424-82-6	0.031	0.087
p,p'-DDE	72-55-9	0.031	0.087
U062			
Diallate.			
Diallate	2303-16-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U063			
Dibenz(a,h)anthracene.			
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
U064			
Dibenz(a,i)pyrene.			
Dibenz(a,i)pyrene	189-55-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U066			
1,2-Dibromo-3-chloropropane.			
1,2-Dibromo-3-chloropropane	96-12-8	0.11	15
U067			
Ethylene dibromide (1,2-Dibromoethane).			
Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
U068			
Dibromomethane.			
Dibromomethane	74-95-3	0.11	15
U069			
Di-n-butyl phthalate.			
Di-n-butyl phthalate	84-74-2	0.057	28



U070			
o-Dichlorobenzene.			
o-Dichlorobenzene	95-50-1	0.088	6.0
U071			
m-Dichlorobenzene.			
m-Dichlorobenzene	541-73-1	0.036	6.0
U072			
p-Dichlorobenzene.			
p-Dichlorobenzene	106-46-7	0.090	6.0
U073			
3,3'-Dichlorobenzidine.			
3,3'-Dichlorobenzidine	91-94-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U074			
1,4-Dichloro-2-butene.			
cis-1,4-Dichloro-2-butene	1476-11-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
trans-1,4-Dichloro-2-butene	764-41-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U075			
Dichlorodifluoromethane.			
Dichlorodifluoromethane	75-71-8	0.23	7.2
U076			
1,1-Dichloroethane.			
1,1-Dichloroethane	75-34-3	0.059	6.0
U077			
1,2-Dichloroethane.			
1,2-Dichloroethane	107-06-2	0.21	6.0
U078			
1,1-Dichloroethylene.			
1,1-Dichloroethylene	75-35-4	0.025	6.0

U079				
1,2-Dichloroethylene.				
trans-1,2-Dichloroethylene	156-60-5	0.054		30
U080				
Methylene chloride.				
Methylene chloride	75-09-2	0.089		30
U081				
2,4-Dichlorophenol.				
2,4-Dichlorophenol	120-83-2	0.044		14
U082				
2,6-Dichlorophenol.				
2,6-Dichlorophenol	87-65-0	0.044		14
U083				
1,2-Dichloropropane.				
1,2-Dichloropropane	78-87-5	0.85		18
U084				
1,3-Dichloropropylene.				
cis-1,3-Dichloropropylene	10061-01-5	0.036		18
trans-1,3-Dichloropropylene	10061-02-6	0.036		18
U085				
1,2,3,4-Diepoxybutane				
1,2,3,4-Diepoxybutane	1464-53-5	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U086				
N,N'-Diethylhydrazine.				
N,N'-Diethylhydrazine	1615-80-1	CHOXD; CHRED; CARBN; BIODG; or CMBST		CHOXD; CHRED; or CMBST
U087				
O,O-Diethyl-S-methyldithiophosphate.				
O,O-Diethyl-S-methyldithio- phosphate	3288-58-2	CARBN; or CMBST		CMBST
U088				
Diethyl phthalate.				
Diethyl phthalate	84-66-2	0.20		28

U089 Diethyl stilbestrol. Diethyl stilbestrol	56-53-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U090 Dihydrosafrole. Dihydrosafrole	94-58-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U091 3,3'-Dimethoxybenzidine. 3,3'-Dimethoxybenzidine	119-90-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U092 Dimethylamine. Dimethylamine	124-40-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U093 p-Dimethylaminoazobenzene. p-Dimethylaminoazobenzene	60-11-7	0.13	CMBST
U094 7,12-Dimethylbenz(a)anthracene. 7,12-Dimethylbenz(a)anthracene	57-97-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U095 3,3'-Dimethylbenzidine. 3,3'-Dimethylbenzidine	119-93-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

U096				
$\alpha$ , $\alpha$ -Dimethyl benzyl hydroperoxide.				
$\alpha$ , $\alpha$ -Dimethyl benzyl hydroperoxide	80-15-9	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST	
U097				
Dimethylcarbamoyl chloride.				
Dimethylcarbamoyl chloride	79-44-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U098				
1,1-Dimethylhydrazine.				
1,1-Dimethylhydrazine	57-14-7	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST	
U099				
1,2-Dimethylhydrazine.				
1,2-Dimethylhydrazine	540-73-8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST	
U101				
2,4-Dimethylphenol.				
2,4-Dimethylphenol	105-67-9	0.036	14	
U102				
Dimethyl phthalate.				
Dimethyl phthalate	131-11-3	0.047	28	
U103				
Dimethyl sulfate.				
Dimethyl sulfate	77-78-1	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST	
U105				
2,4-Dinitrotoluene.				
2,4-Dinitrotoluene	121-14-2	0.32	140	
U106				
2,6-Dinitrotoluene.				
2,6-Dinitrotoluene	606-20-2	0.55	28	

U107				
Di-n-octyl phthalate.				
Di-n-octyl phthalate	117-84-0	0.017		28
U108				
1,4-Dioxane.				
1,4-Dioxane	123-91-1	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
1,4-Dioxane; alternate <sup>6</sup> standard for nonwastewaters only	123-91-1	12.0		170
U109				
1,2-Diphenylhydrazine.				
1,2-Diphenylhydrazine	122-66-7	CHOXD; CHRED; CARBN; BIODG; or CMBST		CHOXD; CHRED; or CMBST
1,2-Diphenylhydrazine; alternate <sup>6</sup> standard for wastewaters only	122-66-7	0.087		NA
U110				
Dipropylamine.				
Dipropylamine	142-84-7	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U111				
Di-n-propylnitrosamine.				
Di-n-propylnitrosamine	621-64-7	0.40		14
U112				
Ethyl acetate.				
Ethyl acetate	141-78-6	0.34		33
U113				
Ethyl acrylate.				
Ethyl acrylate	140-88-5	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST

U114				
Ethylenebisdithiocarbamic acid salts and esters.				
Ethylenebisdithiocarbamic acid	111-54-6	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U115				
Ethylene oxide.				
Ethylene oxide	75-21-8	(WETOX or CHOXD) fb CARBN; or CMBST		CHOXD; or CMBST
Ethylene oxide; alternate <sup>6</sup> standard for wastewaters only	75-21-8	0.12		NA
U116				
Ethylene thiourea.				
Ethylene thiourea	96-45-7	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U117				
Ethyl ether.				
Ethyl ether	60-29-7	0.12		160
U118				
Ethyl methacrylate.				
Ethyl methacrylate	97-63-2	0.14		160
U119				
Ethyl methane sulfonate.				
Ethyl methane sulfonate	62-50-0	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U120				
Fluoranthene.				
Fluoranthene	206-44-0	0.068		3.4
U121				
Trichloromonofluoromethane.				
Trichloromonofluoromethane	75-69-4	0.020		30

U122 Formaldehyde. Formaldehyde	50-00-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U123 Formic acid. Formic acid	64-18-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U124 Furan. Furan	110-00-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U125 Furfural. Furfural	98-01-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U126 Glycidylaldehyde. Glycidylaldehyde	765-34-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U127 Hexachlorobenzene. Hexachlorobenzene	118-74-1	0.055	10
U128 Hexachlorobutadiene. Hexachlorobutadiene	87-68-3	0.055	5.6
U129 Lindane. $\alpha$ -BHC $\beta$ -BHC	319-84-6 319-85-7	0.00014 0.00014	0.066 0.066

δ-BHC	319-86-8	0.023	0.066
γ-BHC (Lindane)	58-89-9	0.0017	0.066
U130			
Hexachlorocyclopentadiene. Hexachlorocyclopentadiene	77-47-4	0.057	2.4
U131			
Hexachloroethane. Hexachloroethane	67-72-1	0.055	30
U132			
Hexachlorophene. Hexachlorophene	70-30-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
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	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-cd)pyrene	193-39-5	0.0055	3.4
U138			
Iodomethane. Iodomethane	74-88-4	0.19	65



U140	Isobutyl alcohol. Isobutyl alcohol	78-83-1	5.6	170
U141	Isosafrole. Isosafrole	120-58-1	0.081	2.6
U142	Kepone. Kepone	143-50-8	0.0011	0.13
U143	Lasiocarpine. Lasiocarpine	303-34-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U144	Lead acetate. Lead	7439-92-1	0.69	0.75 mg/l TCLP
U145	Lead phosphate. Lead	7439-92-1	0.69	0.75 mg/l TCLP
U146	Lead subacetate. Lead	7439-92-1	0.69	0.75 mg/l TCLP
U147	Maleic anhydride. Maleic anhydride	108-31-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U148	Maleic hydrazide. Maleic hydrazide	123-33-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

U149 Malononitrile. Malononitrile	109-77-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U150 Melphalan. Melphalan	148-82-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U151 U151 (mercury) nonwastewaters that contain greater than or equal to 260 mg/kg total mercury. Mercury	7439-97-6	NA	RMERC
U151 U151 (mercury) nonwastewaters that contain less than 260 mg/kg total mercury and that are residues from RMERC only. Mercury	7439-97-6	NA	0.20 mg/l TCLP
U151 U151 (mercury) nonwastewaters that contain less than 260 mg/kg total mercury and that are not residues from RMERC only. Mercury	7439-97-6	NA	0.025 mg/l TCLP
U151 All U151 (mercury) wastewater. Mercury	7439-97-6	0.15	NA
U151 Elemental Mercury Contaminated with Radioactive Materials. Mercury	7439-97-6	NA	AMLGM
U152 Methacrylonitrile. Methacrylonitrile	126-98-7	0.24	84
U153 Methanethiol. Methanethiol	74-93-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

U154				
Methanol.				
Methanol	67-56-1	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
Methanol; alternate <sup>6</sup> set of standards for both wastewaters and nonwastewaters	67-56-1	5.6		0.75 mg/l TCLP
U155				
Methapyrilene.				
Methapyrilene	91-80-5	0.081		1.5
U156				
Methyl chlorocarbonate.				
Methyl chlorocarbonate	79-22-1	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U157				
3-Methylcholanthrene.				
3-Methylcholanthrene	56-49-5	0.0055		15
U158				
4,4'-Methylene bis(2-chloroaniline).				
4,4'-Methylene bis(2-chloroaniline)	101-14-4	0.50		30
U159				
Methyl ethyl ketone.				
Methyl ethyl ketone	78-93-3	0.28		36
U160				
Methyl ethyl ketone peroxide.				
Methyl ethyl ketone peroxide	1338-23-4	CHOXD; CHRED; CARBN; BIODG; or CMBST		CHOXD; CHRED; or CMBST
U161				
Methyl isobutyl ketone.				
Methyl isobutyl ketone	108-10-1	0.14		33
U162				
Methyl methacrylate.				
Methyl methacrylate	80-62-6	0.14		160

U163				
N-Methyl-N'-nitro-N-nitrosoguanidine.				
N-Methyl-N'-nitro-N-nitroso-guanidine	70-25-7	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U164				
Methylthiouracil.				
Methylthiouracil	56-04-2	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U165				
Naphthalene.				
Naphthalene	91-20-3	0.059		5.6
U166				
1,4-Naphthoquinone.				
1,4-Naphthoquinone	130-15-4	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U167				
1-Naphthylamine.				
1-Naphthylamine	134-32-7	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U168				
2-Naphthylamine.				
2-Naphthylamine	91-59-8	0.52		CMBST
U169				
Nitrobenzene.				
Nitrobenzene	98-95-3	0.068		14
U170				
p-Nitrophenol.				
p-Nitrophenol	100-02-7	0.12		29

U171 2-Nitropropane. 2-Nitropropane	79-46-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U172 N-Nitrosodi-n-butylamine. N-Nitrosodi-n-butylamine	924-16-3	0.40	17
U173 N-Nitrosodiethanolamine. N-Nitrosodiethanolamine	1116-54-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U174 N-Nitrosodiethylamine. N-Nitrosodiethylamine	55-18-5	0.40	28
U176 N-Nitroso-N-ethylurea. N-Nitroso-N-ethylurea	759-73-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U177 N-Nitroso-N-methylurea. N-Nitroso-N-methylurea	684-93-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U178 N-Nitroso-N-methylurethane. N-Nitroso-N-methylurethane	615-53-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U179 N-Nitrosopiperidine. N-Nitrosopiperidine	100-75-4	0.013	35

U180				
N-Nitrosopyrrolidine.				
N-Nitrosopyrrolidine	930-55-2	0.013		35
U181				
5-Nitro-o-toluidine.				
5-Nitro-o-toluidine	99-55-8	0.32		28
U182				
Paraldehyde.				
Paraldehyde	123-63-7	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U183				
Pentachlorobenzene.				
Pentachlorobenzene	608-93-5	0.055		10
U184				
Pentachloroethane.				
Pentachloroethane	76-01-7	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
Pentachloroethane; alternate <sup>6</sup> standards for both wastewaters and nonwastewaters	76-01-7	0.055		6.0
U185				
Pentachloronitrobenzene.				
Pentachloronitrobenzene	82-68-8	0.055		4.8
U186				
1,3-Pentadiene.				
1,3-Pentadiene	504-60-9	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U187				
Phenacetin.				
Phenacetin	62-44-2	0.081		16
U188				
Phenol.				
Phenol	108-95-2	0.039		6.2

U189 Phosphorus sulfide. Phosphorus sulfide	1314-80-3	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
U190 Phthalic anhydride. Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28
Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28
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

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
U204 Selenium dioxide. Selenium	7782-49-2	0.82	5.7 mg/l TCLP
U205 Selenium sulfide. Selenium	7782-49-2	0.82	5.7 mg/l TCLP
U206 Streptozotocin. Streptozotocin	18883-66-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U207 1,2,4,5-Tetrachlorobenzene. 1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
U208 1,1,1,2-Tetrachloroethane. 1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0



U209	1,1,2,2-Tetrachloroethane.			
	1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0
U210	Tetrachloroethylene.			
	Tetrachloroethylene	127-18-4	0.056	6.0
U211	Carbon tetrachloride.			
	Carbon tetrachloride	56-23-5	0.057	6.0
U213	Tetrahydrofuran.			
	Tetrahydrofuran	109-99-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U214	Thallium (I) acetate.			
	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U215	Thallium (I) carbonate.			
	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U216	Thallium (I) chloride.			
	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U217	Thallium (I) nitrate.			
	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U218	Thioacetamide.			
	Thioacetamide	62-55-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

U219 Thiourea. Thiourea	62-56-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U220 Toluene. Toluene	108-88-3	0.080	10
U221 Toluenediamine. Toluenediamine	25376-45-8	CARBN; or CMBST	CMBST
U222 o-Toluidine hydrochloride. o-Toluidine hydrochloride	636-21-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U223 Toluene diisocyanate. Toluene diisocyanate	26471-62-5	CARBN; or CMBST	CMBST
U225 Bromoform (Tribromomethane). Bromoform (Tribromomethane)	75-25-2	0.63	15
U226 1,1,1-Trichloroethane. 1,1,1-Trichloroethane	71-55-6	0.054	6.0
U227 1,1,2-Trichloroethane. 1,1,2-Trichloroethane	79-00-5	0.054	6.0
U228 Trichloroethylene. Trichloroethylene	79-01-6	0.054	6.0

U234				
1,3,5-Trinitrobenzene.				
1,3,5-Trinitrobenzene	99-35-4	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U235				
tris-(2,3-Dibromopropyl)-phosphate.				
tris-(2,3-Dibromopropyl)- phosphate	126-72-7	0.11		0.10
U236				
Trypan Blue.				
Trypan Blue	72-57-1	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U237				
Uracil mustard.				
Uracil mustard	66-75-1	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U238				
Urethane (Ethyl carbamate).				
Urethane (Ethyl carbamate)	51-79-6	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U239				
Xylenes.				
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32		30
U240				
2,4-D (2,4-Dichlorophenoxyacetic acid).				
2,4-D (2,4-Dichlorophenoxy- acetic acid)	94-75-7	0.72		10
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
U244	Thiram. Thiram	137-26-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U246	Cyanogen bromide. Cyanogen bromide	506-68-3	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
U247	Methoxychlor. Methoxychlor	72-43-5	0.25	0.18
U248	Warfarin, & salts, when present at concentrations of 0.3 percent or less. Warfarin	81-81-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U249	Zinc phosphide, Zn <sub>3</sub> P <sub>2</sub> , when present at concentrations of 10 percent or less. Zinc Phosphide	1314-84-7	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
U271	Benomyl. <sup>10</sup> Benomyl	17804-35-2	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U278	Bendiocarb. <sup>10</sup> Bendiocarb	22781-23-3	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST

U279 Carbaryl. <sup>10</sup> Carbaryl	63-25-2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
U280 Barban. <sup>10</sup> 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
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. <sup>10</sup> Bendiocarb phenol	22961-82-6	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST

U367 Carbofuran phenol. <sup>10</sup> Carbofuran phenol	1563-38-8	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U372 Carbendazim. <sup>10</sup> Carbendazim	10605-21-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U373 Propham. <sup>10</sup> Propham	122-42-9	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U387 Prosulfocarb. <sup>10</sup> Prosulfocarb	52888-80-9	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U389 Triallate. <sup>10</sup> Triallate	2303-17-5	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U394 A2213. <sup>10</sup> A2213	30558-43-1	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U395 Diethylene glycol, dicarbamate. <sup>10</sup> Diethylene glycol, dicarbamate	5952-26-1	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U404 Triethylamine. <sup>10</sup> Triethylamine	121-44-8	0.081; or CMBST, CHOXD, BIODG or CARBN	1.5; or CMBST

U409 Thiophanate-methyl. <sup>10</sup> Thiophanate-methyl	23564-05-8	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U410 Thiodicarb. <sup>10</sup> Thiodicarb	59669-26-0	0.019; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U411 Propoxur. <sup>10</sup> Propoxur	114-26-1	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST

Notes:

- 1 The waste descriptions provided in this table do not replace waste descriptions in 35 Ill. Adm. Code 721. 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 USEPA 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 Table C, “Technology Codes and Descriptions of Technology-Based Standards”. “fb” inserted between USEPA hazardous waste numbers denotes “followed by”, so that the first-listed treatment is followed by the second-listed treatment. A semicolon (;) separates alternative treatment schemes.
- 5 Except for Metals (EP or TCLP) and Cyanides (Total and Amenable), the nonwastewater treatment standards expressed as a concentration were established, in part, based on incineration in units operated in accordance with the technical requirements of Subpart O of 35 Ill. Adm. Code 724 or Subpart O of 35 Ill. Adm. Code 725 or based on combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in Section 728.140(d). All concentration standards for nonwastewaters are based on analysis of grab samples.
- 6 Where an alternate treatment standard or set of alternate standards has been indicated, a facility may comply with this alternate standard, but only for the Treatment or Regulatory

Subcategory or physical form (i.e., wastewater or nonwastewater) specified for that alternate standard.

- 7 Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010C or 9012B, in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a), with a sample size of 10 grams and a distillation time of one hour and 15 minutes.
- 8 These wastes, when rendered non-hazardous and then subsequently managed in CWA or CWA-equivalent systems, are not subject to treatment standards. (See Section 728.101(c)(3) and (c)(4).)
- 9 These wastes, when rendered non-hazardous and then subsequently injected in a Class I SDWA well, are not subject to treatment standards. (See 35 Ill. Adm. Code 738.101(d).)
- 10 The treatment standard for this waste may be satisfied by either meeting the constituent concentrations in the table in this Section or by treating the waste by the specified technologies: combustion, as defined by the technology code CMBST at Table C for nonwastewaters; and biodegradation, as defined by the technology code BIODG; carbon adsorption, as defined by the technology code CARBN; chemical oxidation, as defined by the technology code CHOXD; or combustion, as defined as technology code CMBST, at Table C, for wastewaters.
- 11 For these wastes, the definition of CMBST is limited to any of the following that have obtained a determination of equivalent treatment under Section 728.142(b): (1) combustion units operating under 35 Ill. Adm. Code 726, (2) combustion units permitted under Subpart O of 35 Ill. Adm. Code 724, or (3) combustion units operating under Subpart O of 35 Ill. Adm. Code 725.
- 12 Disposal of USEPA hazardous waste number K175 waste that has complied with all applicable Section 728.140 treatment standards must also be macroencapsulated in accordance with Table F, unless the waste is placed in either of the following types of facilities:
  - a) A RCRA Subtitle C monofill containing only K175 wastes that meet all applicable 40 CFR 268.40 treatment standards; or
  - b) A dedicated RCRA Subtitle C landfill cell in which all other wastes being co-disposed are at  $\text{pH} \leq 6.0$ .

BOARD NOTE: Derived from table to 40 CFR 268.40 (2017).

NA means not applicable.

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)



**Section 728.TABLE U Universal Treatment Standards (UTS)**

Regulated Constituent- Common Name	CAS <sup>1</sup> No.	Wastewater Standard Concentration <sup>2</sup> (in mg/l)	Nonwastewater Standard Concentration <sup>3</sup> (in mg/kg unless noted as “mg/l TCLP”)
Acenaphthylene	208-96-8	0.059	3.4
Acenaphthene	83-32-9	0.059	3.4
Acetone	67-64-1	0.28	160
Acetonitrile	75-05-8	5.6	38
Acetophenone	96-86-2	0.010	9.7
2-Acetylaminofluorene	53-96-3	0.059	140
Acrolein	107-02-8	0.29	NA
Acrylamide	79-06-1	19	23
Acrylonitrile	107-13-1	0.24	84
Aldrin	309-00-2	0.021	0.066
4-Aminobiphenyl	92-67-1	0.13	NA
Aniline	62-53-3	0.81	14
o-Anisidine (2-methoxy- aniline)	90-04-0	0.010	0.66
Anthracene	120-12-7	0.059	3.4
Aramite	140-57-8	0.36	NA
α-BHC	319-84-6	0.00014	0.066
β-BHC	319-85-7	0.00014	0.066
δ-BHC	319-86-8	0.023	0.066
γ-BHC	58-89-9	0.0017	0.066
Benz(a)anthracene	56-55-3	0.059	3.4
Benzal chloride	98-87-3	0.055	6.0
Benzene	71-43-2	0.14	10
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
Benzo(a)pyrene	50-32-8	0.061	3.4
Bromodichloromethane	75-27-4	0.35	15
Methyl bromide (Bromo- methane)	74-83-9	0.11	15
4-Bromophenyl phenyl ether	101-55-3	0.055	15
n-Butyl alcohol	71-36-3	5.6	2.6
Butyl benzyl phthalate	85-68-7	0.017	28
2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	88-85-7	0.066	2.5

Carbon disulfide	75-15-0	3.8	4.8 mg/ℓ TCLP
Carbon tetrachloride	56-23-5	0.057	6.0
Chlordane (α and γ isomers)	57-74-9	0.0033	0.26
p-Chloroaniline	106-47-8	0.46	16
Chlorobenzene	108-90-7	0.057	6.0
Chlorobenzilate	510-15-6	0.10	NA
2-Chloro-1,3-butadiene	126-99-8	0.057	0.28
p-Chloro-m-cresol	59-50-7	0.018	14
Chlorodibromomethane	124-48-1	0.057	15
Chloroethane	75-00-3	0.27	6.0
bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2
bis(2-Chloroethyl) ether	111-44-4	0.033	6.0
2-Chloroethyl vinyl ether	110-75-8	0.062	NA
Chloroform	67-66-3	0.046	6.0
bis(2-Chloroisopropyl) ether	39638-32-9	0.055	7.2
Chloromethane (Methyl chloride)	74-87-3	0.19	30
2-Chloronaphthalene	91-58-7	0.055	5.6
2-Chlorophenol	95-57-8	0.044	5.7
3-Chloropropylene	107-05-1	0.036	30
Chrysene	218-01-9	0.059	3.4
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	0.75 mg/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
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-chloro-propane	96-12-8	0.11	15
1,2-Dibromoethane/Ethylene dibromide	106-93-4	0.028	15
Dibromomethane	74-95-3	0.11	15
m-Dichlorobenzene	541-73-1	0.036	6.0
o-Dichlorobenzene	95-50-1	0.088	6.0
p-Dichlorobenzene	106-46-7	0.090	6.0
Dichlorodifluoromethane	75-71-8	0.23	7.2
1,1-Dichloroethane	75-34-3	0.059	6.0

1,2-Dichloroethane	107-06-2	0.21	6.0
1,1-Dichloroethylene	75-35-4	0.025	6.0
trans-1,2-Dichloroethylene	156-60-5	0.054	30
2,4-Dichlorophenol	120-83-2	0.044	14
2,6-Dichlorophenol	87-65-0	0.044	14
2,4-Dichlorophenoxyacetic acid/2,4-D	94-75-7	0.72	10
1,2-Dichloropropane	78-87-5	0.85	18
cis-1,3-Dichloropropylene	10061-01-5	0.036	18
trans-1,3-Dichloropropylene	10061-02-6	0.036	18
Dieldrin	60-57-1	0.017	0.13
Diethyl phthalate	84-66-2	0.20	28
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
Dimethyl phthalate	131-11-3	0.047	28
Di-n-butyl phthalate	84-74-2	0.057	28
1,4-Dinitrobenzene	100-25-4	0.32	2.3
4,6-Dinitro-o-cresol	534-52-1	0.28	160
2,4-Dinitrophenol	51-28-5	0.12	160
2,4-Dinitrotoluene	121-14-2	0.32	140
2,6-Dinitrotoluene	606-20-2	0.55	28
Di-n-octyl phthalate	117-84-0	0.017	28
Di-n-propylnitrosamine	621-64-7	0.40	14
1,4-Dioxane	123-91-1	12.0	170
Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	13
Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	13
1,2-Diphenylhydrazine	122-66-7	0.087	NA
Disulfoton	298-04-4	0.017	6.2
Endosulfan I	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
Ethyl acetate	141-78-6	0.34	33
Ethyl benzene	100-41-4	0.057	10
Ethyl cyanide (Propanenitrile)	107-12-0	0.24	360
Ethylene oxide	75-21-8	0.12	NA
Ethyl ether	60-29-7	0.12	160
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28

Ethyl methacrylate	97-63-2	0.14	160
Famphur	52-85-7	0.017	15
Fluoranthene	206-44-0	0.068	3.4
Fluorene	86-73-7	0.059	3.4
Heptachlor	76-44-8	0.0012	0.066
1,2,3,4,6,7,8-Heptachloro-dibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	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
Heptachlor epoxide	1024-57-3	0.016	0.066
Hexachlorobenzene	118-74-1	0.055	10
Hexachlorobutadiene	87-68-3	0.055	5.6
Hexachlorocyclopentadiene	77-47-4	0.057	2.4
HxCDDs (All Hexachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachloro-dibenzofurans)	55684-94-1	0.000063	0.001
Hexachloroethane	67-72-1	0.055	30
Hexachloropropylene	1888-71-7	0.035	30
Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4
Iodomethane	74-88-4	0.19	65
Isobutyl alcohol	78-83-1	5.6	170
Isodrin	465-73-6	0.021	0.066
Isosafrole	120-58-1	0.081	2.6
Kepone	143-50-0	0.0011	0.13
Methacrylonitrile	126-98-7	0.24	84
Methanol	67-56-1	5.6	0.75 mg/ℓ TCLP
Methapyrilene	91-80-5	0.081	1.5
Methoxychlor	72-43-5	0.25	0.18
3-Methylcholanthrene	56-49-5	0.0055	15
4,4-Methylene bis(2-chloro-aniline)	101-14-4	0.50	30
Methylene chloride	75-09-2	0.089	30
Methyl ethyl ketone	78-93-3	0.28	36
Methyl isobutyl ketone	108-10-1	0.14	33
Methyl methacrylate	80-62-6	0.14	160
Methyl methansulfonate	66-27-3	0.018	NA
Methyl parathion	298-00-0	0.014	4.6
Naphthalene	91-20-3	0.059	5.6
2-Naphthylamine	91-59-8	0.52	NA
o-Nitroaniline	88-74-4	0.27	14

p-Nitroaniline	100-01-6	0.028	28
Nitrobenzene	98-95-3	0.068	14
5-Nitro-o-toluidine	99-55-8	0.32	28
o-Nitrophenol	88-75-5	0.028	13
p-Nitrophenol	100-02-7	0.12	29
N-Nitrosodiethylamine	55-18-5	0.40	28
N-Nitrosodimethylamine	62-75-9	0.40	2.3
N-Nitroso-di-n-butylamine	924-16-3	0.40	17
N-Nitrosomethylethylamine	10595-95-6	0.40	2.3
N-Nitrosomorpholine	59-89-2	0.40	2.3
N-Nitrosopiperidine	100-75-4	0.013	35
N-Nitrosopyrrolidine	930-55-2	0.013	35
1,2,3,4,6,7,8,9-Octachloro-dibenzo-p-dioxin (1,2,3,4,6,7,8,9-OCDD)			
1,2,3,4,6,7,8,9-Octachloro-dibenzofuran (1,2,3,4,6,7,8,9-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) <sup>8</sup>	1336-36-3	0.10	10
Pentachlorobenzene	608-93-5	0.055	10
PeCDDs (All Pentachloro-dibenzo-p-dioxins)	36088-22-9	0.000063	0.001
PeCDFs (All Pentachloro-dibenzofurans)	30402-15-4	0.000035	0.001
Pentachloroethane	76-01-7	0.055	6.0
Pentachloronitrobenzene	82-68-8	0.055	4.8
Pentachlorophenol	87-86-5	0.089	7.4
Phenacetin	62-44-2	0.081	16
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
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
Phthalic anhydride	85-44-9	0.055	28
Pronamide	23950-58-5	0.093	1.5
Pyrene	129-00-0	0.067	8.2
Pyridine	110-86-1	0.014	16
Safrole	94-59-7	0.081	22
Silvex (2,4,5-TP)	93-72-1	0.72	7.9
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
TCDDs (All Tetrachloro-dibenzo-p-dioxins)	41903-57-5	0.000063	0.001
TCDFs (All Tetrachloro-dibenzofurans)	55722-27-5	0.000063	0.001

1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
Toluene	108-88-3	0.080	10
Toxaphene	8001-35-2	0.0095	2.6
Tribromomethane (Bromoform)	75-25-2	0.63	15
1,2,4-Trichlorobenzene	120-82-1	0.055	19
1,1,1-Trichloroethane	71-55-6	0.054	6.0
1,1,2-Trichloroethane	79-00-5	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0
Trichloromonofluoromethane	75-69-4	0.020	30
2,4,5-Trichlorophenol	95-95-4	0.18	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
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
1,1,2-Trichloro-1,2,2- trifluoroethane	76-13-1	0.057	30
tris-(2,3-Dibromopropyl) phosphate	126-72-7	0.11	0.10
Vinyl chloride	75-01-4	0.27	6.0
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Antimony	7440-36-0	1.9	1.15 mg/l TCLP
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Barium	7440-39-3	1.2	21 mg/l TCLP
Beryllium	7440-41-7	0.82	1.22 mg/l TCLP
Cadmium	7440-43-9	0.69	0.11 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Cyanides (Total) <sup>4</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>4</sup>	57-12-5	0.86	30
Fluoride <sup>5</sup>	16984-48-8	35	NA
Lead	7439-92-1	0.69	0.75 mg/l TCLP
Mercury-Nonwastewater from Retort	7439-97-6	NA	0.20 mg/l TCLP
Mercury-All Others	7439-97-6	0.15	0.025 mg/l TCLP
Nickel	7440-02-0	3.98	11 mg/l TCLP
Selenium <sup>7</sup>	7782-49-2	0.82	5.7 mg/l TCLP
Silver	7440-22-4	0.43	0.14 mg/l TCLP
Sulfide	18496-25-8	14	NA
Thallium	7440-28-0	1.4	0.20 mg/l TCLP
Vanadium <sup>5</sup>	7440-62-2	4.3	1.6 mg/l TCLP
Zinc <sup>5</sup>	7440-66-6	2.61	4.3 mg/l TCLP

<sup>1</sup> CAS means Chemical Abstract Services. When the USEPA 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.

<sup>2</sup> Concentration standards for wastewaters are expressed in mg/ℓ are based on analysis of composite samples.

<sup>3</sup> Except for metals (EP or TCLP) and cyanides (total and amenable), the nonwastewater treatment standards expressed as a concentration were established, in part, based on incineration in units operated in accordance with the technical requirements of Subpart O of 35 Ill. Adm. Code 724 or Subpart O of 35 Ill. Adm. Code 725 or on combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in Section 728.140(d). All concentration standards for nonwastewaters are based on analysis of grab samples.

<sup>4</sup> Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010C or 9012B, in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a), with a sample size of 10 grams and a distillation time of one hour and 15 minutes.

<sup>5</sup> These constituents are not “underlying hazardous constituents” in characteristic wastes, according to the definition at Section 728.102(i).

<sup>6</sup> This footnote corresponds with footnote 6 to the table to 40 CFR 268.48(a), which USEPA has removed and marked “reserved”. This statement maintains structural consistency with the corresponding federal regulations.

<sup>7</sup> This constituent is not an underlying hazardous constituent, as defined at Section 728.102(i), because its 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.

<sup>8</sup> This standard is temporarily deferred for soil exhibiting a hazardous characteristic due to USEPA hazardous waste numbers D004 through D011 only.

Note: NA means not applicable.

BOARD NOTE: Derived from table to 40 CFR 268.48(a) (2017).

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)