

ILLINOIS POLLUTION CONTROL BOARD  
May 21, 1998

IN THE MATTER OF: )  
 ) R97-21  
RCRA UPDATE, USEPA REGULATIONS ) (Identical-in-Substance  
Rulemaking )  
(July 1, 1996, through December 31, 1996) ) - Land)

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IN THE MATTER OF: )  
 ) R98-3  
UIC UPDATE, USEPA REGULATIONS ) (Identical-in-Substance  
Rulemaking )  
(January 1, 1997, through June 30, 1997) ) - Land)

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IN THE MATTER OF: )  
 ) R98-5  
RCRA UPDATE, USEPA REGULATIONS ) (Identical-in-Substance  
Rulemaking )  
(January 1, 1997, through June 30, 1997) ) - Land)

Proposed Rule. Proposal for Public Comment.

ORDER OF THE BOARD (by K.M. Hennessey):

Pursuant to Sections 13(c) and 22.4(a) of the Environmental Protection Act (Act) (415 ILCS 5/13(c) & 22.4(a) (1996)), the Board proposes amendments to the Illinois regulations that are "identical-in-substance" to hazardous waste regulations adopted by the United States Environmental Protection Agency (USEPA) to implement Subtitle C of the federal Resource Conservation and Recovery Act of 1976 (RCRA Subtitle C), 42 U.S.C. §§ 6921 *et seq.* (1996). The Board further proposes amendments to the Illinois regulations that are "identical-in-substance" to underground injection control (UIC) regulations adopted by the USEPA to implement provisions of the Safe Drinking Water Act (SDWA), 42 USC § 300h *et seq.* (1996). The nominal time-frame of this consolidated docket includes federal RCRA Subtitle C amendments adopted by USEPA in the periods July 1, 1996, through December 31, 1996, and January 1, 1997, through June 30, 1997. The nominal time-frame also includes federal UIC amendments adopted in the period January 1, 1997, through June 30, 1997.

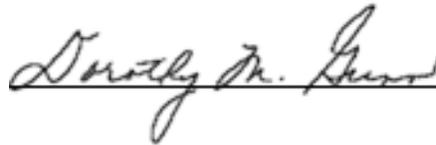
Section 22.4(a) provides for quick adoption of regulations that are "identical-in-substance" to federal regulations adopted by USEPA to implement Sections 3001 through 3005 of RCRA, 42 U.S.C. §§ 6921-6925 (1996)) and that Title VII of the Act and Section 5 of the Administrative Procedure Act (APA) (5 ILCS 100/5-35 & 5-40 (1996)) shall not apply. Section 13(c) similarly provides for quick adoption of regulations that are "identical-in-substance" to federal regulations adopted by USEPA to implement Section 1421 of SDWA, 42 U.S.C. § 300h (1996)).

Because this consolidated rulemaking is not subject to Section 5 of the APA, it is not subject to first notice or to second notice review by the Joint Committee on Administrative Rules (JCAR). The federal RCRA Subtitle C regulations are found at 40 CFR 260 through 268, 270 through 271, 279, and, more recently, 273. The federal UIC regulations are found at 40 CFR 144 through 148.

This order is supported by a proposed opinion adopted on the same day. The Board will submit Notices of Proposed Amendments for publication in the Illinois Register. The complete text of the proposed rules follows.

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, do hereby certify that the above order was adopted on the 21st day of May 1998 by a vote of 7-0.

A handwritten signature in cursive script that reads "Dorothy M. Gunn". The signature is written in dark ink and is positioned above the typed name and title.

Dorothy M. Gunn, Clerk  
Illinois Pollution Control  
Board

TITLE 35: ENVIRONMENTAL PROTECTION  
 SUBTITLE G: WASTE DISPOSAL  
 CHAPTER I: POLLUTION CONTROL BOARD  
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PART 703  
 RCRA PERMIT PROGRAM

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

SOURCE: Adopted in R82-19, 53 PCB 131, at 7 Ill. Reg. 14289, effective October 12, 1983; amended in R83-24 at 8 Ill. Reg. 206, effective December 27, 1983; amended in R84-9 at 9 Ill. Reg. 11899, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 1110, effective January 2, 1986; amended in R85-23 at 10 Ill. Reg. 13284, effective July 28, 1986; amended in R86-1 at 10 Ill. Reg. 14093, effective August 12, 1986; amended in R86-19 at 10 Ill. Reg. 20702, effective December 2, 1986; amended in R86-28 at 11 Ill. Reg. 6121, effective March 24, 1987; amended in R86-46 at 11 Ill. Reg. 13543, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19383, effective November 12, 1987; amended in R87-26 at 12 Ill. Reg. 2584, effective January 15, 1988; amended in R87-39 at 12 Ill. Reg. 13069, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 447, effective December 27, 1988; amended in R89-1 at 13 Ill. Reg. 18477, effective November 13, 1989; amended in R89-9 at 14 Ill. Reg. 6278, effective April 16, 1990; amended in R90-2 at 14 Ill. Reg. 14492, effective August 22, 1990; amended in R90-11 at 15 Ill. Reg. 9616, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14554, effective September 30, 1991; amended in R91-13 at 16 Ill. Reg. 9767, effective June 9, 1992; amended in R92-10 at 17 Ill. Reg. 5774, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20794, effective November 22, 1993; amended in R93-16 at 18 Ill. Reg. 6898, effective April 26, 1994; amended in R94-7 at 18 Ill. Reg. 12392, effective July 29, 1994; amended in R94-5 at 18 Ill. Reg. 18316, effective December 20, 1994; amended in R95-6 at 19 Ill. Reg. 9920, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 11225, effective August 1, 1996; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 533, effective December 16, 1997; amended in R98-12 at 22 Ill. Reg. 7632, effective April 15, 1998; amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

SUBPART B: PROHIBITIONS

Section 703.124 Discharges of Hazardous Waste

- a) A person is not required to obtain a RCRA permit for treatment or containment activities taken during immediate response to any of the following situations:

- 1) A discharge of a hazardous waste;
  - 2) An imminent and substantial threat of a discharge of hazardous waste;
  - 3) A discharge of a material which, when discharged, becomes a hazardous waste ~~;~~ or
  - 4) An immediate threat to human health, public safety, property, or the environment from the known or suspected presence of military munitions, other explosive material, or an explosive device, as determined by an explosive or munitions emergency response specialist as defined in 35 Ill. Adm. Code 720.110.
- b) Any person who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of this Part for those activities.
- c) In the case of an emergency response involving military munitions, the responding military emergency response specialist's organizational unit shall retain records for three years after the date of the response that identify the following: the date of the response, the responsible persons responding, the type and description of material addressed, and the disposition of the material.

~~(Board Note~~ BOARD NOTE: ~~See Derived from~~ 40 CFR 270.1(c)(3) ~~(1997).)~~

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART D: APPLICATIONS

##### Section 703.213 Air Emission Controls for Tanks, Surface Impoundments, and Containers

Except as otherwise provided in 35 Ill. Adm. Code 724.101, owners and operators of tanks, surface impoundments, or containers that use air emission controls in accordance with the requirements of 35 Ill. Adm. Code 724.Subpart CC shall provide the following additional information:

- a) Documentation for each floating roof cover installed on a tank subject to 35 Ill. Adm. Code 724.984(d)(1) or (d)(2) that includes information prepared by the owner or operator or provided by the cover manufacturer or

vendor describing the cover design, and certification by the owner or operator that the cover meets the applicable design specifications, as listed in 35 Ill. Adm. Code 725.991(e)(1) or (f)(1).

- b) Identification of each container area subject to the requirements of 35 Ill. Adm. Code 724.Subpart CC and certification by the owner or operator that the requirements of this Subpart are met.
- c) Documentation for each enclosure used to control air pollutant emissions from containers in accordance with the requirements of 35 Ill. Adm. Code 724.984(d)(5) or 724.986(e)(1)(ii) that includes records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure, as specified in "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111.
- d) Documentation for each floating membrane cover installed on a surface impoundment in accordance with the requirements of 35 Ill. Adm. Code 724.985(c) that includes information prepared by the owner or operator or provided by the cover manufacturer or vendor describing the cover design, and certification by the owner or operator that the cover meets the specifications listed in 35 Ill. Adm. Code 264724.985(c)(1).
- e) Documentation for each closed-vent system and control device installed in accordance with the requirements of 35 Ill. Adm. Code 724.987 that includes design and performance information, as specified in Section 703.124(c) and (d).
- f) An emission monitoring plan for both Method 21 in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, and control device monitoring methods. This plan must include the following information: monitoring points, monitoring methods for control devices, monitoring frequency, procedures for documenting exceedances, and procedures for mitigating noncompliances.
- g) When an owner or operator of a facility subject to 35 Ill. Adm. Code 725.Subpart CC cannot comply with 35 Ill. Adm. Code 724.Subpart CC by the date of permit issuance, the schedule of implementation required under 35 Ill. Adm. Code 725.982.

BOARD NOTE: Derived from 40 CFR 270.27(a) (19967), as amended at 61 Fed. Reg. 59996 (Nov. 25, 1996).

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

SUBPART E: SHORT TERM AND PHASED PERMITS

Section 703.232 Permits for Boilers and Industrial Furnaces  
Burning Hazardous Waste

- a) General. Owners and operators of new boilers and industrial furnaces (those not operating under the interim status standards of 35 Ill. Adm. Code 726.203) are subject to subsection (b) through (f) of this Section. Boilers and industrial furnaces operating under the interim status standards of 35 Ill. Adm. Code 726.203 are subject to subsection (g) of this Section.
- b) Permit operating periods for new boilers and industrial furnaces. A permit for a new boiler or industrial furnace must specify appropriate conditions for the following operating periods:
  - 1) Pretrial burn period. For the period beginning with initial introduction of hazardous waste and ending with initiation of the trial burn, and only for the minimum time required to bring the boiler or industrial furnace to a point of operation readiness to conduct a trial burn, not to exceed 720 hours operating time when burning hazardous waste, the Agency shall establish permit conditions in the Pretrial Burn Period ~~of the permit conditions~~, including but not limited to allowable hazardous waste feed rates and operating conditions. The Agency shall extend the duration of this operational period once, for up to 720 additional hours, at the request of the applicant when good cause is shown. The permit must be modified to reflect the extension according to Section 703.280 et seq.
    - A) Applicants must submit a statement, with Part B of the permit application, that suggests the conditions necessary to operate in compliance with the standards of 35 Ill. Adm. Code 726.204 through 726.207 during this period. This statement should include, at a minimum, restrictions on the applicable

operating requirements identified in 35 Ill. Adm. Code 726.202 (e).

- B) The Agency shall review this statement and any other relevant information submitted with Part B of the permit application and specify requirements for this period sufficient to meet the performance standards of 35 Ill. Adm. Code 726.204 through 726.207 based on the Agency's engineering judgment.
- 2) Trial burn period. For the duration of the trial burn, the Agency shall establish conditions in the permit for the purposes of determining feasibility of compliance with the performance standards of 35 Ill. Adm. Code 726.204 through 726.207 and determining adequate operating conditions under 35 Ill. Adm. Code 726.202(e). Applicants shall propose a trial burn plan, prepared under subsection (c) of this Section, to be submitted with Part B of the permit application.
  - 3) Post-trial burn period.
    - A) For the period immediately following completion of the trial burn, and only for the minimum period sufficient to allow sample analysis, data computation and submission of the trial burn results by the applicant, and review of the trial burn results and modification of the facility permit by the Agency to reflect the trial burn results, the Agency shall establish the operating requirements most likely to ensure compliance with the performance standards of 35 Ill. Adm. Code 726.204 through 726.207 based on the Agency's engineering judgment.
    - B) Applicants shall submit a statement, with Part B of the application, that identifies the conditions necessary to operate during this period in compliance with the performance standards of 35 Ill. Adm. Code 726.204 through 726.207. This statement should include, at a minimum, restrictions on the operating requirements provided by 35 Ill. Adm. Code 726.202 (e).
    - C) The Agency shall review this statement and any other relevant information submitted with Part B of the permit application and specify requirements of this period sufficient to

meet the performance standards of 35 Ill. Adm. Code 726.204 through 726.207 based on the Agency's engineering judgment.

- 4) Final permit period. For the final period of operation the Agency shall develop operating requirements in conformance with 35 Ill. Adm. Code 726.202(e) that reflect conditions in the trial burn plan and are likely to ensure compliance with the performance standards of 35 Ill. Adm. Code 726.204 through 726.207. Based on the trial burn results, the Agency shall make any necessary modifications to the operating requirements to ensure compliance with the performance standards. The permit modification must proceed according to Section 703.280 et seq.
- c) Requirements for trial burn plans. The trial burn plan must include the following information. The Agency, in reviewing the trial burn plan, shall evaluate the sufficiency of the information provided and may require the applicant to supplement this information, if necessary, to achieve the purposes of this subsection.
- 1) An analysis of each feed stream, including hazardous waste, other fuels, and industrial furnace feed stocks, as fired, that includes:
    - A) Heating value, levels of antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, thallium, total chlorine/chloride, and ash; and
    - B) Viscosity or description of the physical form of the feed stream.
  - 2) An analysis of each hazardous waste, as fired, including:
    - A) An identification of any hazardous organic constituents listed in 35 Ill. Adm. Code 721.Appendix H that are present in the feed stream, except that the applicant need not analyze for constituents listed in 721.Appendix H that would reasonably not be expected to be found in the hazardous waste. The constituents excluded from analysis must be identified **as-and** the basis for this exclusion explained. The analysis must be conducted in accordance with analytical techniques specified in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical

Methods", USEPA Publication SW-846, as incorporated by reference at 35 Ill. Adm. Code 720.111 and Section 703.110, or their equivalent.

- B) An approximate quantification of the hazardous constituents identified in the hazardous waste, within the precision produced by the analytical methods specified in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods", USEPA Publication SW-846, as incorporated by reference at 35 Ill. Adm. Code 720.111 and Section 703.110, or other equivalent.
  - C) A description of blending procedures, if applicable, prior to firing the hazardous waste, including a detailed analysis of the hazardous waste prior to blending, ~~an analysis of the material with which the hazardous waste prior to blending,~~ an analysis of the material with which the hazardous waste is blended, and blending ratios.
- 3) A detailed engineering description of the boiler or industrial furnace, including:
- A) Manufacturer's name and model number of the boiler or industrial furnace;
  - B) Type of boiler or industrial furnace;
  - C) Maximum design capacity in appropriate units;
  - D) Description of the feed system for the hazardous waste and, as appropriate, other fuels and industrial furnace feedstocks;
  - E) Capacity of hazardous waste feed system;
  - F) Description of automatic hazardous waste feed cutoff system(s);
  - G) Description of any pollution control system; and
  - H) Description of stack gas monitoring and any pollution control monitoring systems.
- 4) A detailed description of sampling and monitoring procedures including sampling and monitoring

locations in the system, the equipment to be used, sampling and monitoring frequency, and sample analysis.

- 5) A detailed test schedule for each hazardous waste for which the trial burn is planned, including date(s), duration, quantity of hazardous waste to be burned, and other factors relevant to the Agency's decision under subsection (b)(2) of this Section.
  - 6) A detailed test protocol, including, for each hazardous waste identified, the ranges of hazardous waste feed rate, and, as appropriate, the feed rates of other fuels and industrial furnace feedstocks, and any other relevant parameters that may affect the ability of the boiler or industrial furnace to meet the performance standards in 35 Ill. Adm. Code 726.204 through 726.207.
  - 7) A description of and planned operating conditions for any emission control equipment that will be used.
  - 8) Procedures for rapidly stopping the hazardous waste feed and controlling emissions in the event of an equipment malfunction.
  - 9) Such other information as the Agency finds necessary to determine whether to approve the trial burn plan in light of the purposes of this subsection and the criteria in subsection (b)(2) of this Section.
- d) Trial burn procedures.
- 1) A trial burn must be conducted to demonstrate conformance with the standards of 35 Ill. Adm. Code 726.104 through 726.107.
  - 2) The Agency shall approve a trial burn plan if the Agency finds that:
    - A) The trial burn is likely to determine whether the boiler or industrial furnace can meet the performance standards of 35 Ill. Adm. Code 726.104 through 726.107.
    - B) The trial burn itself will not present an imminent hazard to human health and the environment;

- C) The trial burn will help the Agency to determine operating requirements to be specified under 35 Ill. Adm. Code 726.102(e); and
  - D) The information sought in the trial burn cannot reasonably be developed through other means.
- 3) The Agency shall send a notice to all persons on the facility mailing list, as set forth in 35 Ill. Adm. Code 705.161(a), and to the appropriate units of State and local government, as set forth in 35 Ill. Adm. Code 705.163(a)(5), announcing the scheduled commencement and completion dates for the trial burn. The applicant may not commence the trial burn until after the Agency has issued such notice.
- A) This notice must be mailed within a reasonable time period before the trial burn. An additional notice is not required if the trial burn is delayed due to circumstances beyond the control of the facility or the Agency.
  - B) This notice must contain:
    - i) The name and telephone number of applicant's contact person;
    - ii) The name and telephone number of the Agency regional office appropriate for the facility;
    - iii) The location where the approved trial burn plan and any supporting documents can be reviewed and copied; and
    - iv) An expected time period for commencement and completion of the trial burn.
- 4) The applicant shall submit to the Agency a certification that the trial burn has been carried out in accordance with the approved trial burn plan, and submit the results of all the determinations required in subsection (c) of this Section. The Agency shall, in the trial burn plan, require that the submission be made within 90 days after completion of the trial burn, or

later if the Agency determines that a later date is acceptable.

- 5) All data collected during any trial burn must be submitted to the Agency following completion of the trial burn.
  - 6) All submissions required by this subsection must be certified on behalf of the applicant by the signature of a person authorized to sign a permit application or a report under 35 Ill. Adm. Code 702.126.
- e) Special procedures for DRE trial burns. When a DRE trial burn is required under 35 Ill. Adm. Code 726.104, the Agency shall specify (based on the hazardous waste analysis data and other information in the trial burn plan) as trial Principal Organic Hazardous Constituents (POHCs) those compounds for which destruction and removal efficiencies must be calculated during the trial burn. These trial POHCs will be specified by the Agency based on information including the Agency's estimate of the difficulty of destroying the constituents identified in the hazardous waste analysis, their concentrations or mass in the hazardous waste feed, and, for hazardous waste containing or derived from wastes listed in 35 Ill. Adm. Code 721.Subpart D, the hazardous waste organic constituent(s) identified in 35 Ill. Adm. Code 721.Appendix G as the basis for listing.
- f) Determinations based on trial burn. During each approved trial burn (or as soon after the burn as is practicable), the applicant shall make the following determinations:
- 1) A quantitative analysis of the levels of antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, thallium, silver, and chlorine/chloride in the feed streams (hazardous waste, other fuels, and industrial furnace feedstocks);
  - 2) When a DRE trial burn is required under 35 Ill. Adm. Code 726.204(a):
    - A) A quantitative analysis of the trial POHCs in the hazardous waste feed;
    - B) A quantitative analysis of the stack gas for the concentration and mass emissions of the trial POHCs; and

- C) A computation of **destruction and removal efficiency** (DRE), in accordance with the DRE formula specified in 35 Ill. Adm. Code 726.204(a).
- 3) When a trial burn for chlorinated dioxins and furans is required under 35 Ill. Adm. Code 726.204(e), a quantitative analysis of the stack gas for the concentration and mass emission rate of the 2,3,7,8-chlorinated tetra- through octa-congeners of chlorinated dibenzo-p-dioxins and furans, and a computation showing conformance with the emission standard.
  - 4) When a trial burn for PM, metals, or HCl/Chlorine gas is required under 35 Ill. Adm. Code 726.205, 726.206(c) or (d), or 726.207(b)(2) or (c), a quantitative analysis of the stack gas for the concentrations and mass emissions of PM, metals, or HCl and chlorine gas and computations showing conformance with the applicable emission performance standards;
  - 5) When a trial burn for DRE, metals, and HCl/Chlorine gas is required under 35 Ill. Adm. Code 726.204(a), 726.206(c) or (d), or 726.207(b)-(2) or (c), a quantitative analysis of the scrubber water (if any), ash residues, other residues, and products for the purpose of estimating the fate of the trial POHCs, metals, and chlorine/chloride;
  - 6) An identification of sources of fugitive emissions and their means of control;
  - 7) A continuous measurement of carbon monoxide (CO), oxygen, and, where required, hydrocarbons (HC), in the stack gas; and
  - 8) Such other information as the Agency specifies as necessary to ensure that the trial burn will determine compliance with the performance standards 35 Ill. Adm. Code 726.204 through 726.207 and to establish the operating conditions required by 35 Ill. Adm. Code 726.204 through 726.207 and of determining adequate operating conditions under 35 Ill. Adm. Code 726.203, and to establish the operating conditions required by 35 Ill. Adm. Code 726.202(e) as necessary to meet those performance standards.

- g) Interim status boilers and industrial furnaces. For the purpose of determining feasibility of compliance with the performance standards of 35 Ill. Adm. Code 726.204 through 726.207 and of determining adequate operating conditions under 35 Ill. Adm. Code 726.203, applicants owning or operating existing boilers or industrial furnaces operated under the interim status standards of 35 Ill. Adm. Code 726.203 shall either prepare and submit a trial burn plan and perform a trial burn in accordance with the requirements of the Section or submit other information as specified in Section 703.208(a)(6). The Agency shall announce its intention to approve of the trial burn plan in accordance with the timing and distribution requirements of subsection (d)(3) of this Section. The contents of the notice must include: the name and telephone number of a contact person at the facility; the name and telephone number of Agency regional office appropriate for the facility; the location where the trial burn plan and any supporting documents can be reviewed and copied; and a schedule of the activities that are required prior to permit issuance, including the anticipated time schedule for agency approval of the plan and the time periods during which the trial burn would be conducted. Applicants that submit a trial burn plan and receive approval before submission of the Part B permit application shall complete the trial burn and submit the results specified in subsection (f) of this Section with the Part B permit application. If completion of this process conflicts with the date set for submission of the Part B application, the applicant shall contact the Agency to establish a later date for submission of the Part B application or the trial burn results. If the applicant submits a trial burn plan with Part B of the permit application, the trial burn must be conducted and the results submitted within a time period prior to permit issuance to be specified by the Agency.

BOARD NOTE: Derived from 40 CFR 270.66 (1996).

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective  
\_\_\_\_\_)

#### SUBPART G: CHANGES TO PERMITS

Section 703.280 Permit Modification at the Request of the Permittee

- a) Class 1 modifications. See Section 703.281.

- b) Class 2 modifications. See Section 703.282.
- c) Class 3 modifications. See Section 703.283.
- d) Other modifications.
  - 1) In the case of modifications not explicitly listed in Appendix A, the permittee may submit a Class 3 modification request to the Agency, or the permittee may request a determination by the Agency that the modification be reviewed and approved as a Class 1 or Class 2 modification. If the permittee requests that the modification be classified as a Class 1 or 2 modification, the permittee shall provide the Agency with the necessary information to support the requested classification.
  - 2) The Agency shall make the determination described in subsection (d)(1), above, as promptly as practicable. In determining the appropriate class for a specific modification, the Agency shall consider the similarity of the modification to other modifications codified in Appendix A and the following criteria:
    - A) Class 1 modifications apply to minor changes that keep the permit current with routine changes to the facility or its operation. These changes do not substantially alter the permit conditions or reduce the capacity of the facility to protect human health or the environment. In the case of Class 1 modifications, the Agency may require prior approval.
    - B) Class 2 modifications apply to changes that are necessary to enable a permittee to respond, in a timely manner, to
      - i) Common variations in the types and quantities of the wastes managed under the facility permit,
      - ii) Technological advances, and
      - iii) Changes necessary to comply with new regulations, where these changes can be implemented without substantially changing design specifications or management practices in the permit.

- C) Class 3 modifications substantially alter the facility or its operation.
- e) Temporary authorizations.
- 1) Upon request of the permittee, the Agency shall, without prior public notice and comment, grant the permittee a temporary authorization in accordance with this subsection. Temporary authorizations have a term of not more than 180 days.
  - 2) Procedures.
    - A) The permittee may request a temporary authorization for:
      - i) Any Class 2 modification meeting the criteria in subsection (e)(3)(B), below, and
      - ii) Any Class 3 modification that meets the criteria in subsection (e)(3)(B)(i), below; or that meets the criteria in subsection (e)(3)(B)(iii) through (v), below, and provides improved management or treatment of a hazardous waste already listed in the facility permit.
    - B) The temporary authorization request must include:
      - i) A description of the activities to be conducted under the temporary authorization;
      - ii) An explanation of why the temporary authorization is necessary; and
      - iii) Sufficient information to ensure compliance with 35 Ill. Adm. Code 724 standards.
    - C) The permittee shall send a notice about the temporary authorization request to all persons on the facility mailing list maintained by the Agency and to appropriate units of State and local governments as specified in 35 Ill. Adm. Code 705.163(a)-(5). This notification must be made within seven days after submission of the authorization request.

- 3) The Agency shall approve or deny the temporary authorization as quickly as practical. To issue a temporary authorization, the Agency shall find:
  - A) The authorized activities are in compliance with the standards of 35 Ill. Adm. Code 724.
  - B) The temporary authorization is necessary to achieve one of the following objectives before action is likely to be taken on a modification request:
    - i) To facilitate timely implementation of closure or corrective action activities;
    - ii) To allow treatment or storage in tanks, containers or in containment buildings in accordance with 35 Ill. Adm. Code 728;
    - iii) To prevent disruption of ongoing waste management activities;
    - iv) To enable the permittee to respond to sudden changes in the types or quantities of the wastes managed under the facility permit; or
    - v) To facilitate other changes to protect human health and the environment.
- 4) A temporary authorization shall be reissued for one additional term of up to 180 days provided that the permittee has requested a Class 2 or 3 permit modification for the activity covered in the temporary authorization, and:
  - A) The reissued temporary authorization constitutes the Agency's decision on a Class 2 permit modification in accordance with Section 703.282(f)(1)(D) or (f)(2)(D), or
  - B) The Agency determines that the reissued temporary authorization involving a Class 3 permit modification request is warranted to allow the authorized activities to continue while the modification procedures of 35 Ill. Adm. Code 703.283 are conducted.
- f) Public notice and appeals of permit modification decisions.

- 1) The Agency shall notify persons on the facility mailing list and appropriate units of State and local government within 10 days of any decision to grant or deny a Class 2 or 3 permit modification request. The Agency shall also notify such persons within 10 days after an automatic authorization for a Class 2 modification goes into effect under Section 703.282(f)(3) or (f)(5).
  - 2) The Agency's decision to grant or deny a Class 2 or 3 permit modification request may be appealed under the permit appeal procedures of 35 Ill. Adm. Code 705.212.
  - 3) An automatic authorization that goes into effect under Section 703.282(f)(3) or (f)(5) may be appealed under the permit appeal procedures of 35 Ill. Adm. Code 705.212; however, the permittee may continue to conduct the activities pursuant to the automatic authorization until the Board enters a final order on the appeal notwithstanding the provisions of 35 Ill. Adm. Code 705.204.
- g) Newly regulated wastes and units.
- 1) The permittee is authorized to continue to manage wastes listed or identified as hazardous under 35 Ill. Adm. Code 721, or to continue to manage hazardous waste in units newly regulated as hazardous waste management units, if:
    - A) The unit was in existence as a hazardous waste facility with respect to the newly listed or characterized waste or newly regulated waste management unit on the effective date of the final rule listing or identifying the waste, or regulating the unit;
    - B) The permittee submits a Class 1 modification request on or before the date on which the waste becomes subject to the new requirements;
    - C) The permittee is in compliance with the applicable standards of 35 Ill. Adm. Code 725 and 726;
    - D) The permittee also submits a complete class 2 or 3 modification request within 180 days after the effective date of the rule listing or identifying the waste, or subjecting the

unit to management standards under 35 Ill. Adm. Code 724, 725 or 726; and

E) In the case of land disposal units, the permittee certifies that such unit is in compliance with all applicable requirements of 35 Ill. Adm. Code 725 for groundwater monitoring and financial responsibility requirements on the date 12 months after the effective date of the rule identifying or listing the waste as hazardous, or regulating the unit as a hazardous waste management unit. If the owner or operator fails to certify compliance with all these requirements, the owner or operator loses authority to operate under this Section.

2) New wastes or units added to a facility's permit under this subsection do not constitute expansions for the purpose of the 25 percent capacity expansion limit for Class 2 modifications.

h) Military hazardous waste munitions treatment and disposal. The permittee is authorized to continue to accept waste military munitions notwithstanding any permit conditions barring the permittee from accepting off-site wastes, if:

1) The facility was in existence as a hazardous waste facility and the facility was already permitted to handle the waste military munitions on the date when the waste military munitions became subject to hazardous waste regulatory requirements;

2) On or before the date when the waste military munitions become subject to hazardous waste regulatory requirements, the permittee submits a Class 1 modification request to remove or amend the permit provision restricting the receipt of off-site waste munitions; and

3) The permittee submits a complete Class 2 modification request within 180 days of the date when the waste military munitions became subject to hazardous waste regulatory requirements.

hi) Permit modification list. The Agency shall maintain a list of all approved permit modifications and shall publish a notice once a year in a State-wide newspaper that an updated list is available for review.

~~Board Note~~BOARD NOTE: Derived from 40 CFR 270.42(d) through (h) (19907), as amended at 56 Fed. Reg. 7206, February 21, 1991, and at 56 Fed. Reg. 32688, July 17, 1991.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

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

PART 720  
 HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL

SUBPART A: GENERAL PROVISIONS

Section  
 720.101 Purpose, Scope, and Applicability  
 720.102 Availability of Information; Confidentiality of Information  
 720.103 Use of Number and Gender

SUBPART B: DEFINITIONS

Section  
 720.110 Definitions  
 720.111 References

SUBPART C: RULEMAKING PETITIONS AND OTHER PROCEDURES

Section  
 720.120 Rulemaking  
 720.121 Alternative Equivalent Testing Methods  
 720.122 Waste Delisting  
 720.123 Petitions for Regulation as Universal Waste  
 720.130 Procedures for Solid Waste Determinations  
 720.131 Solid Waste Determinations  
 720.132 Boiler Determinations  
 720.133 Procedures for Determinations  
 720.140 Additional regulation of certain hazardous waste Recycling Activities on a case-by-case Basis  
 720.141 Procedures for case-by-case regulation of hazardous waste Recycling Activities

720.Appendix A Overview of 40 CFR, Subtitle C Regulations

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

SOURCE: Adopted in R81-22, 43 PCB 427, at 5 Ill. Reg. 9781, effective May 17, 1982; amended and codified in R81-22, 45 PCB 317, at 6 Ill. Reg. 4828, effective May 17, 1982; amended in R82-

19 at 7 Ill. Reg. 14015, effective October 12, 1983; amended in R84-9, 53 PCB 131 at 9 Ill. Reg. 11819, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 968, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 13998, effective August 12, 1986; amended in R86-19 at 10 Ill. Reg. 20630, effective December 2, 1986; amended in R86-28 at 11 Ill. Reg. 6017, effective March 24, 1987; amended in R86-46 at 11 Ill. Reg. 13435, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19280, effective November 12, 1987; amended in R87-26 at 12 Ill. Reg. 2450, effective January 15, 1988; amended in R87-39 at 12 Ill. Reg. 12999, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 362, effective December 27, 1988; amended in R89-1 at 13 Ill. Reg. 18278, effective November 13, 1989; amended in R89-2 at 14 Ill. Reg. 3075, effective February 20, 1990; amended in R89-9 at 14 Ill. Reg. 6225, effective April 16, 1990; amended in R90-10 at 14 Ill. Reg. 16450, effective September 25, 1990; amended in R90-17 at 15 Ill. Reg. 7934, effective May 9, 1991; amended in R90-11 at 15 Ill. Reg. 9323, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14446, effective September 30, 1991; amended in R91-13 at 16 Ill. Reg. 9489, effective June 9, 1992; amended in R92-1 at 16 Ill. Reg. 17636, effective November 6, 1992; amended in R92-10 at 17 Ill. Reg. 5625, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20545, effective November 22, 1993; amended in R93-16 at 18 Ill. Reg. 6720, effective April 26, 1994; amended in R94-7 at 18 Ill. Reg. 12160, effective July 29, 1994; amended in R94-17 at 18 Ill. Reg. 17480, effective November 23, 1994; amended in R95-6 at 19 Ill. Reg. 9508, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 10929, August 1, 1996; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 256, effective December 16, 1997; amended in R98-12 at 22 Ill. Reg. 7590, effective April 15, 1998; amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

#### SUBPART B: DEFINITIONS

##### Section 720.110 Definitions

When used in 35 Ill. Adm. Code 720 through 726 and 728 only, the following terms have the meanings given below:

"Aboveground tank" means a device meeting the definition of "tank" that is situated in such a way that the entire surface area of the tank is completely above the plane of the adjacent surrounding surface and the entire surface area of the tank (including the tank bottom) is able to be visually inspected.

"Act" or "RCRA" means the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6901 et seq.)

"Active life" of a facility means the period from the initial receipt of hazardous waste at the facility until the Agency receives certification of final closure.

"Active portion" means that portion of a facility where treatment, storage or disposal operations are being or have been conducted after May 19, 1980, and which is not a closed portion. (See also "closed portion" and "inactive portion".)

"Administrator" means the Administrator of the U.S. Environmental Protection Agency or the Administrator's designee.

"Agency" means the Illinois Environmental Protection Agency.

"Ancillary equipment" means any device including, but not limited to, such devices as piping, fittings, flanges, valves and pumps, that is used to distribute, meter or control the flow of hazardous waste from its point of generation to storage or treatment tank(s), between hazardous waste storage and treatment tanks to a point of disposal onsite, or to a point of shipment for disposal off-site.

"Aquifer" means a geologic formation, group of formations or part of a formation capable of yielding a significant amount of groundwater to wells or springs.

"Authorized representative" means the person responsible for the overall operation of a facility or an operational unit (i.e., part of a facility), e.g., the plant manager, superintendent or person of equivalent responsibility.

"Battery" means a device consisting of one or more electrically connected electrochemical cells that is designed to receive, store, and deliver electric energy. An electrochemical cell is a system consisting of an anode, cathode, and an electrolyte, plus such connections (electrical and mechanical) as may be needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.

"Board" means the Illinois Pollution Control Board.

"Boiler" means an enclosed device using controlled flame combustion and having the following characteristics:

The unit must have physical provisions for recovering and exporting thermal energy in the form of steam, heated fluids or heated gases; and the unit's combustion chamber and primary energy recovery ~~Section(s)-section(s)~~ must be of integral design. To be of integral design, the combustion chamber and the primary energy recovery ~~Section(s)-section(s)~~ (such as waterwalls and superheaters) must be physically formed into one manufactured or assembled unit. A unit in which the combustion chamber and the primary energy recovery ~~Section(s)-section(s)~~ are joined only by ducts or connections carrying flue gas is not integrally designed; however, secondary energy recovery equipment (such as economizers or air preheaters) need not be physically formed into the same unit as the combustion chamber and the primary energy recovery ~~Section section~~. The following units are not precluded from being boilers solely because they are not of integral design: process heaters (units that transfer energy directly to a process stream), and fluidized bed combustion units; and

While in operation, the unit must maintain a thermal energy recovery efficiency of at least 60 percent, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

The unit must export and utilize at least 75 percent of the recovered energy, calculated on an annual basis. In this calculation, no credit shall be given for recovered heat used internally in the same unit. (Examples of internal use are the preheating of fuel or combustion air, and the driving of induced or forced draft fans or feedwater pumps); or

The unit is one which the Board has determined, on a case-by-case basis, to be a boiler, after considering the standards in Section 720.132.

"Carbon regeneration unit" means any enclosed thermal treatment device used to regenerate spent activated carbon.

"Certification" means a statement of professional opinion based upon knowledge and belief.

"Closed Portion" means that portion of a facility which an owner or operator has closed in accordance with the approved facility closure plan and all applicable closure requirements. (See also "active portion" and "inactive portion".)

"Component" means either the tank or ancillary equipment of a tank system.

"Confined aquifer" means an aquifer bounded above and below by impermeable beds or by beds of distinctly lower permeability than that of the aquifer itself; an aquifer containing confined groundwater.

"Container" means any portable device in which a material is stored, transported, treated, disposed of or otherwise handled.

"Containment ~~Building building~~" means a hazardous waste management unit that is used to store or treat hazardous waste under the provisions of 35 Ill. Adm. Code 724.Subpart DD and 35 Ill. Adm. Code 725.Subpart DD.

"Contingency plan" means a document setting out an organized, planned and coordinated course of action to be followed in case of a fire, explosion or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

"Corrective action management unit" or "CAMU" means an area within a facility that is designated by the Agency under 35 Ill. Adm. Code 724.Subpart S for the purpose of implementing corrective action requirements under 35 Ill. Adm. Code 724.201 and RCRA section 3008(h). A CAMU shall only be used for the management of remediation wastes pursuant to implementing such corrective action requirements at the facility.  
BOARD NOTE: USEPA must also designate a CAMU until it grants this authority to the Agency. See the note following 35 Ill. Adm. Code 724.652.

"Corrosion expert" means a person who, by reason of knowledge of the physical sciences and the principles of engineering and mathematics, acquired by a professional education and related practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. Such a person must be certified as being qualified by the National Association of Corrosion Engineers (NACE) or be a

registered professional engineer who has certification or licensing that includes education and experience in corrosion control on buried or submerged metal piping systems and metal tanks.

"Designated facility" means a hazardous waste treatment, storage or disposal facility,

Which:

Has received a RCRA permit (or interim status) pursuant to 35 Ill. Adm. Code 702, 703 and 705;

Has received a RCRA permit from USEPA pursuant to 40 CFR 124 and 270 (1992);

Has received a RCRA permit from a state authorized by USEPA pursuant to 40 CFR 271 (1992); or

Is regulated under 35 Ill. Adm. Code 721.106(c)(2) or 266.Subpart F; and

Which has been designated on the manifest by the generator pursuant to 35 Ill. Adm. Code 722.120.

If a waste is destined to a facility in a state, other than Illinois, which has been authorized by USEPA pursuant to 40 CFR 271, but which has not yet obtained authorization to regulate that waste as hazardous, then the designated facility must be a facility allowed by the receiving state to accept such waste.

"Destination facility" means a facility that treats, disposes of, or recycles a particular category of universal waste, except those management activities described in 35 Ill. Adm. Code 733.113(a) and (c) and 733.133(a) and (c). A facility at which a particular category of universal waste is only accumulated is not a destination facility for the purposes of managing that category of universal waste.

"Dike" means an embankment or ridge of either natural or manmade materials used to prevent the movement of liquids, sludges, solids or other materials.

"Director" means the Director of the Illinois Environmental Protection Agency.

"Discharge" or "hazardous waste discharge" means the accidental or intentional spilling, leaking, pumping, pouring, emitting, emptying or dumping of hazardous waste into or on any land or water.

"Disposal" means the discharge, deposit, injection, dumping, spilling, leaking or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including groundwaters.

"Disposal facility" means a facility or part of a facility at which hazardous waste is intentionally placed into or on any land or water and at which waste will remain after closure. The term disposal facility does not include a corrective action management unit (CAMU) into which remediation wastes are placed.

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

"Electric lamp" means the bulb or tube portion of a lighting device specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infrared regions of the electromagnetic spectrum. BOARD NOTE: The definition of "electric lamp" was added pursuant to Section 22.23a of the Act [415 ILCS 5/22.23a] (see P.A. 90-502, effective August 19, 1997).

"Elementary neutralization unit" means a device which:

Is used for neutralizing wastes which are hazardous only because they exhibit the corrosivity characteristic defined in 35 Ill. Adm. Code 721.122 or are listed in 35 Ill. Adm. Code 721.Subpart D only for this reason; and

Meets the definition of tank, tank system, container, transport vehicle or vessel in this Section.

"EPA hazardous waste number" or "USEPA hazardous waste number" means the number assigned by USEPA to each

hazardous waste listed in 35 Ill. Adm. Code 721.Subpart D and to each characteristic identified in 35 Ill. Adm. Code 721.Subpart C.

"EPA identification number" or "USEPA identification number" means the number assigned by USEPA pursuant to 35 Ill. Adm. Code 722 through 725 to each generator, transporter and treatment, storage or disposal facility.

"EPA region" or "USEPA region" means the states and territories found in any one of the following ten regions:

Region I: Maine, Vermont, New Hampshire, Massachusetts, Connecticut and Rhode Island

Region II: New York, New Jersey, Commonwealth of Puerto Rico and the U.S. Virgin Islands

Region III: Pennsylvania, Delaware, Maryland, West Virginia, Virginia and the District of Columbia

Region IV: Kentucky, Tennessee, North Carolina, Mississippi, Alabama, Georgia, South Carolina and Florida

Region V: Minnesota, Wisconsin, Illinois, Michigan, Indiana and Ohio

Region VI: New Mexico, Oklahoma, Arkansas, Louisiana and Texas

Region VII: Nebraska, Kansas, Missouri and Iowa

Region VIII: Montana, Wyoming, North Dakota, South Dakota, Utah and Colorado

Region IX: California, Nevada, Arizona, Hawaii, Guam, American Samoa and Commonwealth of the Northern Mariana Islands

Region X: Washington, Oregon, Idaho and Alaska

"Equivalent method" means any testing or analytical method approved by the Board pursuant to Section 720.120.

"Existing hazardous waste management (HWM) facility" or "existing facility" means a facility which was in operation or for which construction commenced on or

before November 19, 1980. A facility had commenced construction if the owner or operator had obtained the federal, state, and local approvals or permits necessary to begin physical construction and either:

A continuous on-site, physical construction program had begun or

The owner or operator had entered into contractual obligations which could not be canceled or modified without substantial loss for physical construction of the facility to be completed within a reasonable time.

"Existing portion" means that land surface area of an existing waste management unit, included in the original Part A permit application, on which wastes have been placed prior to the issuance of a permit.

"Existing tank system" or "existing component" means a tank system or component that is used for the storage or treatment of hazardous waste and that is in operation, or for which installation has commenced on or prior to July 14, 1986. Installation will be considered to have commenced if the owner or operator has obtained all federal, State, state, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system and if either

A continuous on-site physical construction or installation program has begun; or

The owner or operator has entered into contractual obligations which cannot be canceled or modified without substantial loss for physical construction of the site or installation of the tank system to be completed within a reasonable time.

"Explosives or munitions emergency" means a situation involving the suspected or detected presence of unexploded ordnance (UXO), damaged or deteriorated explosives or munitions, an improvised explosive device (IED), other potentially explosive material or device, or other potentially harmful military chemical munitions or device, that creates an actual or potential imminent threat to human health, including safety, or the environment, including property, as determined by an explosives or munitions emergency response specialist. Such situations may require immediate and expeditious action by an explosives or

munitions emergency response specialist to control, mitigate, or eliminate the threat.

"Explosives or munitions emergency response" means all immediate response activities by an explosives and munitions emergency response specialist to control, mitigate, or eliminate the actual or potential threat encountered during an explosives or munitions emergency. An explosives or munitions emergency response may include in-place render-safe procedures, treatment, or destruction of the explosives or munitions and/or transporting those items to another location to be rendered safe, treated, or destroyed. Any reasonable delay in the completion of an explosives or munitions emergency response caused by a necessary, unforeseen, or uncontrollable circumstance will not terminate the explosives or munitions emergency. Explosives and munitions emergency responses can occur on either public or private lands and are not limited to responses at RCRA facilities.

"Explosives or munitions emergency response specialist" means an individual trained in chemical or conventional munitions or explosives handling, transportation, render-safe procedures, or destruction techniques. Explosives or munitions emergency response specialists include U.S. Department of Defense (U.S. DOD) emergency explosive ordnance disposal (EOD), technical escort unit (TEU), and U.S. DOD-certified civilian or contractor personnel and other federal, state, or local government or civilian personnel who are similarly trained in explosives or munitions emergency responses.

"Facility" means:

All contiguous land and structures, other appurtenances, and improvements on the land used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (e.g., one or more landfills, surface impoundments, or combinations of them).

For the purpose of implementing corrective action under 35 Ill. Adm. Code 724.201, all contiguous property under the control of the owner or operator seeking a permit under Subtitle C of RCRA. This definition also applies to facilities implementing corrective action under RCRA Section 3008(h).

"Federal agency" means any department, agency or other instrumentality of the federal government, any independent agency or establishment of the federal government including any government corporation and the Government Printing Office.

"Federal, state, and local approvals or permits necessary to begin physical construction" means permits and approvals required under federal, state, or local hazardous waste control statutes, regulations or ordinances.

"Final closure" means the closure of all hazardous waste management units at the facility in accordance with all applicable closure requirements so that hazardous waste management activities under 35 Ill. Adm. Code 724 and 725 are no longer conducted at the facility unless subject to the provisions of 35 Ill. Adm. Code 722.134.

"Food-chain crops" means tobacco, crops grown for human consumption and crops grown for feed for animals whose products are consumed by humans.

"Freeboard" means the vertical distance between the top of a tank or surface impoundment dike and the surface of the waste contained therein.

"Free liquids" means liquids which readily separate from the solid portion of a waste under ambient temperature and pressure.

"Generator" means any person, by site, whose act or process produce hazardous waste identified or listed in 35 Ill. Adm. Code 721 or whose act first causes a hazardous waste to become subject to regulation.

"Groundwater" means water below the land surface in a zone of saturation.

"Hazardous waste" means a hazardous waste as defined in 35 Ill. Adm. Code 721.103.

"Hazardous waste constituent" means a constituent which caused the hazardous waste to be listed in 35 Ill. Adm. Code 721.Subpart D, or a constituent listed in ~~of~~ 35 Ill. Adm. Code 721.124.

"Hazardous waste management unit" is a contiguous area of land on or in which hazardous waste is placed, or the largest area in which there is significant likelihood of mixing hazardous waste constituents in

the same area. Examples of hazardous waste management units include a surface impoundment, a waste pile, a land treatment area, a landfill cell, an incinerator, a tank and its associated piping and underlying containment system and a container storage area. A container alone does not constitute a unit; the unit includes containers and the land or pad upon which they are placed.

"Inactive portion" means that portion of a facility which is not operated after November 19, 1980. (See also "active portion" and "closed portion".)

"Incinerator" means any enclosed device that:

Uses controlled flame combustion and neither:

Meets the criteria for classification as a boiler, sludge dryer or carbon regeneration unit, nor

Is listed as an industrial furnace; or

Meets the definition of infrared incinerator or plasma arc incinerator.

"Incompatible waste" means a hazardous waste which is **un**suitable for:

Placement in a particular device or facility because it may cause corrosion or decay of containment materials (e.g., container inner liners or tank walls); or

Commingling with another waste or material under uncontrolled conditions because the commingling might produce heat or pressure, fire or explosion, violent reaction, toxic dusts, mists, fumes or gases or flammable fumes or gases.

(See 35 Ill. Adm. Code 725. Appendix E for examples.)

"Industrial furnace" means any of the following enclosed devices that are integral components of manufacturing processes and that use thermal treatment to accomplish recovery of materials or energy:

Cement kilns

Lime kilns

Aggregate kilns

Phosphate kilns

Coke ovens

Blast furnaces

Smelting, melting and refining furnaces (including pyrometallurgical devices such as cupolas, reverberator furnaces, sintering machines, roasters and foundry furnaces)

Titanium dioxide chloride process oxidation reactors

Methane reforming furnaces

Pulping liquor recovery furnaces

Combustion devices used in the recovery of sulfur values from spent sulfuric acid

Halogen acid furnaces (HAFs) for the production of acid from halogenated hazardous waste generated by chemical production facilities where the furnace is located on the site of a chemical production facility, the acid product has a halogen acid content of at least 3%, the acid product is used in a manufacturing process and, except for hazardous waste burned as fuel, hazardous waste fed to the furnace has a minimum halogen content of 20%, as generated

Any other such device as the Agency determines to be an "Industrial Furnace" on the basis of one or more of the following factors:

The design and use of the device primarily to accomplish recovery of material products;

The use of the device to burn or reduce raw materials to make a material product;

The use of the device to burn or reduce secondary materials as effective substitutes for raw materials, in processes using raw materials as principal feedstocks;

The use of the device to burn or reduce secondary materials as ingredients in an

industrial process to make a material product;

The use of the device in common industrial practice to produce a material product; and

Other relevant factors.

"Individual generation site" means the contiguous site at or on which one or more hazardous wastes are generated. An individual generation site, such as a large manufacturing plant, may have one or more sources of hazardous waste but is considered a single or individual generation site if the site or property is contiguous.

"Infrared incinerator" means any enclosed device which uses electric powered resistance heaters as a source of radiant heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.

"Inground tank" means a device meeting the definition of "tank" whereby a portion of the tank wall is situated to any degree within the ground, thereby preventing visual inspection of that external surface area of the tank that is in the ground.

"In operation" refers to a facility which is treating, storing or disposing of hazardous waste.

"Injection well" means a well into which fluids are being injected. (See also "underground injection".)

"Inner liner" means a continuous layer of material placed inside a tank or container which protects the construction materials of the tank or container from the contained waste or reagents used to treat the waste.

"Installation inspector" means a person who, by reason of knowledge of the physical sciences and the principles of engineering, acquired by a professional education and related practical experience, is qualified to supervise the installation of tank systems.

"International shipment" means the transportation of hazardous waste into or out of the jurisdiction of the United States.

"Land treatment facility" means a facility or part of a facility at which hazardous waste is applied onto or incorporated into the soil surface; such facilities are disposal facilities if the waste will remain after closure.

"Landfill" means a disposal facility or part of a facility where hazardous waste is placed in or on land and which is not a pile, a land treatment facility, a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground mine, a cave, or a corrective action management unit (CAMU).

"Landfill cell" means a discrete volume of a hazardous waste landfill which uses a liner to provide isolation of wastes from adjacent cells or wastes. Examples of landfill cells are trenches and pits.

"LDS" means leak detection system.

"Leachate" means any liquid, including any suspended components in the liquid, that has percolated through or drained from hazardous waste.

"Liner" means a continuous layer of natural or manmade materials beneath or on the sides of a surface impoundment, landfill or landfill cell, which restricts the downward or lateral escape of hazardous waste, hazardous waste constituents or leachate.

"Leak-detection system" means a system capable of detecting the failure of either the primary or secondary containment structure or the presence of a release of hazardous waste or accumulated liquid in the secondary containment structure. Such a system must employ operational controls (e.g., daily visual inspections for releases into the secondary containment system of aboveground tanks) or consist of an interstitial monitoring device designed to detect continuously and automatically the failure of the primary or secondary containment structure or the presence of a release of hazardous waste into the secondary containment structure.

"Management" or "hazardous waste management" means the systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery and disposal of hazardous waste.

"Manifest" means the shipping document originated and signed by the generator which contains the information required by 35 Ill. Adm. Code 722.Subpart B.

"Manifest document number" means the USEPA twelve digit identification number assigned to the generator plus a unique five digit document number assigned to the manifest by the generator for recording and reporting purposes.

"Mercury-containing lamp" means an electric lamp into which mercury is purposely introduced by the manufacturer for the operation of the lamp. Mercury-containing lamps include, but are not limited to, fluorescent lamps and high-intensity discharge lamps. BOARD NOTE: The definition of "mercury-containing lamp" was added pursuant to Section 22.23a of the Act [415 ILCS 5/22.23a] (see P.A. 90-502, effective August 19, 1997).

"Military munitions" means all ammunition products and components produced or used by or for the U.S. Department of Defense or the U.S. Armed Services for national defense and security, including military munitions under the control of the U.S. Department of Defense, the U.S. Coast Guard, the U.S. Department of Energy (U.S. DOE), and National Guard personnel. The term military munitions includes: confined gaseous, liquid, and solid propellants, explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries used by U.S. DOD components, including bulk explosives and chemical warfare agents, chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges, and devices and components of these items and devices. Military munitions do not include wholly inert items, improvised explosive devices, and nuclear weapons, nuclear devices, and nuclear components of these items and devices. However, the term does include non-nuclear components of nuclear devices, managed under U.S. DOE's nuclear weapons program after all sanitization operations required under the Atomic Energy Act of 1954, as amended, have been completed.

"Mining overburden returned to the mine site" means any material overlying an economic mineral deposit which is

removed to gain access to that deposit and is then used for reclamation of a surface mine.

"Miscellaneous unit" means a hazardous waste management unit where hazardous waste is treated, stored or disposed of and which is not a container, tank, tank system, surface impoundment, pile, land treatment unit, landfill, incinerator, boiler, industrial furnace, underground injection well with appropriate technical standards under 35 Ill. Adm. Code 730, containment building, corrective action management unit (CAMU), or a unit eligible for a research, development and demonstration permit under 35 Ill. Adm. Code 703.231.

"Movement" means that hazardous waste transported to a facility in an individual vehicle.

"New hazardous waste management facility" or "new facility" means a facility which began operation, or for which construction commenced, after November 19, 1980. (See also "Existing hazardous waste management facility".)

"New tank system" or "new tank component" means a tank system or component that will be used for the storage or treatment of hazardous waste and for which installation commenced after July 14, 1986; except, however, for purposes of 35 Ill. Adm. Code 724.293(g)-(2) and 725.293(g)(2), a new tank system is one for which construction commences after July 14, 1986. (See also "existing tank system".)

"Onground tank" means a device meeting the definition of "tank" that is situated in such a way that the bottom of the tank is on the same level as the adjacent surrounding surfaces so that the external tank bottom cannot be visually inspected.

"On-site" means the same or geographically contiguous property which may be divided by public or private right-of-way, provided the entrance and exit between the properties is at a crossroads intersection and access is by crossing as opposed to going along the right-of-way. Noncontiguous properties owned by the same person but connected by a right-of-way which he controls and to which the public does not have access is also considered on-site property.

"Open burning" means the combustion of any material without the following characteristics:

Control of combustion air to maintain adequate temperature for efficient combustion;

Containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion; and

Control of emission of the gaseous combustion products.

(See also "incineration" and "thermal treatment".)

"Operator" means the person responsible for the overall operation of a facility.

"Owner" means the person who owns a facility or part of a facility.

"Partial closure" means the closure of a hazardous waste management unit in accordance with the applicable closure requirements of 35 Ill. Adm. Code 724 or 725 at a facility which contains other active hazardous waste management units. For example, partial closure may include the closure of a tank (including its associated piping and underlying containment systems), landfill cell, surface impoundment, waste pile or other hazardous waste management unit, while other units of the same facility continue to operate.

"Person" means an individual, trust, firm, joint stock company, federal agency, corporation (including a government corporation), partnership, association, state, municipality, commission, political subdivision of a state or any interstate body.

"Personnel" or "facility personnel" means all persons who work at or oversee the operations of a hazardous waste facility and whose actions or failure to act may result in noncompliance with the requirements of 35 Ill. Adm. Code 724 or 725.

"Pesticide" means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest or intended for use as a plant regulator, defoliant, or desiccant, other than any article that fulfills one of the following descriptions:

It is a new animal drug under Section 201(v) of the Federal Food, Drug and Cosmetic Act (FFDCA; 21 U.S.C. § 321(v)), incorporated by reference in Section 720.111,

It is an animal drug that has been determined by regulation of the federal Secretary of Health and Human Services pursuant to FFDCA Section 512, incorporated by reference in Section 720.111, to be an exempted new animal drug, or

It is an animal feed under FFDCA Section 201(w) (21 U.S.C. § 321(w)), incorporated by reference in Section 720.111 that bears or contains any substances described in either of the two preceding subsections of this definition.

BOARD NOTE: The second exception of corresponding 40 CFR 260.10 reads as follows: "Is an animal drug that has been determined by regulation of the Secretary of Health and Human Services not to be a new animal drug". This is very similar to the language of Section 2(u) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA; 7 U.S.C. § 136(u)). The three exceptions, taken together, appear intended not to include as "pesticide" any material within the scope of federal Food and Drug Administration regulation. The Board codified this provision with the intent of retaining the same meaning as its federal counterpart while adding the definiteness required under Illinois law.

"Pile" means any noncontainerized accumulation of solid, non-flowing hazardous waste that is used for treatment or storage, and that is not a containment building.

"Plasma arc incinerator" means any enclosed device which uses a high intensity electrical discharge or arc as a source of heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.

"Point source" means any discernible, confined and discrete conveyance including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation or vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

"Publicly owned treatment works" or "POTW" is as defined in 35 Ill. Adm. Code 310.110.

"Qualified groundwater scientist" means a scientist or engineer who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and has sufficient training and experience in groundwater hydrology and related fields, as demonstrated by state registration, professional certifications or completion of accredited university courses that enable the individual to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport.

BOARD NOTE: "State registration" includes, but is not limited to, registration as a professional engineer with the Department of Professional Regulation, pursuant to 225 ILCS 325/1 and 68 Ill. Adm. Code 1380. "Professional certification" includes, but is not limited to, certification under the certified ground water professional program of the National Ground Water Association.

"Regional Administrator" means the Regional Administrator for the EPA Region in which the facility is located or the Regional Administrator's designee.

"Remediation waste" means all solid and hazardous wastes, and all media (including groundwater, surface water, soils, and sediments) and debris that contain listed hazardous wastes or which themselves exhibit a hazardous waste characteristic which are managed for the purpose of implementing corrective action requirements under 35 Ill. Adm. Code 724.201 and RCRA Section 3008(h). For a given facility, remediation wastes may originate only from within the facility boundary, but may include waste managed in implementing RCRA sections 3004(v) or 3008(h) for releases beyond the facility boundary.

"Replacement unit" means a landfill, surface impoundment or waste pile unit from which all or substantially all of the waste is removed, and which is subsequently reused to treat, store or dispose of hazardous waste. "Replacement unit" does not include a unit from which waste is removed during closure, if the subsequent reuse solely involves the disposal of waste from that unit and other closing units or corrective action areas at the facility, in accordance with a closure or corrective action plan approved by USEPA or the Agency.

"Representative sample" means a sample of a universe or whole (e.g., waste pile, lagoon, groundwater) which can be expected to exhibit the average properties of the universe or whole.

"Runoff" means any rainwater, leachate or other liquid that drains over land from any part of a facility.

"Runon" means any rainwater, leachate or other liquid that drains over land onto any part of a facility.

"Saturated zone" or "zone of saturation" means that part of the earth's crust in which all voids are filled with water.

"SIC Code" means Standard Industrial Code as defined in Standard Industrial Classification Manual, incorporated by reference in Section 720.111.

"Sludge" means any solid, semi-solid or liquid waste generated from a municipal, commercial or industrial wastewater treatment plant, water supply treatment plant or air pollution control facility exclusive of the treated effluent from a wastewater treatment plant.

"Sludge dryer" means any enclosed thermal treatment device which is used to dehydrate sludge and which has a total thermal input, excluding the heating value of the sludge itself, of 2500 Btu/lb or less of sludge treated on a wet weight basis.

"Small Quantity Generator" means a generator which generates less than 1000 kg of hazardous waste in a calendar month.

"Solid waste" means a solid waste as defined in 35 Ill. Adm. Code 721.102.

"Sorbent" means a material that is used to soak up free liquids by either adsorption or absorption, or both.

"Sorb" means to either adsorb or absorb, or both.

"Sump" means any pit or reservoir that meets the definition of tank and those troughs or trenches connected to it that serve to collect hazardous waste for transport to hazardous waste storage, treatment or disposal facilities; except that, as used in the landfill, surface impoundment and waste pile rules, "sump" means any lined pit or reservoir that serves to collect liquids drained from a leachate collection and removal system or leak detection system for subsequent removal from the system.

"State" means any of the several states, the District of Columbia, the Commonwealth of Puerto Rico, the

Virgin Islands, Guam, American Samoa and the Commonwealth of the Northern Mariana Islands.

"Storage" means the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed of or stored elsewhere.

"Surface impoundment" or "impoundment" means a facility or part of a facility which is a natural topographic depression, manmade excavation or diked area formed primarily of earthen materials (although it may be lined with manmade materials) which is designed to hold an accumulation of liquid wastes or wastes containing free liquids and which is not an injection well. Examples of surface impoundments are holding, storage, settling and aeration pits, ponds and lagoons.

"Tank" means a stationary device, designed to contain an accumulation of hazardous waste which is constructed primarily of nonearthen materials (e.g., wood, concrete, steel, plastic) which provide structural support.

"Tank system" means a hazardous waste storage or treatment tank and its associated ancillary equipment and containment system.

"Thermal treatment" means the treatment of hazardous waste in a device which uses elevated temperatures as the primary means to change the chemical, physical or biological character or composition of the hazardous waste. Examples of thermal treatment processes are incineration, molten salt, pyrolysis, calcination, wet air oxidation and microwave discharge. (See also "incinerator" and "open burning".)

"Thermostat" means a temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element and mercury-containing ampules that have been removed from such a temperature control device in compliance with the requirements of 35 Ill. Adm. Code 733.113(c)(2) or 733.133(c)(2).

"Totally enclosed treatment facility" means a facility for the treatment of hazardous waste which is directly connected to an industrial production process and which is constructed and operated in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment. An example is a pipe in which waste acid is neutralized.

"Transfer facility" means any transportation related facility including loading docks, parking areas, storage areas and other similar areas where shipments of hazardous waste are held during the normal course of transportation.

"Transport vehicle" means a motor vehicle or rail car used for the transportation of cargo by any mode. Each cargo-carrying body (trailer, railroad freight car, etc.) is a separate transport vehicle.

"Transportation" means the movement of hazardous waste by air, rail, highway or water.

"Transporter" means a person engaged in the off-site transportation of hazardous waste by air, rail, highway or water.

"Treatability study" means:

A study in which a hazardous waste is subjected to a treatment process to determine:

Whether the waste is amenable to the treatment process.

What pretreatment (if any) is required.

The optimal process conditions needed to achieve the desired treatment.

The efficiency of a treatment process for a specific waste or wastes. Or,

The characteristics and volumes of residuals from a particular treatment process.

Also included in this definition for the purpose of 35 Ill. Adm. Code 721.104(e) and (f) exemptions are liner compatibility, corrosion and other material compatibility studies and toxicological and health effects studies. A "treatability study" is not a means to commercially treat or dispose of hazardous waste.

"Treatment" means any method, technique or process, including neutralization, designed to change the physical, chemical or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to recover energy or material resources from the waste or so as to render such waste non-hazardous or less hazardous; safer to transport,

store or dispose of; or amenable for recovery, amenable for storage or reduced in volume.

"Treatment zone" means a soil area of the unsaturated zone of a land treatment unit within which hazardous constituents are degraded, transformed or immobilized.

"Underground injection" means the subsurface emplacement of fluids through a bored, drilled or driven well; or through a dug well, where the depth of the dug well is greater than the largest surface dimension. (See also "injection well".)

"Underground tank" means a device meeting the definition of "tank" whose entire surface area is totally below the surface of and covered by the ground.

"Unfit-for-use tank system" means a tank system that has been determined through an integrity assessment or other inspection to be no longer capable of storing or treating hazardous waste without posing a threat of release of hazardous waste to the environment.

"United States" means the 50 ~~States~~ states, the District of Columbia, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa and the Commonwealth of the Northern Mariana Islands.

"Universal waste" means any of the following hazardous wastes that are managed under the universal waste requirements of 35 Ill. Adm. Code 733:

Batteries, as described in 35 Ill. Adm. Code 733.102;

Pesticides, as described in 35 Ill. Adm. Code 733.103;

Thermostats, as described in 35 Ill. Adm. Code 733.104; and

Mercury-containing lamps, as described in 35 Ill. Adm. Code 733.107.

BOARD NOTE: Mercury-containing lamps were added as universal waste pursuant to Section 22.23a of the Act [415 ILCS 5/22.23a] (see P.A. 90-502, effective August 19, 1997).

"Universal waste handler" means either of the following:

A generator (as defined in this Section) of universal waste; or

The owner or operator of a facility, including all contiguous property, that receives universal waste from other universal waste handlers, accumulates the universal waste, and sends that universal waste to another universal waste handler, to a destination facility, or to a foreign destination.

"Universal waste handler" does not mean:

A person that treats (except under the provisions of Section 733.113(a) or (c) or 733.133(a) or (c)), disposes of, or recycles universal waste; or

A person engaged in the off-site transportation of universal waste by air, rail, highway, or water, including a universal waste transfer facility.

"Universal waste transporter" means a person engaged in the off-site transportation of universal waste by air, rail, highway, or water.

"Unsaturated zone" or "zone of aeration" means the zone between the land surface and the water table.

"Uppermost aquifer" means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary.

"USDOT" or "Department of Transportation" means the United States Department of Transportation.

"Used oil" means any oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of such use is contaminated by physical or chemical impurities.

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

"Vessel" includes every description of watercraft, used or capable of being used as a means of transportation on the water.

"Wastewater treatment unit" means a device which:

Is part of a wastewater treatment facility which has an NPDES permit pursuant to 35 Ill. Adm. Code 309 or a pretreatment permit or authorization to discharge pursuant to 35 Ill. Adm. Code 310; and

Receives and treats or stores an influent wastewater which is a hazardous waste as defined in 35 Ill. Adm. Code 721.103, or generates and accumulates a wastewater treatment sludge which is a hazardous waste as defined in 35 Ill. Adm. Code 721.103, or treats or stores a wastewater treatment sludge which is a hazardous waste as defined in 35 Ill. Adm. Code 721.103; and

Meets the definition of tank or tank system in this Section.

"Water (bulk shipment)" means the bulk transportation of hazardous waste which is loaded or carried on board a vessel without containers or labels.

"Well" means any shaft or pit dug or bored into the earth, generally of a cylindrical form, and often walled with bricks or tubing to prevent the earth from caving in.

"Well injection" (See "underground injection").

"Zone of engineering control" means an area under the control of the owner or operator that, upon detection of a hazardous waste release, can be readily cleaned up prior to the release of hazardous waste or hazardous constituents to groundwater or surface water.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### Section 720.111 References

- a) The following publications are incorporated by reference for the purposes of this Part and 35 Ill. Adm. Code 703 through 705, 721 through 726, 728, 730, 731, 733, 738, and 739:

ACI. Available from the American Concrete Institute, Box 19150, Redford Station, Detroit, Michigan 48219:

ACI 318-83: "Building Code Requirements for Reinforced Concrete", adopted September, 1983.

ANSI. Available from the American National Standards Institute, 1430 Broadway, New York, New York 10018, 212-354-3300:

ANSI B31.3 and B31.4. See ASME/ANSI B31.3 and B31.4.

API. Available from the American Petroleum Institute, 1220 L Street, N.W., Washington, D.C. 20005, 202-682-8000:

"Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems", API Recommended Practice 1632, Second Edition, December, 1987.

"Evaporative Loss from External Floating-Roof Tanks", API Publication 2517, Third Edition, February, 1989.

"Guide for Inspection of Refinery Equipment, Chapter XIII, Atmospheric and Low Pressure Storage Tanks", 4th Edition, 1981, reaffirmed December, 1987.

"Installation of Underground Petroleum Storage Systems", API Recommended Practice 1615, Fourth Edition, November, 1987.

APTI. Available from the Air and Waste Management Association, Box 2861, Pittsburgh, PA 15230, 412-232-3444:

APTI Course 415: Control of Gaseous Emissions, USEPA Publication EPA-450/2-81-005, December, 1981.

ASME. Available from the American Society of Mechanical Engineers, 345 East 47th Street, New York, NY 10017, 212-705-7722:

"Chemical Plant and Petroleum Refinery Piping", ASME/ANSI B31.3-1987, as supplemented by B31.3a-1988 and B31.3b-1988. Also available from ANSI.

"Liquid Transportation Systems for Hydrocarbons, Liquid Petroleum Gas, Anhydrous Ammonia, and Alcohols", ASME/ANSI B31.4-1986, as supplemented by B31.4a-1987. Also available from ANSI.

ASTM. Available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103, 215-299-5400:

ASTM C 94-90, Standard Specification for Ready-Mixed Concrete, approved March 30, 1990.

ASTM D 88-87, Standard Test Method for Saybolt Viscosity, April 24, 1981, reapproved January, 1987.

ASTM D 93-85, Standard Test Methods for Flash Point by Pensky-Martens Closed Tester, approved October 25, 1985.

ASTM D 1946-90, Standard Practice for Analysis of Reformed Gas by Gas Chromatography, Approved March 30, 1990.

ASTM D 2161-87, Standard Practice for Conversion of Kinematic Viscosity to Saybolt Universal or to Saybolt Furol Viscosity, March 27, 1987.

ASTM D 2267-88, Standard Test Method for Aromatics in Light Naphthas and Aviation Gasolines by Gas Chromatography, approved November 17, 1988.

ASTM D 2382-88, Standard Test Method for Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High Precision Method), approved October 31, 1988.

~~ASTM D 2879-86, Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, approved October 31, 1986.~~

ASTM D 2879-92, Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, approved 1992.

ASTM D 3828-87, Standard Test Methods for Flash Point of Liquids by Setaflash Closed Tester, approved December 14, 1988.

ASTM E 168-88, Standard Practices for General Techniques of Infrared Quantitative Analysis, approved May 27, 1988.

ASTM E 169-87, Standard Practices for General Techniques of Ultraviolet-Visible Quantitative Analysis, approved February 1, 1987.

ASTM E 260-85, Standard Practice for Packed Column Gas Chromatography, approved June 28, 1985.

~~ASTM E 926-88 C, Standard Test Methods for Preparing Refuse Derived Fuel (RDF) Samples for Analysis of Metals, Bomb Acid Digestion Method, approved March 25, 1988.~~

ASTM Method G 21-70 (1984a) -- Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi.

ASTM Method G 22-76 (1984b) -- Standard Practice for Determining Resistance of Plastics to Bacteria.

GPO. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, 202-783-3238:

Standard Industrial Classification Manual (1972), and 1977 Supplement, republished in 1983.

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA Publication number SW-846 (Third Edition, November, 1986), as amended by Updates I (July, 1992), II (September, 1994), IIA (August, 1993), and IIB (January, 1995), and III (December, 1996) (Document Number 955-001-00000-1).

NACE. Available from the National Association of Corrosion Engineers, 1400 South Creek Dr., Houston, TX 77084, 713-492-0535:

"Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems", NACE Recommended Practice **RP0285-85 RP-02-85**, approved March, 1985.

NFPA. Available from the National Fire Protection Association, Batterymarch Park, Boston, MA 02269, 617-770-3000 or 800-344-3555:

"Flammable and Combustible Liquids Code" NFPA 30, issued July 17, 1987. Also available from ANSI.

NTIS. Available from the U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, 703-487-4600:

APTI Course 415: Control of Gaseous Emissions, USEPA Publication EPA-450/2-81-005, December, 1981.

"Generic Quality Assurance Project Plan for Land Disposal Restrictions Program", EPA/530-SW-87-011, March 15, 1987. (Document number PB 88-170766.)

"~~Guidance-Guideline~~ on Air Quality Models", Revised 1986. (Document number PB86-245-248 (Guideline) and PB88-150-958 (Supplement), ~~also set forth at 40 CFR 51, appendix W~~).

"Methods for Chemical Analysis of Water and Wastes", Third Edition, March, 1983. (Document number PB 84-128677).

"Methods Manual for Compliance with BIF Regulations", December, 1990. (Document number PB91-120-006).

"Petitions to Delist Hazardous Wastes -- A Guidance Manual, Second Edition", EPA/530-R-93-007, March, 1993. (Document Number PB 93-169 365).

~~"Procedures Manual for Ground Water Monitoring at Solid Waste Disposal Facilities", EPA 530/SW 611, 1977. (Document number PB 84 174820).~~

"Screening Procedures for Estimating the Air Quality Impact of Stationary Sources", October, 1992, Publication Number EPA-450/R-92-019.

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA Publication number SW-846 (Third Edition, November, 1986), as amended by Updates I (July, 1992), II (September, 1994), IIA (August, 1993), IIB

(January, 1995), and III (December, 1996)  
(Document Number 955-001-00000-1).

OECD. Organisation for Economic Co-operation and Development, Environment Directorate, 2 rue Andre Pascal, 75775 Paris Cedex 16, France):

OECD Guideline for Testing of Chemicals, Method 301B: "CO<sub>2</sub> Evolution (Modified Sturm Test)", adopted 17 July 1992.

Table 2.B of the Annex of OECD Council Decision C(88)90(Final) of 27 May 1988.

STI. Available from the Steel Tank Institute, 728 Anthony Trail, Northbrook, IL 60062, 708-498-1980:

"Standard for Dual Wall Underground Steel Storage Tanks" (1986).

U.S. DOD. Available from the United States Department of Defense:

"DOD Ammunition and Explosive Safety Standards" (DOD 6055.9-STD), as in effect on November 8, 1995

The Motor Vehicle Inspection Report (DD Form 626), as in effect on November 8, 1995.

Requisition Tracking Form (DD Form 1348), as in effect on November 8, 1995.

The Signature and Talley Record (DD Form 1907), as in effect on November 8, 1995.

Special Instructions for Motor Vehicle Drivers (DD Form 836), as in effect on November 8, 1995.

USEPA. Available from United States Environmental Protection Agency, Office of Drinking Water, State Programs Division, WH 550 E, Washington, D.C. 20460:

"Technical Assistance Document: Corrosion, Its Detection and Control in Injection Wells", EPA 570/9-87-002, August, 1987.

USEPA. Available from Receptor Analysis Branch, USEPA (MD-14), Research Triangle Park, NC 27711:

"Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised", October, 1992, Publication Number EPA-450/R-92-019.

USEPA. Available from RCRA Information Center (RIC), 1235 Jefferson-Davis Highway, first floor, Arlington, VA 22203 (Docket # F-94-IEHF-FFFFF):

OECD Amber List of Wastes, Appendix 4 to the OECD Council Decision C(92)39/FINAL (Concerning the Control of Transfrontier Movements of Wastes Destined for Recovery Operations) (May 1993).

OECD Green List of Wastes, Appendix 3 to the OECD Council Decision C(92)39/FINAL (Concerning the Control of Transfrontier Movements of Wastes Destined for Recovery Operations) (May 1994).

OECD Red List of Wastes, Appendix 5 to the OECD Council Decision C(92)39/FINAL (Concerning the Control of Transfrontier Movements of Wastes Destined for Recovery Operations) (May 1993).

Table 2.B of the Annex of OECD Council Decision C(88)90(Final) (May 27, 1988).

U.S. GSA. Available from the United States Government Services Administration:

Government Bill of Lading (GBL) (GSA Standard Form 1109), as in effect on November 8, 1995.

- b) Code of Federal Regulations. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20401, 202-783-3238:

10 CFR 20, Appendix B (1997)

40 CFR 51.100(ii) (1997)

40 CFR 51, Subpart-Appendix W (1997)

40 CFR 52.741, Appendix B (1997)

40 CFR 60 (1997)

40 CFR 61, Subpart V (1997)

- 40 CFR 136 (1997)
- 40 CFR 142 (1997)
- 40 CFR 220 (1997)
- 40 CFR 260.20 (1997)
- 40 CFR 264 (1997)
- 40 CFR 268.Appendix IX (1997)
- 40 CFR 302.4, 302.5 and 302.6 (1997)
- 40 CFR 761 (1997)
- 49 CFR 171 (1997)
- 49 CFR 173 (1997)
- 49 CFR 178 (1997)

c) Federal Statutes

Section 3004 of the Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.), as amended through December 31, 1987.

Sections 201(v), 201(w), and 360b(j) of the Federal Food, Drug, and Cosmetic Act (FFDCA; 21 U.S.C. §§ 321(v), 321(w) & 512(j)), as amended through October 25, 1994.

Section 1412 of the Department of Defense Authorization Act of 1986, Pub. L. 99-145, 50 U.S.C. 1521(j)(1) (1997)

d) This Section incorporates no later editions or amendments.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

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

PART 721  
 IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

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

SOURCE: Adopted in R81-22, 43 PCB 427, at 5 Ill. Reg. 9781, effective May 17, 1982; amended and codified in R81-22, 45 PCB 317, at 6 Ill. Reg. 4828, effective May 17, 1982; amended in R82-18, 51 PCB 31, at 7 Ill. Reg. 2518, effective February 22, 1983; amended in R82-19, 53 PCB 131, at 7 Ill. Reg. 13999, effective October 12, 1983; amended in R84-34, 61 PCB 247, at 8 Ill. Reg. 24562, effective December 11, 1984; amended in R84-9, at 9 Ill. Reg. 11834, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 998, effective January 2, 1986; amended in R85-2 at 10 Ill. Reg. 8112, effective May 2, 1986; amended in R86-1 at 10 Ill. Reg. 14002, effective August 12, 1986; amended in R86-19 at 10 Ill. Reg. 20647, effective December 2, 1986; amended in R86-28 at 11 Ill. Reg. 6035, effective March 24, 1987; amended in R86-46 at 11 Ill. Reg. 13466, effective August 4, 1987; amended in R87-32 at 11 Ill. Reg. 16698, effective September 30, 1987; amended in R87-5 at 11 Ill. Reg. 19303, effective November 12, 1987; amended in R87-26 at 12 Ill. Reg. 2456, effective January 15, 1988; amended in R87-30 at 12 Ill. Reg. 12070, effective July 12, 1988; amended in R87-39 at 12 Ill. Reg. 13006, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 382, effective December 27, 1988; amended in R89-1 at 13 Ill. Reg. 18300, effective November 13, 1989; amended in R90-2 at 14 Ill. Reg. 14401, effective August 22, 1990; amended in R90-10 at 14 Ill. Reg. 16472, effective September 25, 1990; amended in R90-17 at 15 Ill. Reg. 7950, effective May 9, 1991; amended in R90-11 at 15 Ill. Reg. 9332, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14473, effective September 30, 1991; amended in R91-12 at 16 Ill. Reg. 2155, effective January 27, 1992; amended in R91-26 at 16 Ill. Reg. 2600, effective February 3, 1992; amended in R91-13 at 16 Ill. Reg. 9519, effective June 9, 1992; amended in R92-1 at 16 Ill. Reg. 17666, effective November 6, 1992; amended in R92-10 at 17 Ill. Reg. 5650, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20568, effective November 22, 1993; amended in R93-16 at 18 Ill. Reg. 6741, effective April 26, 1994; amended in R94-7 at 18 Ill. Reg. 12175, effective July 29, 1994; amended in

R94-17 at 18 Ill. Reg. 17490, effective November 23, 1994; amended in R95-6 at 19 Ill. Reg. 9522, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 10963, effective August 1, 1996; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 275, effective December 16, 1997; amended in R98-12 at 22 Ill. Reg. 7615, effective April 15, 1998; amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

#### SUBPART A: GENERAL PROVISIONS

##### Section 721.101 Purpose and Scope

- a) This Part identifies those solid wastes which are subject to regulation as hazardous wastes under 35 Ill. Adm. Code 702, 703, 705 and 722 through 725 and 728, and which are subject to the notification requirements of Section 3010 of the Resource Conservation and Recovery Act (RCRA) (42 U.S.C. 6901 et seq.). In this Part:
  - 1) Subpart A defines the terms "solid waste" and "hazardous waste," identifies those wastes which are excluded from regulation under 35 Ill. Adm. Code 702, 703, 705 and 722 through 726 and 728, and establishes special management requirements for hazardous waste produced by conditionally exempt small quantity generators and hazardous waste which is recycled.
  - 2) Subpart B sets forth the criteria used to identify characteristics of hazardous waste and to list particular hazardous wastes.
  - 3) Subpart C identifies characteristics of hazardous wastes.
  - 4) Subpart D lists particular hazardous wastes.
- b) Limitations on definition of solid waste:
  - 1) The definition of solid waste contained in this Part applies only to wastes that also are hazardous for purposes of the regulations implementing Subtitle C of ~~the Resource Conservation and Recovery Act RCRA~~. For example, it does not apply to materials (such as non-hazardous scrap, paper, textiles or rubber) that are not otherwise hazardous wastes and that are recycled.

- 2) This Part identifies only some of the materials which are solid wastes and hazardous wastes under Sections 1004(5), 1004(27) and 7003 of RCRA. A material which is not defined as a solid waste in this Part, or is not a hazardous waste identified or listed in this Part, is still a hazardous waste for purposes of those Sections if, in the case of Section 7003 of RCRA, the statutory elements are established.
- c) For the purposes of Sections 721.102 and 721.106:
- 1) A "spent material" is any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing.
  - 2) "Sludge" has the same meaning used in 35 Ill. Adm. Code 720.110.
  - 3) A "by-product" is a material that is not one of the primary products of a production process and is not solely or separately produced by the production process. Examples are process residues such as slags or distillation column bottoms. The term does not include a co-product that is produced for the general public's use and is ordinarily used in the form it is produced by the process.
  - 4) A material is "reclaimed" if it is processed to recover a usable product, or if it is regenerated. Examples are recovery of lead values from spent batteries and regeneration of spent solvents.
  - 5) A material is "used or reused" if it is either:
    - A) Employed as an ingredient (including use as an intermediate) in an industrial process to make a product (for example, distillation bottoms from one process used as feedstock in another process). However, a material will not satisfy this condition if distinct components of the material are recovered as separate end products (as when metals are recovered from metal-containing secondary materials); or
    - B) Employed in a particular function or application as an effective substitute for a commercial product (for example, spent pickle

liquor used as phosphorus precipitant and sludge conditioner in wastewater treatment).

- 6) "Scrap metal" is bits and pieces of metal parts (e.g., bars, turnings, rods, sheets, wire) or metal pieces that may be combined together with bolts or soldering (e.g., radiators, scrap automobiles, railroad box cars) which when worn or superfluous can be recycled.
- 7) A material is "recycled" if it is used, reused or reclaimed.
- 8) A material is "accumulated speculatively" if it is accumulated before being recycled. A material is not accumulated speculatively, however, if the person accumulating it can show that the material is potentially recyclable and has a feasible means of being recycled; and that \_\_\_\_\_ during the calendar year (commencing on January 1) \_\_\_\_\_ the amount of material that is recycled, or transferred to a different site for recycling, equals at least 75 percent by weight or volume of the amount of that material accumulated at the beginning of the period. In calculating the percentage of turnover, the 75 percent requirement is to be applied to each material of the same type (e.g., slags from a single smelting process) that is recycled in the same way (i.e., from which the same material is recovered or that is used in the same way). Materials accumulating in units that would be exempt from regulation under Section 721.104(c) are not to be included in making the calculation. (Materials that are already defined as solid wastes also are not to be included in making the calculation.) Materials are no longer in this category once they are removed from accumulation for recycling, however.
- 9) "Excluded scrap metal" is processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal.
- 10) "Processed scrap metal" is scrap metal which has been manually or physically altered to either separate it into distinct materials to enhance economic value or to improve the handling of materials. Processed scrap metal includes, but is not limited to, scrap metal that has been baled, shredded, sheared, chopped, crushed, flattened, cut, melted, or separated by metal type (i.e., sorted), and fines, drosses and related materials

that have been agglomerated. (Note: shredded circuit boards being sent for recycling are not considered processed scrap metal. They are covered under the exclusion from the definition of solid waste for shredded circuit boards being recycled (Section 721.104(a)(13)).

11) "Home scrap metal" is scrap metal as generated by steel mills, foundries, and refineries, such as turnings, cuttings, punchings, and borings.

12) "Prompt scrap metal" is scrap metal as generated by the metal working/fabrication industries, and it includes such scrap metal as turnings, cuttings, punchings, and borings. Prompt scrap metal is also known as industrial or new scrap metal.

- d) The Agency has inspection authority pursuant to Section 3007 of ~~Resource Conservation and Recovery Act-RCRA~~ and Section 4 of the Environmental Protection Act.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 721.102 Definition of Solid Waste

a) Solid waste.

1) A solid waste is any discarded material that is not excluded by Section 721.104(a) or that is not excluded pursuant to 35 Ill. Adm. Code 720.130 and 720.131.

2) A discarded material is any material that is:

A) Abandoned, as explained in subsection (b) below; ~~or~~

B) Recycled, as explained in subsection (c) below; ~~or~~

C) Considered inherently waste-like, as explained in subsection (d) below; ~~or~~

D) A military munition identified as a solid waste in 35 Ill. Adm. Code 726.302.

b) Materials are solid waste if they are abandoned by being:

1) Disposed of; or

- 2) Burned or incinerated; or
  - 3) Accumulated, stored or treated (but not recycled) before or in lieu of being abandoned by being disposed of, burned or incinerated.
- c) Materials are solid wastes if they are recycled--or accumulated, stored or treated before recycling--as specified in subsections (c)(1) through (c)(4) below if they are:
- 1) Used in a manner constituting disposal.
    - A) Materials noted with a "yes" in column 1 of table in Section 721.Appendix Z are solid wastes when they are:
      - i) Applied to or placed on the land in a manner that constitutes disposal; or
      - ii) Used to produce products that are applied to or placed on the land or are otherwise contained in products that are applied to or placed on the land (in which cases the product itself remains a solid waste).
    - B) However, commercial chemical products listed in Section 721.133 are not solid wastes if they are applied to the land and that is their ordinary manner of use.
  - 2) Burned for energy recovery.
    - A) Materials noted with a "yes" in column 2 of table in Section 721.Appendix Z are solid wastes when they are:
      - i) ~~bE~~ Burned to recover energy;
      - ii) Used to produce a fuel or are otherwise contained in fuels (in which case the fuel itself remains a solid waste);
      - iii) Contained in fuels (in which case the fuel itself remains a solid waste).
    - B) However, commercial chemical products listed in Section 721.133 are not solid wastes if they are themselves fuels.

- 3) Reclaimed. Materials noted with a "yes" in column 3 of the table in Section 721. Appendix Z are solid wastes when reclaimed.
  - 4) Accumulated speculatively. Materials noted with "yes" in column 4 of table in Section 721. Appendix Z are solid wastes when accumulated speculatively.
- d) Inherently waste-like materials. The following materials are solid wastes when they are recycled in any manner:
- 1) Hazardous waste numbers F020, F021 (unless used as an ingredient to make a product at the site of generation), F022, F023, F026, and F028.
  - 2) Secondary materials fed to a halogen acid furnace that exhibit a characteristic of a hazardous waste or are listed as a hazardous waste as defined in 721. Subparts C or D of this Part, except for brominated material that meets the following criteria:
    - A) The material must contain a bromine concentration of at least 45%;
    - B) The material must contain less than a total of 1% of toxic organic compounds listed in Section 721. Appendix H; and
    - C) The material is processed continually on-site in the halogen acid furnace via direct conveyance (hard piping).
  - 3) The following criteria are used to add wastes to the list:
    - A) Disposal method or toxicity.
      - i) The materials are ordinarily disposed of, burned, or incinerated; or
      - ii) The materials contain toxic constituents listed in Section 721. Appendix H and these constituents are not ordinarily found in raw materials or products for which the materials substitute (or are found in raw materials or products in smaller concentrations) and are not used or reused during the recycling process; and

- B) The material may pose a substantial hazard to human health and the environment when recycled.
- e) Materials that are not solid waste when recycled.
- 1) Materials are not solid wastes when they can be shown to be recycled by being:
    - A) Used or reused as ingredients in an industrial process to make a product, provided the materials are not being reclaimed; or
    - B) Used or reused as effective substitutes for commercial products; or
    - C) Returned to the original process from which they are generated without first being reclaimed. The materials must be returned as a substitute for feedstock materials. In cases where the original process to which the material is returned is a secondary process, the materials must be managed so there is no placement on the land.
  - 2) The following materials are solid wastes, even if the recycling involves use, reuse, or return to the original process (described in subsections (e)(1)(A) through (e)(1)(C) above):
    - A) Materials used in a manner constituting disposal or used to produce products that are applied to the land; or
    - B) Materials burned for energy recovery, used to produce a fuel, or contained in fuels; or
    - C) Materials accumulated speculatively; or
    - D) Materials listed in subsections (d)(1) and (d)(2) above.
- f) Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation. Respondents in actions to enforce regulations implementing Subtitle C of ~~the Resource Conservation Recovery Act-RCRA~~ or Section 21 of the Environmental Protection Act that raise a claim that a certain material is not a solid waste or that the material is conditionally exempt from regulation must demonstrate that there is a known market or disposition for the

material and that they meet the terms of the exclusion or exemption. In doing so, the person must provide appropriate documentation (such as contracts showing that a second person uses the material as an ingredient in a production process) to demonstrate that the material is not a waste or that the material is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials must show that they have the necessary equipment to do so.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 721.104 Exclusions

- a) Materials that are not solid wastes. The following materials are not solid wastes for the purpose of this Part:
  - 1) Sewage:
    - A) Domestic sewage; and
    - B) Any mixture of domestic sewage and other waste that passes through a sewer system to publicly-owned treatment works for treatment.
    - C) "Domestic sewage" means untreated sanitary wastes that pass through a sewer system.
  - 2) Industrial wastewater discharges that are point source discharges with **National Pollutant Discharge Elimination System (NPDES)** permits issued by the Agency pursuant to Section 12(f) of the Environmental Protection Act and 35 Ill. Adm. Code 309.
 

BOARD NOTE: This exclusion applies only to the actual point source discharge. It does not exclude industrial wastewaters while they are being collected, stored, or treated before discharge, nor does it exclude sludges that are generated by industrial wastewater treatment.
  - 3) Irrigation return flows.
  - 4) Source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.).

- 5) Materials subjected to in-situ mining techniques that are not removed from the ground as part of the extraction process.
- 6) Pulping liquors (i.e., black ~~liquor liquors~~) that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process, unless accumulated speculatively, as defined in Section 721.101(c).
- 7) Spent sulfuric acid used to produce virgin sulfuric acid unless it is accumulated speculatively, as defined in Section 721.101(c).
- 8) Secondary materials that are reclaimed and returned to the original process or processes in which they were generated where they are reused in the production process, provided:
  - A) Only tank storage is involved, and the entire process through completion of reclamation is closed by being entirely connected with pipes or other comparable enclosed means of conveyance;
  - B) Reclamation does not involve controlled flame combustion (such as occurs in boilers, industrial furnaces or incinerators);
  - C) The secondary materials are never accumulated in such tanks for over twelve months without being reclaimed; and
  - D) The reclaimed material is not used to produce a fuel or used to produce products that are used in a manner constituting disposal.
- 9) Wood preserving wastes.
  - A) Spent wood preserving solutions that have been used and which are reclaimed and reused for their original intended purpose; and
  - B) Wastewaters from the wood preserving process that have been reclaimed and which are reused to treat wood.
- 10) Hazardous waste numbers K060, K087, K141, K142, K143, K144, K145, K147, and K148, and any wastes from the coke by-products processes that are hazardous only because they exhibit the toxicity characteristic specified in Section 721.124, when

subsequent to generation these materials are recycled to coke ovens, to the tar recovery process as a feedstock to produce coal tar, or are mixed with coal tar prior to the tar's sale or refining. This exclusion is conditioned on there being no land disposal of the waste from the point it is generated to the point it is recycled to coke ovens, to tar recovery, to the tar refining processes, or prior to when it is mixed with coal.

- 11) Nonwastewater splash condenser dross residue from the treatment of hazardous waste number K061 in high temperature metals recovery units, provided it is shipped in drums (if shipped) and not land disposed before recovery.
- 12) Recovered oil from petroleum refining, exploration, and production and from transportation incident thereto that is to be inserted into the petroleum refining process (SIC Code 2911) at or before a point (other than direct insertion into a coker) where contaminants are removed. This exclusion applies to recovered oil stored or transported prior to insertion, except that the oil must not be stored in a manner involving placement on the land and the oil must not be accumulated speculatively before being recycled. Recovered oil is oil that has been reclaimed from secondary materials (such as wastewater) generated from normal petroleum refining, exploration, and production, and from transportation practices. Recovered oil includes oil that is recovered from refinery wastewater collection and treatment systems, oil recovered from oil and gas drilling operations, and oil recovered from wastes removed from crude oil storage tanks. Recovered oil does not include (among other things) oil-bearing hazardous wastes listed in Subpart D of this Part (e.g., K048 through K052, F037, and F038). However, oil recovered from such wastes may be considered recovered oil. Recovered oil also does not include used oil as defined in 35 Ill. Adm. Code 739.100.
- 13) Excluded scrap metal (processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal) being recycled.
- 14) Shredded circuit boards being recycled, provided that they meet the following conditions:

- A) The circuit boards are stored in containers sufficient to prevent a release to the environment prior to recovery; and
- B) The circuit boards are free of mercury switches, mercury relays and nickel-cadmium batteries and lithium batteries.
- b) Solid wastes that are not hazardous wastes. The following solid wastes are not hazardous wastes:
- 1) Household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered (e.g., refuse-derived fuel), or reused. "Household waste" means any waste material (including garbage, trash, and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels, and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas). A resource recovery facility managing municipal solid waste shall not be deemed to be treating, storing, disposing of, or otherwise managing hazardous wastes for the purposes of regulation under this Part, if such facility:
- A) Receives and burns only:
- i) Household waste (from single and multiple dwellings, hotels, motels, and other residential sources); and
- ii) Solid waste from commercial or industrial sources that does not contain hazardous waste, and
- B) Such facility does not accept hazardous waste and the owner or operator of such facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in such facility.

BOARD NOTE: The U.S. Supreme Court determined, in *City of Chicago v. Environmental Defense Fund, Inc.*, —511 U.S. —328, 114 S. Ct. 1588, 128 L. Ed. 2d 302 (1994), that this exclusion and RCRA section 3001(i) (42 U.S.C. § 6921(i)) do not exclude the ash from facilities covered by this

subsection from regulation as a hazardous waste. At 59 Fed. Reg. 29372 (June 7, 1994), USEPA granted facilities managing ash from such facilities that is determined a hazardous waste under Subpart C of this Part until December 7, 1994 to file a Part A permit application pursuant to 35 Ill. Adm. Code 703.181. At 60 Fed. Reg. 6666 (Feb. 3, 1995), USEPA stated that it interpreted that the point at which ash becomes subject to RCRA Subtitle C regulation is when that material leaves the combustion building (including connected air pollution control equipment).

- 2) Solid wastes generated by any of the following that are returned to the soil as fertilizers:
  - A) The growing and harvesting of agricultural crops, or
  - B) The raising of animals, including animal manures.
- 3) Mining overburden returned to the mine site.
- 4) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels, except as provided in 35 Ill. Adm. Code 726.212 for facilities that burn or process hazardous waste.
- 5) Drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas, or geothermal energy.
- 6) Chromium wastes:
  - A) Wastes that fail the test for the toxicity characteristic (Sections 721.124 and 721.Appendix B) because chromium is present or which are listed in Subpart D of this Part due to the presence of chromium, that do not fail the test for the toxicity characteristic for any other constituent or which are not listed due to the presence of any other constituent, and that do not fail the test for any other characteristic, if it is shown by a waste generator or by waste generators that:

- i) The chromium in the waste is exclusively (or nearly exclusively) trivalent chromium;
  - ii) The waste is generated from an industrial process that uses trivalent chromium exclusively (or nearly exclusively) and the process does not generate hexavalent chromium; and
  - iii) The waste is typically and frequently managed in non-oxidizing environments.
- B) Specific wastes that meet the standard in subsection (b)(6)(A) of this Section (so long as they do not fail the test for the toxicity characteristic for any other constituent and do not exhibit any other characteristic) are:
- i) Chrome (blue) trimmings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish, hair save/chrome tan/retan/wet finish, retan/wet finish, no beamhouse, through-the-blue, and shearling;
  - ii) Chrome (blue) shavings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish, hair save/chrome tan/retan/wet finish, retan/wet finish, no beamhouse, through-the-blue, and shearling;
  - iii) Buffing dust generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish, hair save/chrome tan/retan/wet finish, retan/wet finish, no beamhouse, through-the-blue;
  - iv) Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish, hair save/chrome tan/retan/wet finish, retan/wet finish, no beamhouse, through-the-blue, and shearling;

- v) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish, hair save/chrome tan/retan/wet finish, retan/wet finish, no beamhouse, through-the-blue, and shearling;
  - vi) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish, hair save/chrome tan/retan/wet finish, and through-the-blue;
  - vii) Waste scrap leather from the leather tanning industry, the shoe manufacturing industry, and other leather product manufacturing industries; and
  - viii) Wastewater treatment sludges from the production of titanium dioxide pigment using chromium-bearing ores by the chloride process.
- 7) Solid waste from the extraction, beneficiation, and processing of ores and minerals (including coal, phosphate rock, and overburden from the mining of uranium ore), except as provided by 35 Ill. Adm. Code 726.212 for facilities that burn or process hazardous waste. For purposes of this subsection, beneficiation of ores and minerals is restricted to the following activities: crushing, grinding, washing, dissolution, crystallization, filtration, sorting, sizing, drying, sintering, pelletizing, briquetting, calcining to remove water or carbon dioxide, roasting, autoclaving or chlorination in preparation for leaching (except where the roasting or autoclaving or chlorination and leaching sequence produces a final or intermediate product that does not undergo further beneficiation or processing), gravity concentration, magnetic separation, electrostatic separation, floatation, ion exchange, solvent extraction, electrowinning, precipitation, amalgamation, and heap, dump, vat tank, and in situ leaching. For the purposes of this subsection, solid waste from the processing of ores and minerals includes only the following wastes:
- A) Slag from primary copper processing,

- B) Slag from primary lead processing,
- C) Red and brown muds from bauxite refining,
- D) Phosphogypsum from phosphoric acid production,
- E) Slag from elemental phosphorus production,
- F) Gasifier ash from coal gasification,
- G) Process wastewater from coal gasification,
- H) Calcium sulfate wastewater treatment plant sludge from primary copper processing,
- I) Slag tailings from primary copper processing,
- J) Fluorogypsum from hydrofluoric acid production,
- K) Process wastewater from hydrofluoric acid production,
- L) Air pollution control dust or sludge from iron blast furnaces,
- M) Iron blast furnace slag,
- N) Treated residue from roasting and leaching of chrome ore,
- O) Process wastewater from primary magnesium processing by the anhydrous process,
- P) Process wastewater from phosphoric acid production,
- Q) Basic oxygen furnace and open hearth furnace air pollution control dust or sludge from carbon steel production,
- R) Basic oxygen furnace and open hearth furnace slag from carbon steel production,
- S) Chloride processing waste solids from titanium tetrachloride production, and
- T) Slag from primary zinc smelting.

- 8) Cement kiln dust waste, except as provided by 35 Ill. Adm. Code 726.212 for facilities that burn or process hazardous waste.
- 9) Solid waste that consists of discarded arsenical-treated wood or wood products that fails the test for the toxicity characteristic for hazardous waste codes D004 through D017 and which is not a hazardous waste for any other reason if the waste is generated by persons that utilize the arsenical-treated wood and wood products for these materials' intended end use.
- 10) Petroleum-contaminated media and debris that fail the test for the toxicity characteristic of Section 721.124 (hazardous waste codes D018 through D043 only) and which are subject to corrective action regulations under 35 Ill. Adm. Code 731.
- 11) This subsection corresponds with 40 CFR 261.4(b)-(11), which expired by its own terms on January 25, 1993. This statement maintains structural parity with USEPA regulations.
- 12) Used chlorofluorocarbon refrigerants from totally enclosed heat transfer equipment, including mobile air conditioning systems, mobile refrigeration, and commercial and industrial air conditioning and refrigeration systems, that use~~s~~ chlorofluorocarbons as the heat transfer fluid in a refrigeration cycle, provided the refrigerant is reclaimed for further use.
- 13) Non-terne plated used oil filters that are not mixed with wastes listed in Subpart D of this Part, if these oil filters have been gravity hot-drained using one of the following methods:
  - A) Puncturing the filter anti-drain back valve or the filter dome end and hot-draining;
  - B) Hot-draining and crushing;
  - C) Dismantling and hot-draining; or
  - D) Any other equivalent hot-draining method that will remove used oil.
- 14) Used oil re-refining distillation bottoms that are used as feedstock to manufacture asphalt products.

- c) Hazardous wastes that are exempted from certain regulations. A hazardous waste that is generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or in a manufacturing process unit, or an associated non-waste-treatment manufacturing unit, is not subject to regulation under 35 Ill. Adm. Code 702, 703, 705, and 722 through 725, and 728 or to the notification requirements of Section 3010 of RCRA until it exits the unit in which it was generated, unless the unit is a surface impoundment, or unless the hazardous waste remains in the unit more than 90 days after the unit ceases to be operated for manufacturing or for storage or transportation of product or raw materials.
- d) Samples
- 1) Except as provided in subsection (d)(2) of this Section, a sample of solid waste or a sample of water, soil, or air that is collected for the sole purpose of testing to determine its characteristics or composition is not subject to any requirements of this Part or 35 Ill. Adm. Code 702, 703, 705, and 722 through 728. The sample qualifies when:
    - A) The sample is being transported to a laboratory for the purpose of testing;
    - B) The sample is being transported back to the sample collector after testing;
    - C) The sample is being stored by the sample collector before transport to a laboratory for testing;
    - D) The sample is being stored in a laboratory before testing;
    - E) The sample is being stored in a laboratory for testing but before it is returned to the sample collector; or
    - F) The sample is being stored temporarily in the laboratory after testing for a specific purpose (for example, until conclusion of a court case or enforcement action where further testing of the sample may be necessary).

- 2) In order to qualify for the exemption in subsection (d)(1)(A) or (d)(1)(B) of this Section, a sample collector shipping samples to a laboratory and a laboratory returning samples to a sample collector shall:
    - A) Comply with U.S. Department of Transportation (DOT), U.S. Postal Service (USPS), or any other applicable shipping requirements; or
    - B) Comply with the following requirements if the sample collector determines that DOT, USPS, or other shipping requirements do not apply to the shipment of the sample:
      - i) Assure that the following information accompanies the sample: The sample collector's name, mailing address, and telephone number; the laboratory's name, mailing address, and telephone number; the quantity of the sample; the date of the shipment; and a description of the sample.
      - ii) Package the sample so that it does not leak, spill, or vaporize from its packaging.
  - 3) This exemption does not apply if the laboratory determines that the waste is hazardous but the laboratory is no longer meeting any of the conditions stated in subsection (d)(1) of this Section.
- e) Treatability study samples.
- 1) Except as is provided in subsection (e)(2) of this Section, a person that generates or collects samples for the purpose of conducting treatability studies, as defined in 35 Ill. Adm. Code 720.110, are not subject to any requirement of 35 Ill. Adm. Code 721 through 723 or to the notification requirements of Section 3010 of the Resource Conservation and Recovery Act. Nor are such samples included in the quantity determinations of Section 721.105 and 35 Ill. Adm. Code 722.134(d) when:
    - A) The sample is being collected and prepared for transportation by the generator or sample collector;

- B) The sample is being accumulated or stored by the generator or sample collector prior to transportation to a laboratory or testing facility; or
  - C) The sample is being transported to the laboratory or testing facility for the purpose of conducting a treatability study.
- 2) The exemption in subsection (e)(1) of this Section is applicable to samples of hazardous waste being collected and shipped for the purpose of conducting treatability studies provided that:
- A) The generator or sample collector uses (in "treatability studies") no more than 10,000 kg of media contaminated with non-acute hazardous waste, 1000 kg of non-acute hazardous waste other than contaminated media, 1 kg of acute hazardous waste, or 2500 kg of media contaminated with acute hazardous waste for each process being evaluated for each generated wastestream;
  - B) The mass of each shipment does not exceed 10,000 kg; the 10,000 kg quantity may be all media contaminated with non-acute hazardous waste, or may include 2500 kg of media contaminated with acute hazardous waste, 1000 kg of hazardous waste, and 1 kg of acute hazardous waste;
  - C) The sample must be packaged so that it does not leak, spill, or vaporize from its packaging during shipment and the requirements of subsections (e)(2)(C)(i) or (e)(2)(C)(ii) of this Section are met.
    - i) The transportation of each sample shipment complies with U.S. Department of Transportation (DOT), U.S. Postal Service (USPS), or any other applicable shipping requirements; or
    - ii) If the DOT, USPS, or other shipping requirements do not apply to the shipment of the sample, the following information must accompany the sample: The name, mailing address, and telephone number of the originator of the sample; the name, address, and telephone number of the facility that will perform the

treatability study; the quantity of the sample; the date of the shipment; and, a description of the sample, including its USEPA hazardous waste number;

- D) The sample is shipped to a laboratory or testing facility that is exempt under subsection (f) of this Section, or has an appropriate RCRA permit or interim status;
  - E) The generator or sample collector maintains the following records for a period ending three years after completion of the treatability study:
    - i) Copies of the shipping documents;
    - ii) A copy of the contract with the facility conducting the treatability study;
    - iii) Documentation showing: The amount of waste shipped under this exemption; the name, address, and USEPA identification number of the laboratory or testing facility that received the waste; the date the shipment was made; and whether or not unused samples and residues were returned to the generator; and
  - F) The generator reports the information required in subsection (e)(2)(E)(iii) of this Section in its report under 35 Ill. Adm. Code 722.141.
- 3) The Agency may grant requests on a case-by-case basis for up to an additional two years for treatability studies involving bioremediation. The Agency may grant requests, on a case-by-case basis, for quantity limits in excess of those specified in subsections (e)(2)(A), (e)(2)(B), and (f)(4) of this Section, for up to an additional 5000 kg of media contaminated with non-acute hazardous waste, 500 kg of non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste, and 1 kg of acute hazardous waste:
- A) In response to requests for authorization to ship, store, and conduct further treatability studies on additional quantities in advance of commencing treatability studies. Factors to be considered in reviewing such requests

include the nature of the technology, the type of process (e.g., batch versus continuous), the size of the unit undergoing testing (particularly in relation to scale-up considerations), the time or quantity of material required to reach steady-state operating conditions, or test design considerations, such as mass balance calculations.

- B) In response to requests for authorization to ship, store, and conduct treatability studies on additional quantities after initiation or completion of initial treatability studies when: There has been an equipment or mechanical failure during the conduct of the treatability study, there is need to verify the results of a previously-conducted treatability study, there is a need to study and analyze alternative techniques within a previously-evaluated treatment process, or there is a need to do further evaluation of an ongoing treatability study to determine final specifications for treatment.
- C) The additional quantities allowed and timeframes allowed in subsections (e)(3)(A) and (e)(3)(B) of this Section are subject to all the provisions in subsections (e)(1) and (e)(2)(B) through (e)(2)(F) of this Section. The generator or sample collector shall apply to the Agency and provide in writing the following information:
- i) The reason why the generator or sample collector requires additional time or quantity of sample for the treatability study evaluation and the additional time or quantity needed;
  - ii) Documentation accounting for all samples of hazardous waste from the wastestream that have been sent for or undergone treatability studies, including the date each previous sample from the waste stream was shipped, the quantity of each previous shipment, the laboratory or testing facility to which it was shipped, what treatability study processes were conducted on each sample shipped, and the available results of each treatability study;

- iii) A description of the technical modifications or change in specifications that will be evaluated and the expected results;
  - iv) If such further study is being required due to equipment or mechanical failure, the applicant shall include information regarding the reason for the failure or breakdown and also include what procedures or equipment improvements have been made to protect against further breakdowns; and
  - v) Such other information as the Agency determines is necessary.
- 4) Final Agency determinations pursuant to this subsection may be appealed to the Board.
- f) Samples undergoing treatability studies at laboratories or testing facilities. Samples undergoing treatability studies and the laboratory or testing facility conducting such treatability studies (to the extent such facilities are not otherwise subject to RCRA requirements) are not subject to any requirement of this Part, or of 35 Ill. Adm. Code 702, 703, 705, 722 through 726, and 728 or to the notification requirements of Section 3010 of the Resource Conservation and Recovery Act, provided that the requirements of subsections (f)(1) through (f)(11) of this Section are met. A mobile treatment unit may qualify as a testing facility subject to subsections (f)(1) through (f)(11) of this Section. Where a group of mobile treatment units are located at the same site, the limitations specified in subsections (f)(1) through (f)(11) of this Section apply to the entire group of mobile treatment units collectively as if the group were one mobile treatment unit.
- 1) No less than 45 days before conducting treatability studies, the facility notifies the Agency in writing that it intends to conduct treatability studies under this subsection (f).
  - 2) The laboratory or testing facility conducting the treatability study has a USEPA identification number.
  - 3) No more than a total of 10,000 kg of "as received" media contaminated with non-acute hazardous waste,

2500 kg of media contaminated with acute hazardous waste, or 250 kg of other "as received" hazardous waste is subject to initiation of treatment in all treatability studies in any single day. "As received" waste refers to the waste as received in the shipment from the generator or sample collector.

- 4) The quantity of "as received" hazardous waste stored at the facility for the purpose of evaluation in treatability studies does not exceed 10,000 kg, the total of which can include 10,000 kg of media contaminated with non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste, 1000 kg of non-acute hazardous wastes other than contaminated media, and 1 kg of acute hazardous waste. This quantity limitation does not include treatment materials (including nonhazardous solid waste) added to "as received" hazardous waste.
- 5) No more than 90 days have elapsed since the treatability study for the sample was completed, or no more than one year (two years for treatability studies involving bioremediation) has elapsed since the generator or sample collector shipped the sample to the laboratory or testing facility, whichever date first occurs. Up to 500 kg of treated material from a particular waste stream from treatability studies may be archived for future evaluation up to five years from the date of initial receipt. Quantities of materials archived are counted against the total storage limit for the facility.
- 6) The treatability study does not involve the placement of hazardous waste on the land or open burning of hazardous waste.
- 7) The facility maintains records for three years following completion of each study that show compliance with the treatment rate limits and the storage time and quantity limits. The following specific information must be included for each treatability study conducted:
  - A) The name, address, and USEPA identification number of the generator or sample collector of each waste sample;
  - B) The date the shipment was received;

- C) The quantity of waste accepted;
  - D) The quantity of "as received" waste in storage each day;
  - E) The date the treatment study was initiated and the amount of "as received" waste introduced to treatment each day;
  - F) The date the treatability study was concluded;
  - G) The date any unused sample or residues generated from the treatability study were returned to the generator or sample collector or, if sent to a designated facility, the name of the facility and the USEPA identification number.
- 8) The facility keeps, on-site, a copy of the treatability study contract and all shipping papers associated with the transport of treatability study samples to and from the facility for a period ending three years from the completion date of each treatability study.
- 9) The facility prepares and submits a report to the Agency by March 15 of each year that estimates the number of studies and the amount of waste expected to be used in treatability studies during the current year, and includes the following information for the previous calendar year:
- A) The name, address, and USEPA identification number of the facility conducting the treatability studies;
  - B) The types (by process) of treatability studies conducted;
  - C) The names and addresses of persons for whom studies have been conducted (including their USEPA identification numbers);
  - D) The total quantity of waste in storage each day;
  - E) The quantity and types of waste subjected to treatability studies;
  - F) When each treatability study was conducted; and

- G) The final disposition of residues and unused sample from each treatability study.
- 10) The facility determines whether any unused sample or residues generated by the treatability study are hazardous waste under Section 721.103 and, if so, are subject to 35 Ill. Adm. Code 702, 703, and 721 through 728, unless the residues and unused samples are returned to the sample originator under the exemption of subsection (e) of this Section.
- 11) The facility notifies the Agency by letter when the facility is no longer planning to conduct any treatability studies at the site.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 721.105 Special Requirements for Hazardous Waste  
Generated by Small Quantity Generators

- a) A generator is a conditionally exempt small quantity generator in a calendar month if it generates no more than 100 kilograms of hazardous waste in that month. 35 Ill. Adm. Code 700 explains the relation of this to the 100 kg/mo exception of 35 Ill. Adm. Code 809.
- b) Except for those wastes identified in subsections (e), (f), (g) and (j) of this Section, a conditionally exempt small quantity generator's hazardous wastes are not subject to regulation under 35 Ill. Adm. Code 702, 703, 705 and 722 through 726 and 728, and the notification requirements of Section 3010 of Resource Conservation and Recovery Act, provided the generator complies with the requirements of subsections (f), (g) and (j) of this Section.
- c) When making the quantity determinations of this Part and 35 Ill. Adm. Code 722, the generator must include all hazardous waste that it generates, except the following hazardous waste:
- 1) Hazardous waste that is exempt from regulation under Section 721.104(c) through (f), 721.106(a)-(3), 721.107(a)(1), or 721.108;
  - 2) Hazardous waste that is managed immediately upon generation only in on-site elementary neutralization units, wastewater treatment units,

or totally enclosed treatment facilities, as defined in 35 Ill. Adm. Code 720.110;

- 3) Hazardous waste that is recycled, without prior storage or accumulation, only in an on-site process subject to regulation under Section 721.106(c)(2);
  - 4) Hazardous waste that is used oil managed under the requirements of Section 721.106(a)(4) and 35 Ill. Adm. Code 739;
  - 5) Hazardous waste that is spent lead-acid batteries managed under the requirements of 35 Ill. Adm. Code 726.Subpart G; and
  - 6) Hazardous waste that is universal waste managed under Section 721.109 and 35 Ill. Adm. Code 733.
- d) In determining the quantity of hazardous waste it generates, a generator need not include:
- 1) Hazardous waste when it is removed from on-site storage; or
  - 2) Hazardous waste produced by on-site treatment (including reclamation) of its hazardous waste so long as the hazardous waste that is treated was counted once; or
  - 3) Spent materials that are generated, reclaimed and subsequently reused on-site, so long as such spent materials have been counted once.
- e) If a generator generates acute hazardous waste in a calendar month in quantities greater than set forth below, all quantities of that acute hazardous waste are subject to full regulation under 35 Ill. Adm. Code 702, 703, 705 and 722 through 726 and 728, and the notification requirements of Section 3010 of the Resource Conservation and Recovery Act:
- 1) A total of one kilogram of one or more of the acute hazardous wastes listed in Section 721.131, 721.132, or 721.133(e); or
  - 2) A total of 100 kilograms of any residue or contaminated soil, waste or other debris resulting from the clean-up of a spill, into or on any land or water, of any one or more of the acute hazardous wastes listed in Section 721.131, 721.132, or 721.133(e).

BOARD NOTE: "Full regulation" means those regulations applicable to generators of greater than 1000 kg of non-acute hazardous waste in a calendar month.

- f) In order for acute hazardous wastes generated by a generator of acute hazardous wastes in quantities equal to or less than those set forth in subsection (e)(1) or (e)(2) of this Section to be excluded from full regulation under this Section, the generator must comply with the following requirements:
- 1) 35 Ill. Adm. Code 722.111.
  - 2) The generator may accumulate acute hazardous waste on-site. If the generator accumulates at any time acute hazardous wastes in quantities greater than set forth in subsection (e)(1) or (e)(2) of this Section, all of those accumulated wastes are subject to regulation under 35 Ill. Adm. Code 702, 703, 705 and 722 through 726 and 728, and the applicable notification requirements of Section 3010 of the Resource Conservation and Recovery Act. The time period of 35 Ill. Adm. Code 722.134(a), for accumulation of wastes on-site, begins when the accumulated wastes exceed the applicable exclusion limit.
  - 3) A conditionally exempt small quantity generator may either treat or dispose of its acute hazardous waste in an on-site facility or ensure delivery to an off-site treatment, storage, or disposal facility, any of which, if located in the United States, meets any of the following conditions:
    - A) The facility is permitted under 35 Ill. Adm. Code 702 and 703;
    - B) The facility has interim status under 35 Ill. Adm. Code 702, 703 and 725;
    - C) The facility is authorized to manage hazardous waste by a state with a hazardous waste management program approved by USEPA pursuant to 40 CFR 271;
    - D) The facility is permitted, licensed, or registered by a state to manage municipal ~~or industrial~~ solid waste and, if managed in a municipal solid waste landfill facility, the

landfill is subject to 35 Ill. Adm. Code 810 through 814 or 40 CFR 258;

- E) The facility is permitted, licensed, or registered by a state to manage non-municipal non-hazardous waste and, if managed in a non-municipal non-hazardous waste disposal unit, the unit is subject to the requirements of 40 CFR 257.5 through 257.30;

BOARD NOTE: The Illinois non-hazardous waste landfill regulations, 35 Ill. Adm. Code 810 through 814, do not allow the disposal of hazardous waste in a landfill regulated under those rules. The Board intends that subsections (f)(3)(D) and (f)(3)(E) of this Section impose a federal requirement on the hazardous waste generator. The Board specifically does not intend that these subsections authorize any disposal of conditionally-exempt small quantity generator waste in a landfill not specifically permitted to accept the particular hazardous waste.

- EF) The facility is ~~a facility one~~ that:
- i) Beneficially uses or reuses or legitimately recycles or reclaims its waste; or
  - ii) Treats its waste prior to beneficial use or reuse, or legitimate recycling or reclamation; or
- FG) For universal waste managed under 35 Ill. Adm. Code 733 or 40 CFR 273, the facility is a universal waste handler or destination facility subject to the requirements of 35 Ill. Adm. Code 733 or 40 CFR 273.

- g) In order for hazardous waste generated by a conditionally exempt small quantity generator in quantities of less than 100 kilograms of hazardous waste during a calendar month to be excluded from full regulation under this Section, the generator must comply with the following requirements:

- 1) 35 Ill. Adm. Code 722.111;
- 2) The conditionally exempt small quantity generator may accumulate hazardous waste on-site. If it accumulates at any time more than a total of 1000 kilograms of the generator's hazardous waste, all of those accumulated wastes are subject to regulation under the special provisions of 35 Ill. Adm. Code 722 applicable to generators of between 100 kg and 1000 kg of hazardous waste in a calendar month as well as the requirements of 35 Ill. Adm. Code 702, 703, 705 and 723 through 726 and 728, and the applicable notification requirements of Section 3010 of the Resource Conservation and Recovery Act. The time period of 35 Ill. Adm. Code 722.134(d) for accumulation of wastes on-site begins for a small quantity generator when the accumulated wastes exceed 1000 kilograms;
- 3) A conditionally exempt small quantity generator may either treat or dispose of its hazardous waste in an on-site facility or ensure delivery to an off-site treatment, storage, or disposal facility, any of which, if located in the United States, meets any of the following conditions:
  - A) The facility is permitted under 35 Ill. Adm. Code 702 and 703;
  - B) The facility has interim status under 35 Ill. Adm. Code 702, 703 and 725;
  - C) The facility is authorized to manage hazardous waste by a state with a hazardous waste management program approved by USEPA under 40 CFR 271 (1986);
  - D) The facility is permitted, licensed, or registered by a state to manage municipal ~~or industrial~~ solid waste and, if managed in a municipal solid waste landfill facility, the landfill is subject to 35 Ill. Adm. Code 810 through 814 or 40 CFR 258;
  - E) The facility is permitted, licensed, or registered by a state to manage non-municipal non-hazardous waste and, if managed in a non-municipal non-hazardous waste disposal unit.

the unit is subject to the requirements of 40 CFR 257.5 through 257.30;

BOARD NOTE: The Illinois non-hazardous waste landfill regulations, 35 Ill. Adm. Code 810 through 814, do not allow the disposal of hazardous waste in a landfill regulated under those rules. The Board intends that subsections (g)(3)(D) and (f)(3)(E) of this Section impose a federal requirement on the hazardous waste generator. The Board specifically does not intend that these subsections authorize any disposal of conditionally-exempt small quantity generator waste in a landfill not specifically permitted to accept the particular hazardous waste.

- EF) The facility is ~~a facility one~~ that:
  - i) Beneficially uses or re-uses, or legitimately recycles or reclaims the small quantity generator's waste; or
  - ii) Treats its waste prior to beneficial use or re-use, or legitimate recycling or reclamation; or
- FG) For universal waste managed under 35 Ill. Adm. Code 733 or 40 CFR 273, the facility is a universal waste handler or destination facility subject to the requirements of 35 Ill. Adm. Code 733 or 40 CFR 273.
- h) Hazardous waste subject to the reduced requirements of this Section may be mixed with non-hazardous waste and remain subject to these reduced requirements even though the resultant mixture exceeds the quantity limitations identified in this Section, unless the mixture meets any of the characteristics of hazardous wastes identified in Subpart C.
- i) If a small quantity generator mixes a solid waste with a hazardous waste that exceeds a quantity exclusion level of this Section, the mixture is subject to full regulation.

- j) If a conditionally exempt small quantity generator's hazardous wastes are mixed with used oil, the mixture is subject to 35 Ill. Adm. Code 739, if it is destined to be burned for energy recovery. Any material produced from such a mixture by processing, blending, or other treatment is also so regulated if it is destined to be burned for energy recovery.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 721.106 Requirements for Recyclable Materials

a) Recyclable materials:

- 1) Hazardous wastes that are recycled are subject to the requirements for generators, transporters, and storage facilities of subsections (b) and (c) of this Section, except for the materials listed in subsections (a)(2) and (a)(3) of this Section. Hazardous wastes that are recycled will be known as "recyclable materials".
- 2) The following recyclable materials are not subject to the requirements of this Section but are regulated under 35 Ill. Adm. Code 726.Subparts C through H and all applicable provisions in 35 Ill. Adm. Code 702, 703, and 705.
  - A) Recyclable materials used in a manner constituting disposal (35 Ill. Adm. Code 726.Subpart C);
  - B) Hazardous wastes burned for energy recovery in boilers and industrial furnaces that are not regulated under 35 Ill. Adm. Code 724.Subpart O or 725.Subpart O (35 Ill. Adm. Code 726.Subpart H);
  - C) Recyclable materials from which precious metals are reclaimed (35 Ill. Adm. Code 726.Subpart F);
  - D) Spent lead-acid batteries that are being reclaimed (35 Ill. Adm. Code 726.Subpart G).
- 3) The following recyclable materials are not subject to regulation under 35 Ill. Adm. Code 722 through 726, 728, or 702, 703, or 705 and are not subject to the notification requirements of Section 3010 of the Resource Conservation and Recovery Act:

- A) Industrial ethyl alcohol that is reclaimed except that, unless provided otherwise in an international agreement as specified in 35 Ill. Adm. Code 722.158:
- i) A person initiating a shipment for reclamation in a foreign country and any intermediary arranging for the shipment shall comply with the requirements applicable to a primary exporter in 35 Ill. Adm. Code 722.153; 722.156(a)(1) through (a)(4), (a)(6), and (b); and 722.157; shall export such materials only upon consent of the receiving country and in conformance with the USEPA Acknowledgment of Consent, as defined in 35 Ill. Adm. Code 722.Subpart E; and shall provide a copy of the USEPA Acknowledgment of Consent to the shipment to the transporter transporting the shipment for export;
  - ii) Transporters transporting a shipment for export shall not accept a shipment if the transporter knows that the shipment does not conform to the USEPA Acknowledgement of Consent, shall ensure that a copy of the USEPA Acknowledgement of Consent accompanies the shipment, and shall ensure that it is delivered to the facility designated by the person initiating the shipment;
- B) Scrap metal that is not excluded under Section 721.104(a)(13);
- C) Fuels produced from the refining of oil-bearing hazardous wastes along with normal process streams at a petroleum refining facility if such wastes result from normal petroleum refining, production, and transportation practices (this exemption does not apply to fuels produced from oil recovered from oil-bearing hazardous waste where such recovered oil is already excluded under Section 721.104(a)(12));
- D) Petroleum refining wastes.
- i) Hazardous waste fuel produced from oil-bearing hazardous wastes from petroleum refining, production, or transportation

practices or produced from oil reclaimed from such hazardous wastes, where such hazardous wastes are reintroduced into a process that does not use distillation or does not produce products from crude oil, so long as the resulting fuel meets the used oil specification under 35 Ill. Adm. Code 726.140(e) and so long as no other hazardous wastes are used to produce the hazardous waste fuel;

- ii) Hazardous waste fuel produced from oil-bearing hazardous waste from petroleum refining production, and transportation practices, where such hazardous wastes are reintroduced into a refining process after a point at which contaminants are removed, so long as the fuel meets the used oil fuel specification under 35 Ill. Adm. Code 726.140(e); and
  - iii) Oil reclaimed from oil-bearing hazardous wastes from petroleum refining, production, and transportation practices, which reclaimed oil is burned as a fuel without reintroduction to a refining process, so long as the reclaimed oil meets the used oil fuel specification under 35 Ill. Adm. Code 726.140(e); and
- E) Petroleum coke produced from petroleum refinery hazardous wastes containing oil by the same person that generated the wastes unless the resulting coke product exceeds one or more of the characteristics of hazardous waste in 721.Subpart C.
- 4) Used oil that is recycled and is also a hazardous waste solely because it exhibits a hazardous characteristic is not subject to the requirements of 35 Ill. Adm. Code 720 through 728, but it is regulated under 35 Ill. Adm. Code 739. Used oil that is recycled includes any used oil that is reused for any purpose following its original use (including the purpose for which the oil was originally used). Such term includes, but is not limited to, oil that is re-refined, reclaimed, burned for energy recovery, or reprocessed.
  - 5) Hazardous waste that is exported to or imported from designated member countries of the

Organization for Economic Cooperation and Development (OECD), as defined in Section 722.158(a)(1), for the purpose of recovery is subject to the requirements of 35 Ill. Adm. Code 722.Subpart H if it is subject to either the hazardous waste manifesting requirements of 35 Ill. Adm. Code 722 or the universal waste management standards of 35 Ill. Adm. Code 733.

- b) Generators and transporters of recyclable materials are subject to the applicable requirements of 35 Ill. Adm. Code 722 and 723 and the notification requirements under Section 3010 of the Resource Conservation and Recovery Act, except as provided in subsection (a) of this Section.
- c) Storage and recycling:
  - 1) Owners or operators of facilities that store recyclable materials before they are recycled are regulated under all applicable provisions of 35 Ill. Adm. Code 702, 703, and 705; 724.Subparts A through L, AA, BB, and CC; and 725.Subparts A through L, AA, BB, and CC; 726; 728; and the notification requirement under Section 3010 of the Resource Conservation and Recovery Act, except as provided in subsection (a) of this Section. (The recycling process itself is exempt from regulation, except as provided in subsection (d) of this Section.)
  - 2) Owners or operators of facilities that recycle recyclable materials without storing them before they are recycled are subject to the following requirements, except as provided in subsection (a) of this Section:
    - A) Notification requirements under Section 3010 of the Resource Conservation and Recovery Act,
    - B) 35 Ill. Adm. Code 725.171 and 725.172 (dealing with the use of the manifest and manifest discrepancies), and
    - C) subsection (d) of this Section.
- d) Owners or operators of facilities required to have a RCRA permit pursuant to 35 Ill. Adm. Code 703 with hazardous waste management units that recycle hazardous wastes are subject to 35 Ill. Adm. Code 724.Subparts AA and BB and 725.Subparts AA and BB.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective  
\_\_\_\_\_)

Section 721.121 Characteristic of Ignitability

- a) A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:
- 1) It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume, and has a flash point less than 60°C (140°F), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM D-93, incorporated by reference in 35 Ill. Adm. Code 720.111, or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard ~~D-3228~~ **D-3828**, incorporated by reference in 35 Ill. Adm. Code 720.111, or as determined by an equivalent test method approved by the Board (35 Ill. Adm. Code 720.120).
  - 2) It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.
  - 3) It is an ignitable compressed gas as defined in 49 CFR 173.300, incorporated by reference in 35 Ill. Adm. Code 720.111, and as determined by the test methods described in that regulation or equivalent test methods approved by the Board (35 Ill. Adm. Code 720.120).
  - 4) It is an oxidizer as defined in 49 CFR 173.151, incorporated by reference in 35 Ill. Adm. Code 720.111.
- b) A solid waste that exhibits the characteristic of ignitability has the EPA Hazardous Waste Number of D001.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective  
\_\_\_\_\_)

## SUBPART D: LISTS OF HAZARDOUS WASTE

## Section 721.132 Hazardous Waste from Specific Sources

The following solid wastes are listed hazardous wastes from specific sources unless they are excluded under 35 Ill. Adm. Code 720.120 and 720.122 and listed in Section 721.Appendix I.

EPA Hazardous Waste No.	Industry and Hazardous Waste	Hazard Code
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## Wood Preservation:

K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote or pentachlorophenol.	(T)
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## Inorganic Pigments:

K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.	(T)
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K003	Wastewater treatment sludge from the production of molybdate orange pigments.	(T)
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K004	Wastewater treatment sludge from the production of zinc yellow pigments.	(T)
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K005	Wastewater treatment sludge from the production of chrome green pigments.	(T)
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K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).	(T)
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K007	Wastewater treatment sludge from the production of iron blue pigments.	(T)
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K008	Oven residue from the production of chrome oxide green pigments.	(T)
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## Organic Chemicals:

K009	Distillation bottoms from the production of acetaldehyde from ethylene.	(T)
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K010	Distillation side cuts from the production of acetaldehyde from ethylene.	(T)
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K011	Bottom stream from the wastewater stripper	(R,T)
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	in the production of acrylonitrile.	
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile.	(T)
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile.	(T)
K015	Still bottoms from the distillation of benzyl chloride.	(T)
K016	Heavy ends or distillation residues from the production of carbon tetrachloride.	(T)
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.	(T)
K018	Heavy ends from the fractionation column in ethyl chloride production.	(T)
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.	(T)
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.	(T)
K021	Aqueous spent antimony catalyst waste from fluoromethanes production.	(T)
K022	Distillation bottom tars from the production of phenol/acetone from cumene.	(T)
K023	Distillation light ends from the production of phthalic anhydride from naphthalene.	(T)
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene.	(T)
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene.	(T)
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene.	(T)
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene.	(T)
K026	Stripping still tails from the production of methyl ethyl pyridines.	(T)

K027	Centrifuge and distillation residues from toluene diisocyanate production.	(R,T)
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.	(T)
K029	Waste from the product stream stripper in the production of 1,1,1-trichloroethane.	(T)
K095	Distillation bottoms from the production of 1,1,1-trichloroethane.	(T)
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.	(T)
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene.	(T)
K083	Distillation bottoms from aniline production.	(T)
K103	Process residues from aniline extraction from the production of aniline.	(T)
K104	Combined wastewater streams generated from nitrobenzene/aniline production.	(T)
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes.	(T)
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.	(T)
K107	Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(C,T)
K108	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(I,T)
K109	Spent filter cartridges from the product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(T)
K110	Condensed column overheads from intermediate	(T)

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

K111	Product wastewaters from the production of dinitrotoluene via nitration of toluene.	(C,T)
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.	(T)
K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.	(T)
K118	Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	(T)
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	(T)
K156	Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)	(T)

- K157 Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.) (T)
- K158 Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.) (T)
- K159 Organics from the treatment of thiocarbamate wastes. (T)
- K161 Purification solids (including filtration, evaporation, and centrifugation solids), bag house dust and floor sweepings from the production of dithiocarbamate acids and their salts. (This listing does not include K125 or K126.) (R,T)

Inorganic Chemicals:

- K071 Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used. (T)
- K073 Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production. (T)
- K106 Wastewater treatment sludge from the mercury cell process in chlorine production. (T)

Pesticides:

- K031 By-product salts generated in the production of MSMA and cacodylic acid. (T)
- K032 Wastewater treatment sludge from the production of chlordane. (T)
- K033 Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane. (T)

K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.	(T)
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.	(T)
K035	Wastewater treatment sludges generated in the production of creosote.	(T)
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton.	(T)
K037	Wastewater treatment sludges from the production of disulfoton.	(T)
K038	Wastewater from the washing and stripping of phorate production.	(T)
K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate.	(T)
K040	Wastewater treatment sludge from the production of phorate.	(T)
K041	Wastewater treatment sludge from the production of toxaphene.	(T)
K098	Untreated process wastewater from the production of toxaphene.	(T)
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.	(T)
K043	2,6-Dichlorophenol waste from the production of 2,4-D.	(T)
K099	Untreated wastewater from the production of 2,4-D.	(T)
K123	Process wastewater (including supernates, filtrates and washwaters) from the production of ethylenebisdithiocarbamic acid and its salts.	(T)
K124	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts.	(C,T)
K125	Filtration, evaporation and centrifugation	(T)

solids from the production of ethylenebisdithiocarbamic acid and its salts.

- K126 Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts. (T)
- K131 Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide. (C,T)
- K132 Spent absorbent and wastewater separator solids from the production of methyl bromide. (T)

#### Explosives:

- K044 Wastewater treatment sludges from the manufacturing and processing of explosives. (R)
- K045 Spent carbon from the treatment of wastewater containing explosives. (R)
- K046 Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds. (T)
- K047 Pink/red water from TNT operations. (R)

#### Petroleum Refining:

- K048 Dissolved air flotation (DAF) float from the petroleum refining industry. (T)
- K049 Slop oil emulsion solids from the petroleum refining industry. (T)
- K050 Heat exchanger bundle cleaning sludge from the petroleum refining industry. (T)
- K051 API separator sludge from the petroleum refining industry. (T)
- K052 Tank bottoms (leaded) from the petroleum refining industry. (T)

#### Iron and Steel:

- K061 Emission control dust/sludge from the primary production of steel in electric furnaces. (T)

K062 Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332) (as defined in 35 Ill. Adm. Code 720.110). (C,T)

Primary Copper:

K064 Acid plant blowdown slurry or sludge resulting from the thickening of blowdown slurry from primary copper production. (T)

Primary Lead:

K065 Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities. (T)

Primary Zinc:

K066 Sludge from treatment of process wastewater or acid plant blowdown from primary zinc production. (T)

BOARD NOTE: This waste listing is the subject of a judicial remand in American Mining Congress v. EPA, 907 F.2d 1179 (D.D.C. 1990). The Board intends that this listing not become enforceable in Illinois until the first date upon which the Board RCRA program becomes "not equivalent to the Federal program", within the meaning of Section 3006(b) of the RCRA Act, 42 U.S.C. 6926(b), the Board RCRA rules become "less stringent" than the USEPA rules, as this phrase is used in Section 3009, 42 U.S.C. 6929, or the Board RCRA rules are not "identical in substance" with the federal rules as that term is intended by 415 ILCS 5/7.2 and 22.4 as a result of some action by USEPA with regard to this listing in response to the American Mining Congress remand.

Primary Aluminum:

K088 Spent potliners from primary aluminum reduction. (T)

Ferroalloys:

K090 Emission control dust or sludge from ferrochromiumsilicon production. (T)

K091 Emission control dust or sludge from ferrochromium production. (T)

Secondary Lead:

K069 Emission control dust/sludge from secondary lead smelting. (T)

BOARD NOTE: This listing is administratively stayed for sludge generated from secondary acid scrubber systems. The stay will remain in effect until this note is removed.

K100 Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting. (T)

Veterinary Pharmaceuticals:

K084 Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds. (T)

K101 Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or ~~organoarsenic-organ~~-arsenic compounds. (T)

K102 Residue from use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds. (T)

Ink Formulation:

K086 Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, dryers, soaps and stabilizers containing chromium and lead. (T)

Coking:

K060 Ammonia still lime sludge from coking operations. (T)

K087	Decanter tank tar sludge from coking operations.	(T)
K141	Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke from coal or the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank tar sludges from coking operations).	(T)
K142	Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal.	(T)
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.	(T)
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.	(T)
K145	Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal.	(T)
K147	Tar storage tank residues from coal tar refining.	(T)
K148	Residues from coal tar distillation, including but not limited to, still bottoms.	(T)
K149	Distillation bottoms from the production of <b>alpha</b> - (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 distillation of benzyl chloride.)	(T)
K150	Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of <b>alpha</b> - (or methyl-) chlorinated toluenes, ring-	(T)

chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.

K151 Wastewater treatment sludges, excluding (T)  
neutralization and biological sludges,  
generated during the treatment of  
wastewaters from the production of **alpha-**  
**α**(or methyl-) chlorinated toluenes, ring-  
chlorinated toluenes, benzoyl chlorides, and  
compounds with mixtures of these functional  
groups.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective  
\_\_\_\_\_)

Section 721.133 Discarded Commercial Chemical Products, Off-  
Specification Species, Container Residues, and  
Spill Residues Thereof

The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded as described in Section 721.102(a)(2)(A), when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment, when they are otherwise applied to the land in lieu of their original intended use or when they are contained in products that are applied to land in lieu of their original intended use, or when, in lieu of their original intended use, they are produced for use as (or as a component of) a fuel, distributed for use as a fuel, or burned as a fuel.

- a) Any commercial chemical product, or manufacturing chemical intermediate having the generic name listed in subsection (e) or (f) of this Section.
- b) Any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in subsection (e) or (f) of this Section.
- c) Any residue remaining in a container or inner liner removed from a container that has held any commercial chemical product or manufacturing chemical intermediate having the generic name listed in subsection (e) or (f) of this Section, unless the container is empty as defined in Section 721.107(b)(3).

BOARD NOTE: Unless the residue is being beneficially used or reused, or legitimately recycled or reclaimed, or being accumulated, stored, transported, or treated prior to such use, reuse, recycling, or reclamation,

the Board considers the residue to be intended for discard, and thus a hazardous waste. An example of a legitimate reuse of the residue would be where the residue remains in the container and the container is used to hold the same commercial chemical product or manufacturing chemical intermediate it previously held. An example of the discard of the residue would be where the drum is sent to a drum reconditioner that reconditions the drum but discards the residue.

- d) Any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill into or on any land or water of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in subsection (e) or (f) of this Section, or any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill into or on any land or water, of any off-specification chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in subsection (e) or (f) of this Section.

BOARD NOTE: The phrase "commercial chemical product or manufacturing chemical intermediate having the generic name listed in ..." refers to a chemical substance that is manufactured or formulated for commercial or manufacturing use which consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and all formulations in which the chemical is the sole active ingredient. It does not refer to a material, such as a manufacturing process waste, that contains any of the substances listed in subsection (e) or (f) of this Section. Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in subsection (e) or (f) of this Section, such waste will be listed in either Sections 721.131 or 721.132 or will be identified as a hazardous waste by the characteristics set forth in Subpart C.

- e) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products or manufacturing chemical intermediates referred to in subsections (a) through (d) of this Section, are identified as acute hazardous waste (H) and are subject to the small quantity exclusion defined in Section 721.105(e). These wastes and their corresponding USEPA Hazardous Waste Numbers are:

BOARD NOTE: For the convenience of the regulated community the primary hazardous properties of these

materials have been indicated by the letters T (Toxicity), and R (Reactivity). The absence of a letter indicates that the compound only is listed for acute toxicity.

Chemical Hazardous Abstracts		Substance
Waste No.	No.	
P023	107-20-0	Acetaldehyde, chloro-
P002	591-08-2	Acetamide, N-(aminothioxomethyl)
P057	640-19-7	Acetamide, 2-fluoro-
P058	62-74-8	Acetic acid, fluoro-, sodium salt
P002	591-08-2	1-Acetyl-2-thiourea
P003	107-02-8	Acrolein
P070	116-06-3	Aldicarb
P203	1646-88-4	Aldicarb sulfone
P004	309-00-2	Aldrin
P005	107-18-6	Allyl alcohol
P006	20859-73-8	Aluminum phosphide (R,T)
P007	2763-96-4	5-(Aminomethyl)-3-isoxazolol
P008	504-24-5	4-Aminopyridine
P009	131-74-8	Ammonium picrate (R)
P119	7803-55-6	Ammonium vanadate
P099	506-61-6	Argentate(1-), bis(cyano-C)-, potassium
P010	7778-39-4	Arsenic acid $H_3AsO_4$
P012	1327-53-3	Arsenic oxide $As_2O_3$
P011	1303-28-2	Arsenic oxide $As_2O_5$
P011	1303-28-2	Arsenic pentoxide
P012	1327-53-3	Arsenic trioxide
P038	692-42-2	Arsine, diethyl-
P036	696-28-6	Arsonous dichloride, phenyl-
P054	151-56-4	Aziridine
P067	75-55-8	Aziridine, 2-methyl
P013	542-62-1	Barium cyanide
P024	106-47-8	Benzenamine, 4-chloro-
P077	100-01-6	Benzenamine, 4-nitro-
P028	100-44-7	Benzene, (chloromethyl)-
P042	51-43-4	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-
P046	122-09-8	Benzeneethanamine, <b>alpha</b> , <b>alpha</b> -dimethyl-
P014	108-98-5	Benzenethiol
P127	1563-66-2	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate
P188	57-64-7	Benzoic acid, 2-hydroxy-, compound with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo[2,3-b]indol-5-yl methylcarbamate ester (1:1)

P001	81-81-2*	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, and salts, when present at concentrations greater than 0.3%
P028	100-44-7	Benzyl chloride
P015	7440-41-7	Beryllium powder
P017	598-31-2	Bromoacetone
P018	357-57-3	Brucine
P045	39196-18-6	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[methylamino)-carbonyl] oxime
P021	592-01-8	Calcium cyanide
P021	592-01-8	Calcium cyanide $\text{Ca}(\text{CN})_2$
P189	55285-14-8	Carbamic acid, [(dibutylamino)-thio]methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester
P191	644-64-4	Carbamic acid, dimethyl-, 1-[(dimethyl-amino)carbonyl]-5-methyl-1H-pyrazol-3-yl ester
P192	119-38-0	Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H-pyrazol-5-yl ester
P190	1129-41-5	Carbamic acid, methyl-, 3-methyl-phenyl ester
P127	1563-66-2	Carbofuran
P022	75-15-0	Carbon disulfide
P095	75-44-5	Carbonic dichloride
P189	55285-14-8	Carbosulfan
P023	107-20-0	Chloroacetaldehyde
P024	106-47-8	p-Chloroaniline
P026	5344-82-1	1-(o-Chlorophenyl)thiourea
P027	542-76-7	3-Chloropropionitrile
P029	544-92-3	Copper cyanide
P029	544-92-3	Copper cyanide $\text{CuCN}$
P202	64-00-6	m-Cumenyl methylcarbamate
P030		Cyanides (soluble cyanide salts), not otherwise specified
P031	460-19-5	Cyanogen
P033	506-77-4	Cyanogen chloride
P033	506-77-4	Cyanogen chloride $\text{CNCl}$
P034	131-89-5	2-Cyclohexyl-4,6-dinitrophenol
P016	542-88-1	Dichloromethyl ether
P036	696-28-6	Dichlorophenylarsine
P037	60-57-1	Dieldrin
P038	692-42-2	Diethylarsine
P041	311-45-5	Diethyl-p-nitrophenyl phosphate
P040	297-97-2	O,O-Diethyl O-pyrazinyl phosphorothioate
P043	55-91-4	Diisopropylfluorophosphate (DFP)
P191	644-64-4	Dimetilan
P004	309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-

		1,4,4a,5,8,8a-hexahydro-, (1 $\alpha$ ,4 $\alpha$ ,4 $\beta$ ,5 $\alpha$ , 8 $\alpha$ ,8 $\beta$ )-
P060	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro- 1,4,4a,5,8,8a-hexahydro-, (1 $\alpha$ ,4 $\alpha$ ,4 $\beta$ ,5 $\beta$ ,8 $\beta$ ,8 $\beta$ )-
P037	60-57-1	2,7:3,6-Dimethanonaphth[2,3-b]- oxirene, 3,4,5,6,9,9-hexachloro- 1a,2,2a,3,6,6a,7,7a-octahydro-, (1a $\alpha$ ,2 $\beta$ ,2a $\alpha$ ,3 $\beta$ , 6 $\beta$ ,6a $\alpha$ ,7 $\beta$ ,7a $\alpha$ )-
P051	72-20-8*	2,7:3,6-Dimethanonaphth[2,3-b]- oxirene, 3,4,5,6,9,9-hexachloro- 1a,2,2a,3,6,6a,7,7a-octahydro-, (1a $\alpha$ ,2 $\beta$ ,2 $\beta$ ,3 $\alpha$ , 6 $\alpha$ ,6a $\beta$ ,7 $\beta$ ,7a $\alpha$ )- , and metabolites
P044	60-51-5	Dimethoate
P046	122-09-8	$\alpha$ , $\alpha$ -Dimethylphenethyl- amine
P047	534-52-1*	4,6-Dinitro-o-cresol and salts
P048	51-28-5	2,4-Dinitrophenol
P020	88-85-7	Dinoseb
P085	152-16-9	Diphosphoramidate, octamethyl-
P111	107-49-3	Diphosphoric acid, tetraethyl ester
P039	298-04-4	Disulfoton
P049	541-53-7	Dithiobiuret
P185	26419-73-8	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O-[(methylamino)- carbonyl]oxime
P050	115-29-7	Endosulfan
P088	145-73-3	Endothall
P051	72-20-8	Endrin
P051	72-20-8	Endrin, and metabolites
P042	51-43-4	Epinephrine
P031	460-19-5	Ethanedinitrile
P194	23135-22-0	Ethanimidothioc acid, 2-(di- methylamino)-N-[(methylamino)- carbonyl]oxy]-2-oxo-, methyl ester
P066	16752-77-5	Ethanimidothioic acid, N- [(methylamino)carbonyl]oxy]-, methyl ester
P101	107-12-0	Ethyl cyanide
P054	151-56-4	Ethylenimine
P097	52-85-7	Famphur
P056	7782-41-4	Fluorine

P057	640-19-7	Fluoroacetamide
P058	62-74-8	Fluoroacetic acid, sodium salt
P198	23422-53-9	Formetanate hydrochloride
P197	17702-57-7	Formparanate
P065	628-86-4	Fulminic acid, mercury (2+) salt (R,T)
P059	76-44-8	Heptachlor
P062	757-58-4	Hexaethyl tetraphosphate
P116	79-19-6	Hydrazinecarbothioamide
P068	60-34-4	Hydrazine, methyl-
P063	74-90-8	Hydrocyanic acid
P063	74-90-8	Hydrogen cyanide
P096	7803-51-2	Hydrogen phosphide
P060	465-73-6	Isodrin
P192	119-38-0	Isolan
P202	64-00-6	3-Isopropylphenyl-N-methyl- carbamate
P007	2763-96-4	3(2H)-Isoxazolone, 5-(amino- methyl)-
P196	15339-36-3	Manganese, bis(dimethylcarbamato- dithioato-S,S')-
P196	15339-36-3	Manganese dimethyldithiocarbamate
P092	62-38-4	Mercury, (acetato-O)phenyl-
P065	628-86-4	Mercury fulminate (R,T)
P082	62-75-9	Methanamine, N-methyl-N-nitroso-
P064	624-83-9	Methane, isocyanato-
P016	542-88-1	Methane, oxybis[chloro-
P112	509-14-8	Methane, tetranitro- (R)
P118	75-70-7	Methanethiol, trichloro-
P198	23422-53-9	Methanimidamide, N,N-dimethyl-N'- [3-[[[(methylamino)-carbonyl]oxy]- phenyl]-, monohydrochloride
P197	17702-57-7	Methanimidamide, N,N-dimethyl-N'- [2-methyl-4-[[[(methylamino)- carbonyl]oxy]phenyl]-
P199	2032-65-7	Methiocarb
P050	115-29-7	6,9-Methano-2,4,3-benzodi- oxathiepen, 6,7,8,9,10,10-hexa- chloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide
P059	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro- 3a,4,7,7a-tetrahydro-
P066	16752-77-5	Methomyl
P068	60-34-4	Methyl hydrazine
P064	624-83-9	Methyl isocyanate
P069	75-86-5	2-Methyl lactonitrile
P071	298-00-0	Methyl parathion
P190	1129-41-5	Metolcarb
P129	315-8-4	Mexacarbate
P072	86-88-4	<b>alpha</b> -Naphthylthiourea

P073	13463-39-3	Nickel carbonyl
P073	13463-39-3	Nickel carbonyl $\text{Ni}(\text{CO})_4$ , (T-4)-
P074	557-19-7	Nickel cyanide
P074	557-19-7	Nickel cyanide $\text{Ni}(\text{CN})_2$
P075	54-11-5*	Nicotine, and salts
P076	10102-43-9	Nitric oxide
P077	100-01-6	p-Nitroaniline
P078	10102-44-0	Nitrogen dioxide
P076	10102-43-9	Nitrogen oxide NO
P078	10102-44-0	Nitrogen oxide $\text{NO}_2$
P081	55-63-0	Nitroglycerine (R)
P082	62-75-9	N-Nitrosodimethylamine
P084	4549-40-0	N-Nitrosomethylvinylamine
P085	152-16-9	Octamethylpyrophosphoramidate
P087	20816-12-0	Osmium oxide $\text{OsO}_4$ , (T-4)-
P087	20816-12-0	Osmium tetroxide
P088	145-73-3	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
P194	23135-22-0	Oxamyl
P089	56-38-2	Parathion
P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-
P128	315-18-4	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)
P199	2032-65-7	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate
P048	51-28-5	Phenol, 2,4-dinitro-
P047	534-52-1*	Phenol, 2-methyl-4,6-dinitro-, and salts
P202	64-00-6	Phenol, 3-(1-methylethyl)-, methyl carbamate
P201	2631-37-0	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate
P020	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-
P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P092	62-38-4	Phenylmercury acetate
P093	103-85-5	Phenylthiourea
P094	298-02-2	Phorate
P095	75-44-5	Phosgene
P096	7803-51-2	Phosphine
P041	311-45-5	Phosphoric acid, diethyl 4-nitrophenyl ester
P039	298-04-4	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester
P094	298-02-2	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester
P044	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl]ester

P043	55-91-4	Phosphorofluoridic acid, bis(1-methylethyl)ester
P089	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
P040	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P097	52-85-7	Phosphorothioic acid, O-[4-[(di-methylamino)sulfonyl]phenyl] O,O-dimethyl ester
P071	298-00-0	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester
P204	57-47-6	Physostigmine
P188	57-64-7	Physostigmine salicylate
P110	78-00-2	Plumbane, tetraethyl-
P098	151-50-8	Potassium cyanide
P098	151-50-8	Potassium cyanide KCN
P099	506-61-6	Potassium silver cyanide
P201	2631-37-0	Promecarb
P203	1646-88-4	Propanal, 2-methyl-2-(methylsulfonyl)-, O-[(methylamino)carbonyl] oxime
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime
P101	107-12-0	Propanenitrile
P027	542-76-7	Propanenitrile, 3-chloro-
P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-
P081	55-63-0	1,2,3-Propanetriol, trinitrate-(R)
P017	598-31-2	2-Propanone, 1-bromo-
P102	107-19-7	Propargyl alcohol
P003	107-02-8	2-Propenal
P005	107-18-6	2-Propen-1-ol
P067	75-55-8	1,2-Propylenimine
P102	107-19-7	2-Propyn-1-ol
P008	504-24-5	4-Pyridinamine
P075	54-11-5*	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)- and salts
P204	57-47-6	Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-
P114	12039-52-0	Selenious acid, dithallium (1+) salt
P103	630-10-4	Selenourea
P104	506-64-9	Silver cyanide
P104	506-64-9	Silver cyanide AgCN
P105	26628-22-8	Sodium azide
P106	143-33-9	Sodium cyanide
P106	143-33-9	Sodium cyanide NaCN
P108	57-24-9*	Strychnidin-10-one, and salts

P018	357-57-3	Strychnidin-10-one, 2,3-di-methoxy-
P108	57-24-9*	Strychnine and salts
P115	7446-18-6	Sulfuric acid, dithallium (1+) salt
P109	3689-24-5	Tetraethyldithiopyrophosphate
P110	78-00-2	Tetraethyl lead
P111	107-49-3	Tetraethylpyrophosphate
P112	509-14-8	Tetranitromethane (R)
P062	757-58-4	Tetrphosphoric acid, hexaethyl ester
P113	1314-32-5	Thallic oxide
P113	1314-32-5	Thallium oxide $Tl_2O_3$
P114	12039-52-0	Thallium (I) selenite
P115	7446-18-6	Thallium (I) sulfate
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester
P045	39196-18-4	Thiofanox
P049	541-53-7	Thioimidodicarbonic diamide $[(H_2N)C(S)]_2NH$
P014	108-98-5	Thiophenol
P116	79-19-6	Thiosemicarbazide
P026	5344-82-1	Thiourea, (2-chlorophenyl)-
P072	86-88-4	Thiourea, 1-naphthalenyl-
P093	103-85-5	Thiourea, phenyl-
P123	8001-35-2	Toxaphene
P185	26419-73-8	Tirpate
P118	75-70-7	Trichloromethanethiol
P119	7803-55-6	Vanadic acid, ammonium salt
P120	1314-62-1	Vanadium oxide $V_2O_5$
P120	1314-62-1	Vanadium pentoxide
P084	4549-40-0	Vinylamine, N-methyl-N-nitroso-
P001	81-81-2*	Warfarin, and salts, when present at concentrations greater than 0.3%
P121	557-21-1	Zinc cyanide
P121	557-21-1	Zinc cyanide $Zn(CN)_2$
P205	137-30-4	Zinc, bis(dimethylcarbamo-dithioato-S,S')-
P122	1314-84-7	Zinc phosphide $Zn_3P_2$ , when present at concentrations greater than 10% (R,T)
P205	137-30-4	Ziram

BOARD NOTE: An asterisk (\*) following the CAS number indicates that the CAS number is given for the parent compound only.

- f) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products referred to in subsections (a) through (d) of this Section, are identified as toxic

wastes (T) unless otherwise designated and are subject to the small quantity exclusion defined in Section 721.105(a) and (g). These wastes and their corresponding USEPA Hazardous Waste Numbers are:

BOARD NOTE: For the convenience of the regulated community, the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), R (Reactivity), I (Ignitability), and C (Corrosivity). The absence of a letter indicates that the compound is only listed for toxicity.

Chemical Hazardous Abstracts		Substance
Waste No.	No.	
U394	30558-43-1	A2213
U001	75-07-0	Acetaldehyde (I)
U034	75-87-6	Acetaldehyde, trichloro-
U187	62-44-2	Acetamide, N-(4-ethoxyphenyl)-
U005	53-96-3	Acetamide, N-9H-fluoren-2-yl-
U240	P 94-75-7	Acetic acid, (2,4-dichloro- phenoxy)-, salts and esters
U112	141-78-6	Acetic acid, ethyl ester (I)
U144	301-04-2	Acetic acid, lead (2+) salt
U214	563-68-8	Acetic acid, thallium (1+) salt
See F027	93-76-5	Acetic acid, (2,4,5-trichloro- phenoxy)-
<del>U002</del> U002	67-64-1	Acetone (I)
<del>U003</del> U003	75-05-8	Acetonitrile (I,T)
U004	98-86-2	Acetophenone
U005	53-96-3	2-Acetylaminofluorene
U006	75-36-5	Acetyl chloride (C,R,T)
U007	79-06-1	Acrylamide
U008	79-10-7	Acrylic acid (I)
U009	107-13-1	Acrylonitrile
U011	61-82-5	Amitrole
U012	62-53-3	Aniline (I,T)
U136	75-60-5	Arsinic acid, dimethyl-
U014	492-80-8	Auramine
U015	115-02-6	Azaserine
U010	50-07-7	Azirino[2',3':3,4]pyrrolo[1,2-a]- indole-4,7-dione, 6-amino-8- [[ (aminocarbonyl)oxy]methyl]- 1,1a,2,8,8a,8b-hexahydro-8a- methoxy-5-methyl-, [1a-S- (1a $\alpha$ , 8 $\beta$ , 8a $\alpha$ , 8b $\alpha$ )- $\alpha$ ]-
U280	101-27-9	Barban
U278	22781-23-3	Bendiocarb
U364	22961-82-6	Bendiocarb phenol

U271	17804-35-2	Benomyl
U157	56-49-5	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-
U016	225-51-4	Benz(c)acridine
U017	98-87-3	Benzal chloride
U192	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-
U018	56-55-3	Benz[a]anthracene
U094	57-97-6	Benz[a]anthracene, 7,12-dimethyl-
U012	62-53-3	Benzenamine (I,T)
U014	492-80-8	Benzenamine, 4,4'-carbonimidoyl-bis[N,N-dimethyl-
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-, hydrochloride
U093	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-
U328	95-53-4	Benzenamine, 2-methyl-
U353	106-49-0	Benzenamine, 4-methyl-
U158	101-14-4	Benzenamine, 4,4'-methylenebis[2-chloro-
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride
U181	99-55-8	Benzenamine, 2-methyl-5-nitro-
U019	71-43-2	Benzene (I,T)
U038	510-15-6	Benzeneacetic acid, 4-chloro- <b>alpha</b> -(4-chlorophenyl)- <b>alpha</b> -hydroxy-, ethyl ester
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-
U035	305-03-3	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-
U037	108-90-7	Benzene, chloro-
U221	25376-45-8	Benzenediamine, ar-methyl-
U028	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U069	84-74-2	1,2-Benzenedicarboxylic acid, di-butyl ester
U088	84-66-2	1,2-Benzenedicarboxylic acid, di-ethyl ester
U102	131-11-3	1,2-Benzenedicarboxylic acid, di-methyl ester
U107	117-84-0	1,2-Benzenedicarboxylic acid, di-octyl ester
U070	95-50-1	Benzene, 1,2-dichloro-
U071	541-73-1	Benzene, 1,3-dichloro-
U072	106-46-7	Benzene, 1,4-dichloro-
U060	72-54-8	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-
U017	98-87-3	Benzene, (dichloromethyl)-
U223	26471-62-5	Benzene, 1,3-diisocyanatomethyl-(R,T)
U239	1330-20-7	Benzene, dimethyl- (I,T)

U201	108-46-3	1,3-Benzenediol
U127	118-74-1	Benzene, hexachloro-
U056	110-82-7	Benzene, hexahydro- (I)
U220	108-88-3	Benzene, methyl-
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-
U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-
U055	98-82-8	Benzene, (1-methylethyl)- (I)
U169	98-95-3	Benzene, nitro-
U183	608-93-5	Benzene, pentachloro-
U185	82-68-8	Benzene, pentachloronitro-
U020	98-09-9	Benzenesulfonic acid chloride (C,R)
U020	98-09-9	Benzenesulfonyl chloride (C,R)
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-
U061	50-29-3	Benzene, 1,1'-(2,2,2-trichloro- ethylidene)bis[4-chloro-
U247	72-43-5	Benzene, 1,1'-(2,2,2-trichloro- ethylidene)bis[4-methoxy-
U023	98-07-7	Benzene, (trichloromethyl)-
U234	99-35-4	Benzene, 1,3,5-trinitro-
U021	92-87-5	Benzidene
U202	P 81-07-2	1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide, and salts
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
U090	94-58-6	1,3-Benzodioxole, 5-propyl-
U278	22781-23-3	1,3-Benzodioxol-4-ol, 2,2-di- methyl-, methyl carbamate
U364	22961-82-6	1,3-Benzodioxol-4-ol, 2,2- dimethyl-
U367	1563-38-8	7-Benzofuranol, 2,3-dihydro-2,2- dimethyl-
U064	189-55-9	Benzo[ <i>rst</i> ]pentaphene
U248	P 81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy- 3-(3-oxo-1-phenylbutyl)-, and salts, when present at concentrations of 0.3% or less
U022	50-32-8	Benzo[ <i>a</i> ]pyrene
U197	106-51-4	p-Benzoquinone
U023	98-07-7	Benzotrichloride (C,R,T)
U085	1464-53-5	2,2'-Bioxirane
U021	92-87-5	[1,1'-Biphenyl]-4,4'-diamine
U073	91-94-1	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-
U091	119-90-4	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-
U095	119-93-7	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-
U225	75-25-2	Bromoform
U030	101-55-3	4-Bromophenyl phenyl ether
U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexa- chloro-

U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-
U031	71-36-3	1-Butanol (I)
U159	78-93-3	2-Butanone (I,T)
U160	1338-23-4	2-Butanone, peroxide (R,T)
U053	4170-30-3	2-Butenal
U074	764-41-0	2-Butene, 1,4-dichloro- (I,T)
U143	303-34-4	2-Butenoic acid, 2-methyl-, 7- [[2,3-dihydroxy-2-(1-methoxy- ethyl)-3-methyl-1-oxobutoxy]- methyl]-2,3,5,7a-tetrahydro-1H- pyrrolizin-1-yl ester, [1S- [1 $\alpha$ (Z), 7(2S*,3R*), 7a $\alpha$ ]]-
U031	71-36-3	n-Butyl alcohol (I)
U136	75-60-5	Cacodylic acid
U032	13765-19-0	Calcium chromate
U372	10605-21-7	Carbamic acid, 1H-benzimidazol-2- yl, methyl ester
U271	17804-35-2	Carbamic acid, [1-[(butylamino)- carbonyl]-1H-benzimidazol-2-yl]-, methyl ester
U280	101-27-9	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester
U238	51-79-6	Carbamic acid, ethyl ester
U178	615-53-2	Carbamic acid, methylnitroso-, ethyl ester
U373	122-42-9	Carbamic acid, phenyl-, 1-methyl- ethyl ester
U409	23564-05-8	Carbamic acid, [1,2-phenylenebis- (iminocarbonothioyl)]bis-, dimethyl ester
U097	79-44-7	Carbamic chloride, dimethyl-
U114	P 111-54-6	Carbamodithioic acid, 1,2- ethanediylobis-, salts and esters
U062	2303-16-4	Carbamothioic acid, bis(1-methyl- ethyl)-, S-(2,3-dichloro-2- propenyl) ester
U389	2303-17-5	Carbamothioic acid, bis(1-methyl- ethyl)-, S-(2,3,3-trichloro-2- propenyl) ester
U387	52888-80-9	Carbamothioic acid, dipropyl-, S- (phenylmethyl) ester
U279	63-25-2	Carbaryl
U372	10605-21-7	Carbendazim
U367	1563-38-8	Carbofuran phenol
U215	6533-73-9	Carbonic acid, dithallium (1+) salt
U033	353-50-4	Carbonic difluoride
U156	79-22-1	Carbonochloridic acid, methyl ester (I,T)
U033	353-50-4	Carbon oxyfluoride (R,T)

U211	56-23-5	Carbon tetrachloride
U034	75-87-6	Chloral
U035	305-03-3	Chlorambucil
U036	57-74-9	Chlordane, $\alpha$ and $\gamma$ isomers
U026	494-03-1	Chlornaphazin
U037	108-90-7	Chlorobenzene
U038	510-15-6	Chlorobenzilate
U039	59-50-7	p-Chloro-m-cresol
U042	110-75-8	2-Chloroethyl vinyl ether
U044	67-66-3	Chloroform
U046	107-30-2	Chloromethyl methyl ether
U047	91-58-7	$\beta$ -Chloronaphthalene
U048	95-57-8	o-Chlorophenol
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride
U032	13765-19-0	Chromic acid $H_2CrO_4$ , calcium salt
U050	218-01-9	Chrysene
U051		Creosote
U052	1319-77-3	Cresol (Cresylic acid)
U053	4170-30-3	Crotonaldehyde
U055	98-82-8	Cumeme (I)
U246	506-68-3	Cyanogen bromide CNBr
U197	106-51-4	2,5-Cyclohexadiene-1,4-dione
U056	110-82-7	Cyclohexane (I)
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1 $\alpha$ , 2 $\alpha$ , 3 $\beta$ , 4 $\alpha$ , 5 $\alpha$ , 6 $\beta$ )-
U057	108-94-1	Cyclohexanone (I)
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U058	50-18-0	Cyclophosphamide
U240	P 94-75-7	2,4-D, salts and esters
U059	20830-81-3	Daunomycin
U060	72-54-8	DDD
U061	50-29-3	DDT
U062	2303-16-4	Diallate
U063	53-70-3	Dibenz[a,h]anthracene
U064	189-55-9	Dibenzo[a,i]pyrene
U066	96-12-8	1,2-Dibromo-3-chloropropane
U069	84-74-2	Dibutyl phthalate
U070	95-50-1	o-Dichlorobenzene
U071	541-73-1	m-Dichlorobenzene
U072	106-46-7	p-Dichlorobenzene
U073	91-94-1	3,3'-Dichlorobenzidine
U074	764-41-0	1,4-Dichloro-2-butene (I,T)
U075	75-71-8	Dichlorodifluoromethane
U078	75-35-4	1,1-Dichloroethylene
U079	156-60-5	1,2-Dichloroethylene
U025	111-44-4	Dichloroethyl ether

U027	108-60-1	Dichloroisopropyl ether
U024	111-91-1	Dichloromethoxy ethane
U081	120-83-2	2,4-Dichlorophenol
U082	87-65-0	2,6-Dichlorophenol
U084	542-75-6	1,3-Dichloropropene
U085	1464-53-5	1,2:3,4-Diepoxybutane (I,T)
U395	5952-26-1	Diethylene glycol, dicarbamate
U108	123-91-1	1,4-Diethyleneoxide
U028	117-81-7	Diethylhexyl phthalate
U086	1615-80-1	N,N'-Diethylhydrazine
U087	3288-58-2	O,O-Diethyl S-methyl di- thiophosphate
U088	84-66-2	Diethyl phthalate
U089	56-53-1	Diethylstilbestrol
U090	94-58-6	Dihydrosafrole
U091	119-90-4	3,3'-Dimethoxybenzidine
U092	124-40-3	Dimethylamine (I)
U093	60-11-7	p-Dimethylaminoazobenzene
U094	57-97-6	7,12-Dimethylbenz[a]anthracene
U095	119-93-7	3,3'-Dimethylbenzidine
U096	80-15-9	<b>alpha</b> , <b>alpha</b> -Dimethyl- benzylhydroperoxide (R)
U097	79-44-7	Dimethylcarbonyl chloride
U098	57-14-7	1,1-Dimethylhydrazine
U099	540-73-8	1,2-Dimethylhydrazine
U101	105-67-9	2,4-Dimethylphenol
U102	131-11-3	Dimethyl phthalate
U103	77-78-1	Dimethyl sulfate
U105	121-14-2	2,4-Dinitrotoluene
U106	606-20-2	2,6-Dinitrotoluene
U107	117-84-0	Di-n-octyl phthalate
U108	123-91-1	1,4-Dioxane
U109	122-66-7	1,2-Diphenylhydrazine
U110	142-84-7	Dipropylamine (I)
U111	621-64-7	Di-n-propylnitrosamine
U041	106-89-8	Epichlorohydrin
U001	75-07-0	Ethanal (I)
U404	121-44-8	Ethanamine, N,N-diethyl-
U174	55-18-5	Ethanamine, N-ethyl-N-nitroso-
U155	91-80-5	1,2-Ethanediamine, N,N-dimethyl- N'-2-pyridinyl-N'-(2-thienyl- methyl)-
U067	106-93-4	Ethane, 1,2-dibromo-
U076	75-34-3	Ethane, 1,1-dichloro-
U077	107-06-2	Ethane, 1,2-dichloro-
U131	67-72-1	Ethane, hexachloro-
U024	111-91-1	Ethane, 1,1'-[methylenebis(oxy)]- bis[2-chloro-
U117	60-29-7	Ethane, 1,1'-oxybis- (I)
U025	111-44-4	Ethane, 1,1'-oxybis[2-chloro-
U184	76-01-7	Ethane, pentachloro-

U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-
U218	62-55-5	Ethanethioamide
U226	71-55-6	Ethane, 1,1,1-trichloro-
U227	79-00-5	Ethane, 1,1,2-trichloro-
U410	59669-26-0	Ethanimidothioic acid, N,N'- [thiobis[(methylimino)carbonyl- oxy]]bis-, dimethyl ester
U394	30558-43-1	Ethanimidothioic acid, 2- (dimethylamino)-N-hydroxy-2-oxo-, methyl ester
U359	110-80-5	Ethanol, 2-ethoxy-
U173	1116-54-7	Ethanol, 2,2'-(nitrosoimino)bis-
U395	5952-26-1	Ethanol, 2,2'-oxybis-, dicarbamate
U004	98-86-2	Ethanone, 1-phenyl-
U043	75-01-4	Ethene, chloro-
U042	110-75-8	Ethene, (2-chloroethoxy)-
U078	75-35-4	Ethene, 1,1-dichloro-
U079	156-60-5	Ethene, 1,2-dichloro-, (E)-
U210	127-18-4	Ethene, tetrachloro-
U228	79-01-6	Ethene, trichloro-
U112	141-78-6	Ethyl acetate (I)
U113	140-88-5	Ethyl acrylate (I)
U238	51-79-6	Ethyl carbamate (urethane)
U117	60-29-7	Ethyl ether
U114	P 111-54-6	Ethylenebisdithiocarbamic acid, salts and esters
U067	106-93-4	Ethylene dibromide
U077	107-06-2	Ethylene dichloride
U359	110-80-5	Ethylene glycol monoethyl ether
U115	75-21-8	Ethylene oxide (I,T)
U116	96-45-7	Ethylenethiourea
U076	75-34-3	Ethylidene dichloride
U118	97-63-2	Ethyl methacrylate
U119	62-50-0	Ethyl methanesulfonate
U120	206-44-0	Fluoranthene
U122	50-00-0	Formaldehyde
U123	64-18-6	Formic acid (C,T)
U124	110-00-9	Furan (I)
U125	98-01-1	2-Furancarboxaldehyde (I)
U147	108-31-6	2,5-Furandione
U213	109-99-9	Furan, tetrahydro- (I)
U125	98-01-1	Furfural (I)
U124	110-00-9	Furfuran (I)
U206	18883-66-4	Glucopyranose, 2-deoxy-2-(3- methyl-3-nitrosoureido)-, D-
U206	18883-66-4	D-Glucose, 2-deoxy-2-[[methyl- nitrosoamino)-carbonyl]amino]-
U126	765-34-4	Glycidylaldehyde
U163	70-25-7	Guanidine, N-methyl-N'-nitro-N- nitroso-

U127	118-74-1	Hexachlorobenzene
U128	87-68-3	Hexachlorobutadiene
U130	77-47-4	Hexachlorocyclopentadiene
U131	67-72-1	Hexachloroethane
U132	70-30-4	Hexachlorophene
U243	1888-71-7	Hexachloropropene
U133	302-01-2	Hydrazine (R,T)
U086	1615-80-1	Hydrazine, 1,2-diethyl-
U098	57-14-7	Hydrazine, 1,1-dimethyl-
U099	540-73-8	Hydrazine, 1,2-dimethyl-
U109	122-66-7	Hydrazine, 1,2-diphenyl-
U134	7664-39-3	Hydrofluoric acid (C,T)
U134	7664-39-3	Hydrogen fluoride (C,T)
U135	7783-06-4	Hydrogen sulfide
U135	7783-06-4	Hydrogen sulfide H <sub>2</sub> S
U096	80-15-9	Hydroperoxide, 1-methyl-1-phenyl-ethyl- (R)
U116	96-45-7	2-Imidazolidinethione
U137	193-39-5	Indeno[1,2,3-cd]pyrene
U190	85-44-9	1,3-Isobenzofurandione
U140	78-83-1	Isobutyl alcohol (I,T)
U141	120-58-1	Isosafrole
U142	143-50-0	Kepone
U143	303-34-4	Lasiocarpene
U144	301-04-2	Lead acetate
U146	1335-32-6	Lead, bis(acetato-O)tetrahydroxytri-
U145	7446-27-7	Lead phosphate
U146	1335-32-6	Lead subacetate
U129	58-89-9	Lindane
U163	70-25-7	MNNG
U147	108-31-6	Maleic anhydride
U148	123-33-1	Maleic hydrazide
U149	109-77-3	Malononitrile
U150	148-82-3	Melphalan
U151	7439-97-6	Mercury
U152	126-98-7	Methacrylonitrile (I,T)
U092	124-40-3	Methanamine, N-methyl- (I)
U029	74-83-9	Methane, bromo-
U045	74-87-3	Methane, chloro- (I,T)
U046	107-30-2	Methane, chloromethoxy-
U068	74-95-3	Methane, dibromo-
U080	75-09-2	Methane, dichloro-
U075	75-71-8	Methane, dichlorodifluoro-
U138	74-88-4	Methane, iodo-
U119	62-50-0	Methanesulfonic acid, ethyl ester
U211	56-23-5	Methane, tetrachloro-
U153	74-93-1	Methanethiol (I,T)
U225	75-25-2	Methane, tribromo-
U044	67-66-3	Methane, trichloro-
U121	75-69-4	Methane, trichlorofluoro-
U036	57-74-9	4,7-Methano-1H-indene,

		1,2,4,5,6,7,8,8-octachloro-
		2,3,3a,4,7,7a-hexahydro-
U154	67-56-1	Methanol (I)
U155	91-80-5	Methapyrilene
U142	143-50-0	1,3,4-Metheno-2H-cyclobuta[cd]- pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6- decachlorooctahydro-
U247	72-43-5	Methoxychlor
U154	67-56-1	Methyl alcohol (I)
U029	74-83-9	Methyl bromide
U186	504-60-9	1-Methylbutadiene (I)
U045	74-87-3	Methyl chloride (I,T)
U156	79-22-1	Methyl chlorocarbonate (I,T)
U226	71-55-6	Methylchloroform
U157	56-49-5	3-Methylcholanthrene
U158	101-14-4	4,4'-Methylenebis(2-chloro- aniline)
U068	74-95-3	Methylene bromide
U080	75-09-2	Methylene chloride
U159	78-93-3	Methyl ethyl ketone (MEK) (I,T)
U160	1338-23-4	Methyl ethyl ketone peroxide (R,T)
U138	74-88-4	Methyl iodide
U161	108-10-1	Methyl isobutyl ketone (I)
U162	80-62-6	Methyl methacrylate (I,T)
U161	108-10-1	4-Methyl-2-pentanone (I)
U164	56-04-2	Methylthiouracil
U010	50-07-7	Mitomycin C
U059	20830-81-3	5,12-Naphthacenedione, 8-acetyl- 10-[(3-amino-2,3,6-trideoxy)- <b>alpha</b> -L-lyxo-hexapyranosyl)- oxyl]-7,8,9,10-tetrahydro-6,8,11- trihydroxy-1-methoxy-, (8S-cis)-
U167	134-32-7	1-Naphthalenamine
U168	91-59-8	2-Naphthalenamine
U026	494-03-1	Naphthaleneamine, N,N'-bis(2- chloroethyl)-
U165	91-20-3	Naphthalene
U047	91-58-7	Naphthalene, 2-chloro-
U166	130-15-4	1,4-Naphthalenedione
U236	72-57-1	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl-[1,1'- biphenyl]-4,4'-diyl)bis(azo)bis- [5-amino-4-hydroxy]-, tetrasodium salt
U279	63-25-2	1-Naphthalenol, methylcarbamate
U166	130-15-4	1,4-Naphthoquinone
U167	134-32-7	<b>alpha</b> -Naphthylamine
U168	91-59-8	<b>beta</b> -Naphthylamine
U217	10102-45-1	Nitric acid, thallium (1+) salt

U169	98-95-3	Nitrobenzene (I,T)
U170	100-02-7	p-Nitrophenol
U171	79-46-9	2-Nitropropane (I,T)
U172	924-16-3	N-Nitrosodi-n-butylamine
U173	1116-54-7	N-Nitrosodiethanolamine
U174	55-18-5	N-Nitrosodiethylamine
U176	759-73-9	N-Nitroso-N-ethylurea
U177	684-93-5	N-Nitroso-N-methylurea
U178	615-53-2	N-Nitroso-N-methylurethane
U179	100-75-4	N-Nitrosopiperidine
U180	930-55-2	N-Nitrosopyrrolidine
U181	99-55-8	5-Nitro-o-toluidine
U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide
U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro- , 2-oxide
U115	75-21-8	Oxirane (I,T)
U126	765-34-4	Oxiranecarboxyaldehyde
U041	106-89-8	Oxirane, (chloromethyl)-
U182	123-63-7	Paraldehyde
U183	608-93-5	Pentachlorobenzene
U184	76-01-7	Pentachloroethane
U185	82-68-8	Pentachloronitrobenzene (PCNB)
See F027	87-86-5	Pentachlorophenol
U161	108-10-1	Pentanol, 4-methyl-
U186	504-60-9	1,3-Pentadiene (I)
U187	62-44-2	Phenacetin
U188	108-95-2	Phenol
U048	95-57-8	Phenol, 2-chloro-
U039	59-50-7	Phenol, 4-chloro-3-methyl-
U081	120-83-2	Phenol, 2,4-dichloro-
U082	87-65-0	Phenol, 2,6-dichloro-
U089	56-53-1	Phenol, 4,4'-(1,2-diethyl-1,2- ethenediyl)bis-, (E)-
U101	105-67-9	Phenol, 2,4-dimethyl-
U052	1319-77-3	Phenol, methyl-
U132	70-30-4	Phenol, 2,2'-methylenebis[3,4,6- trichloro-
U411	114-26-1	Phenol, 2-(1-methylethoxy)-, methylcarbamate
U170	100-02-7	Phenol, 4-nitro-
See F027	87-86-5	Phenol, pentachloro-
See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-
See F027	95-95-4	Phenol, 2,4,5-trichloro-
See F027	88-06-2	Phenol, 2,4,6-trichloro-
U150	148-82-3	L-Phenylalanine, 4-[bis(2-chloro- ethyl)amino]-
U145	7446-27-7	Phosphoric acid, lead (2+) salt (2:3)
U087	3288-58-2	Phosphorodithioic acid, O,O-di- ethyl S-methyl ester
U189	1314-80-3	Phosphorus sulfide (R)

U190	85-44-9	Phthalic anhydride
U191	109-06-8	2-Picoline
U179	100-75-4	Piperidine, 1-nitroso-
U192	23950-58-5	Pronamide
U194	107-10-8	1-Propanamine (I,T)
U111	621-64-7	1-Propanamine, N-nitroso-N-propyl-
U110	142-84-7	1-Propanamine, N-propyl- (I)
U066	96-12-8	Propane, 1,2-dibromo-3-chloro-
U083	78-87-5	Propane, 1,2-dichloro-
U149	109-77-3	Propanedinitrile
U171	79-46-9	Propane, 2-nitro- (I,T)
U027	108-60-1	Propane, 2,2'-oxybis[2-chloro-
See F027	93-72-1	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-
U193	1120-71-4	1,3-Propane sultone
U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U140	78-83-1	1-Propanol, 2-methyl- (I,T)
U002	67-64-1	2-Propanone (I)
U007	79-06-1	2-Propenamide
U084	542-75-6	1-Propene, 1,3-dichloro-
U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-
U009	107-13-1	2-Propenenitrile
U152	126-98-7	2-Propenenitrile, 2-methyl- (I,T)
U008	79-10-7	2-Propenoic acid (I)
U113	140-88-5	2-Propenoic acid, ethyl ester (I)
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
U373	122-42-9	Propam
U411	114-26-1	Propoxur
See F027	93-72-1	Propionic acid, 2-(2,4,5-trichlorophenoxy)-
U194	107-10-8	n-Propylamine (I,T)
U083	78-87-5	Propylene dichloride
U387	52888-80-9	Prosulfocarb
U148	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-
U196	110-86-1	Pyridine
U191	109-06-8	Pyridine, 2-methyl-
U237	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-
U164	58-04-2	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U180	930-55-2	Pyrrolidine, 1-nitroso-
U200	50-55-5	Reserpine
U201	108-46-3	Resorcinol
U202	P 81-07-2	Saccharin and salts
U203	94-59-7	Safrole
U204	7783-00-8	Selenious acid

U204	7783-00-8	Selenium dioxide
U205	7488-56-4	Selenium sulfide
U205	7488-56-4	Selenium sulfide $\text{SeS}_2$ (R,T)
U015	115-02-6	L-Serine, diazoacetate (ester)
See F027	93-72-1	Silvex (2,4,5-TP)
U206	18883-66-4	Streptozotocin
U103	77-78-1	Sulfuric acid, dimethyl ester
U189	1314-80-3	Sulfur phosphide (R)
See F027	93-76-5	2,4,5-T
U207	95-94-3	1,2,4,5-Tetrachlorobenzene
U208	630-20-6	1,1,1,2-Tetrachloroethane
U209	79-34-5	1,1,2,2-Tetrachloroethane
U210	127-18-4	Tetrachloroethylene
See F027	58-90-2	2,3,4,6-Tetrachlorophenol
U213	109-99-9	Tetrahydrofuran (I)
U214	563-68-8	Thallium (I) acetate
U215	6533-73-9	Thallium (I) carbonate
U216	7791-12-0	Thallium (I) chloride
U216	7791-12-0	Thallium chloride $\text{TlCl}$
U217	10102-45-1	Thallium (I) nitrate
U218	62-55-5	Thioacetamide
U410	59669-26-0	Thiodicarb
U153	74-93-1	Thiomethanol (I,T)
U244	137-26-8	Thioperoxydicarbonic diamide [ $(\text{H}_2\text{N})\text{C}(\text{S})_2$ ] $_2$ , tetramethyl-
U409	23564-05-8	Thiophanate-methyl
U219	62-56-6	Thiourea
U244	137-26-8	Thiram
U220	108-88-3	Toluene
U221	25376-45-8	Toluenediamine
U223	26471-62-5	Toluene diisocyanate (R,T)
U328	95-53-4	o-Toluidine
U353	106-49-0	p-Toluidine
U222	636-21-5	o-Toluidine hydrochloride
U389	2303-17-5	Triallate
U011	61-82-5	1H-1,2,4-Triazol-3-amine
U227	79-00-5	1,1,2-Trichloroethane
U228	79-01-6	Trichloroethylene
U121	75-69-4	Trichloromonofluoromethane
See F027	95-95-4	2,4,5-Trichlorophenol
See F027	88-06-2	2,4,6-Trichlorophenol
U404	121-44-8	Triethylamine
U234	99-35-4	1,3,5-Trinitrobenzene (R,T)
U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-
U235	126-72-7	Tris(2,3-dibromopropyl) phosphate
U236	72-57-1	Trypan blue
U237	66-75-1	Uracil mustard
U176	759-73-9	Urea, N-ethyl-N-nitroso-
U177	684-93-5	Urea, N-methyl-N-nitroso-
U043	75-01-4	Vinyl chloride
U248	P 81-81-2	Warfarin, and salts, when present at concentrations of 0.3% or less

U239	1330-20-7	Xylene (I)
U200	50-55-5	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester, (3 $\beta$ ,16 $\beta$ ,17 $\alpha$ ,18 $\beta$ ,20 $\alpha$ )-
U249	1314-84-7	Zinc phosphide Zn <sub>3</sub> P <sub>2</sub> , when present at concentrations of 10% or less

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### Section 721.Appendix H Hazardous Constituents

Common Name	Chemical Abstracts Name	Chemical Abstracts Number	Hazardous Waste Number
A2213	Ethanimidothioic acid, 2- (dimethylamino)-N-hydroxy-2-oxo-, methyl ester	30558-43-1	U394
Acetonitrile	Same	75-05-8	U003
Acetophenone	Ethanone, 1-phenyl-	98-86-2	U004
2-Acetylaminofluorene	Acetamide, N-9H-fluoren-2-yl-	53-96-3	U005U 005
Acetyl chloride	Same	75-36-5	U006
1-Acetyl-2-thiourea	Acetamide, N-(aminothioxomethyl)-	591-08-2	P002
Acrolein	2-Propenal	107-02-8	P003
Acrylamide	2-Propenamamide	79-06-1	U007
Acrylonitrile	2-Propenenitrile	107-13-1	U009
Aflatoxins	Same	1402-68-2	
Aldicarb	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime	116-06-3	P070
Aldicarb sulfone	Propanal, 2-methyl-2-(methylsulfonyl)-, O-[(methylamino)-carbonyl]oxime	1646-88-4	P203
Aldrin	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-	309-00-2	P004

	1,4,4a,5,8,8a-hexahydro-, (1- <b>alpha</b> ,4- <b>alpha</b> ,4a- <b>beta</b> ,5- <b>alpha</b> ,8- <b>alpha</b> ,8a- <b>beta</b> )-		
Allyl alcohol	2-Propen-1-ol	107-18-6	P005
Allyl chloride	1-Propene, 3-chloro-	107-18-6	
Aluminum phosphide	Same	20859-73-8	P006
4-Aminobiphenyl	[1,1'-Biphenyl]-4-amine	92-67-1	
5-(Aminomethyl)-3-isoxazolol	3(2H)-Isoxazolone, 5-(aminomethyl)-	2763-96-4	P007
4-Aminopyridine	4-Pyridinamine	504-24-5	P008
Amitrole	1H-1,2,4-Triazol-3-amine	61-82-5	U011
Ammonium vanadate	Vanadic acid, ammonium salt	7803-55-6	U119
Aniline	Benzenamine	62-53-3	U012
Antimony	Same	7440-36-0	
Antimony compounds, N.O.S. (not otherwise specified)			
Aramite	Sulfurous acid, 2-chloroethyl-, 2-[4-(1,1-dimethylethyl)-phenoxy]-1-methylethyl ester	140-57-8	
Arsenic	Arsenic	7440-38-2	
Arsenic compounds, N.O.S.			
Arsenic acid	Arsenic acid H <sub>3</sub> AsO <sub>4</sub>	7778-39-4	P010
Arsenic pentoxide	Arsenic oxide As <sub>2</sub> O <sub>5</sub>	1303-28-2	<b>P011P</b> <b>011</b>
Arsenic trioxide	Arsenic oxide As <sub>2</sub> O <sub>3</sub>	1327-53-3	P012
Auramine	Benzenamine, 4,4'-carbonimidoylbis[N, N-dimethyl-	492-80-8	U014
Azaserine	L-Serine, diazoacetate (ester)	115-02-6	U015
Barban	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester	101-27-9	U280
Barium	Same	7440-39-3	
Barium compounds, N.O.S.			
Barium cyanide	Same	542-62-1	P013
Bendiocarb	1,3-Benzodioxol-4-ol-	22781-	U278

	2,2-dimethyl-, methyl carbamate	23-3	
Bendiocarb phenol	1,3-Benzodioxol-4-ol-	22961-	U364
	2,2-dimethyl-,	82-6	
Benomyl	Carbamic acid, [1-(butylamino)-carbonyl]-1H-benzimidazol-2-yl]-, methyl ester	17804-35-2	U271
Benz[c]acridine	Same	225-51-4	U016
Benz[a]anthracene	Same	56-55-3	U018
Benzal chloride	Benzene, (dichloromethyl)-	98-87-3	U017
Benzene	Same	71-43-2	U018
Benzenearsonic acid	Arsonic acid, phenyl-	98-05-5	
Benzidine	[1,1'-Biphenyl]-4,4'-diamine	92-87-5	U021
Benzo[b]fluoranthene	Benz[e]acephenanthrylene	205-99-2	
Benzo[j]fluoranthene	Same	205-82-3	
Benzo(k)fluoranthene	Same	207-08-9	
Benzo[a]pyrene	Same	50-32-8	U022
p-Benzoquinone	2,5-Cyclohexadiene-1,4-dione	106-51-4	U197
Benzotrichloride	Benzene, (trichloromethyl)-	98-07-7	U023
Benzyl chloride	Benzene, (chloromethyl)-	100-44-7	P028
Beryllium powder	Same	7440-41-7	P015
Beryllium compounds, N.O.S.			
Bis(pentamethylene)-thiuram tetrasulfide	Piperidine, 1,1'-(tetrathiodicarbonyl)-bis-	120-54-7	
Bromoacetone	2-Propanone, 1-bromo-	598-31-2	P017
Bromoform	Methane, tribromo-	75-25-2	U225
4-Bromophenyl phenyl ether	Benzene, 1-bromo-4-phenoxy-	101-55-3	U030
Brucine	Strychnidin-10-one, 2,3-dimethoxy-	357-57-3	P018
Butylate	Carbamothioic acid, bis(2-methylpropyl)-, S-ethyl ester	2008-41-5	
Butyl benzyl phthalate	1,2-Benzenedicarboxylic acid, butyl phenylmethyl ester	85-68-7	
Cacodylic acid	Arsenic acid, dimethyl-	75-60-5	U136
Cadmium	Same	7440-43-9	

Cadmium compounds, N.O.S.			
Calcium chromate	Chromic acid $H_2CrO_4$ , calcium salt	13765- 19-0	U032
Calcium cyanide	Calcium cyanide $Ca(CN)_2$	592-01-8	P021
Carbaryl	1-Naphthalenol, methylcarbamate	63-25-2	U279
Carbendazim	Carbamic acid, 1H- benzimidazol-2-yl, methyl ester	10605- 21-7	U372
Carbofuran	7-Benzofuranol, 2,3- dihydro-2,2-dimethyl-, methylcarbamate	1563-66- 2	P127
Carbofuran phenol	7-Benzofuranol, 2,3- dihydro-2,2-dimethyl-	1563-38- 8	U367
Carbosulfan	Carbamic acid, [(dibutylamino)thio] methyl-, 2,3-dihydro- 2,2-dimethyl-7-benzo- furanylester	55285- 14-8	P189
Carbon disulfide	Same	75-15-0	P022
Carbon oxyfluoride	Carbonic difluoride	353-50-4	U033
Carbon tetrachloride	Methane, tetrachloro-	56-23-5	U211
Chloral	Acetaldehyde, trichloro-	75-87-6	U034
Chlorambucil	Benzenebutanoic acid, 4[bis-(2-chloroethyl)- amino]-	305-03-3	U035
Chlordane	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octa- chloro-2,3,3a,4,7,7a- hexahydro-	57-74-9	U036
Chlordane, <b>alpha</b> and <b>gamma</b> isomers			U036
Chlorinated benzenes, N.O.S.			
Chlorinated ethane, N.O.S.			
Chlorinated fluorocarbons, N.O.S.			
Chlorinated naphthalene, N.O.S.			
Chlorinated phenol, N.O.S.			
Chlornaphazine	Naphthalenamine, N,N'- bis(2-chloroethyl)-	494-03-1	U026
Chloroacetaldehyde	Acetaldehyde, chloro-	107-20-0	P023
Chloroalkyl ethers, N.O.S.			
p-Chloroaniline	Benzenamine, 4-chloro-	106-47-8	P024
Chlorobenzene	Benzene, chloro-	108-90-7	U037

Chlorobenzilate	Benzeneacetic acid, 4-chloro- <b>alpha</b> -(4-chlorophenyl)- <b>alpha</b> -hydroxy-, ethyl ester	510-15-6	U038
p-Chloro-m-cresol	Phenol, 4-chloro-3-methyl-	59-50-7	U039
2-Chloroethyl vinyl ether	Ethene, (2-chloroethoxy)-	110-75-8	U042
Chloroform	Methane, trichloro-	67-66-3	U044
Chloromethyl methyl ether	Methane, chloromethoxy-	107-30-2	U046
<b>beta</b> -Chloronaphthalene	Naphthalene, 2-chloro-	91-58-7	U047
o-Chlorophenol	Phenol, 2-chloro-	95-57-8	U048
1-(o-Chloro-phenyl)thiourea	Thiourea, (2-chloro-phenyl)-	5344-82-1	P026
Chloroprene	1,3-Butadiene, 2-chloro-	126-99-8	
3-Chloropropionitrile	Propanenitrile, 3-chloro-	542-76-7	P027
Chromium	Same	7440-47-3	
Chromium compounds, N.O.S.			
Chrysene	Same	218-01-9	U050
Citrus red No. 2	2-Naphthalenol, 1-[(2,5-dimethoxy-phenyl)azo]-	6358-53-8	
Coal tar creosote	Same	8007-45-2	
Copper cyanide	Copper cyanide CuCN	544-92-3	P029
Copper dimethyldithiocarbamate	Copper, bis(dimethyl-carbamodithioato-S,S')-,	137-29-1	
Creosote	Same		U051
Cresols (Cresylic acid)	Phenol, methyl-	1319-77-3	U052
Crotonaldehyde	2-Butenal	4170-30-3	U053
m-Cumenyl methylcarbamate	Phenol, 3-(methyl-ethyl)-, methyl carbamate	64-00-6	P202
Cyanides (soluble salts and complexes), N.O.S.			P030
Cyanogen	Ethanedinitrile	460-19-5	P031
Cyanogen bromide	Cyanogen bromide (CN)Br	506-68-3	U246
Cyanogen chloride	Cyanogen chloride (CN)Cl	506-77-4	P033
Cycasin	<b>Beta</b> -D-glucopyranoside, (methyl-ONN-	14901-08-7	

Cycloate	azoxy)methyl- Carbamothioic acid, cyclohexylethyl-, S- ethyl ester	1134-23- 2	
2-Cyclohexyl-4,6-dinitro- phenol	Phenol, 2-cyclohexyl- 4,6-dinitro-	131-89-5	P034
Cyclophosphamide	2H-1,3,2- Oxazaphosphorin-2- amine, N,N-bis(2- chloro- ethyl)tetrahydro-, 2- oxide	50-18-0	U058
2,4-D	Acetic acid, (2,4- dichlorophenoxy)-	94-75-7	U240
2,4-D, salts and esters	Acetic acid, (2,4- dichlorophenoxy)-, salts and esters		U240
Daunomycin	5, 12- Naphthacenedione, 8- acetyl-10-[(3-amino- 2,3,6-trideoxy- <b>alpha</b> -L-lyxo-hexo- pyranosyl)oxy]- 7,8,9,10-tetrahydro- 6,8,11-trihydroxy-l- methoxy-, 8S-cis)-	20830- 81-3	U059
Dazomet	2H-1,3,5-thiadiazine- 2-thione, tetrahydro- 3,5-dimethyl	533-74-4	
DDD	Benzene, 1,1'-(2,2- dichloroethyl- idene)bis[4-chloro-	72-54-8	U060
DDE	Benzene, 1,1'- (dichloroethenyl- idene)bis[4-chloro-	72-55-9	
DDT	Benzene, 1,1'-(2,2,2- trichloro- ethylidene)bis[4- chloro-	50-29-3	U061
Diallate	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-pro- penyl) ester	2303-16- 4	U062
Dibenz[a,h]acridine	Same	226-36-8	
Dibenz[a,j]acridine	Same	224-42-0	
Dibenz[a,h]anthracene	Same	53-70-3	U063
7H-Dibenzo[c,g]carbazole	Same	194-59-2	
Dibenzo[a,e]pyrene	Naphtho[1,2,3,4-def]- chrysene	192-65-4	
Dibenzo[a,h]pyrene	Dibenzo[b,def]chrysene	189-64-0	
Dibenzo[a,i]pyrene	Benzo[rst]pentaphene	189-55-9	U064

1,2-Dibromo-3-chloropropane	Propane, 1,2-dibromo-3-chloro-	96-12-8	U066
Dibutyl phthalate	1,2-Benzenedicarboxylic acid, dibutyl ester	84-74-2	U069
o-Dichlorobenzene	Benzene, 1,2-dichloro-	95-50-1	U070
m-Dichlorobenzene	Benzene, 1,3-dichloro-	541-73-1	U071
p-Dichlorobenzene	Benzene, 1,4-dichloro-	106-46-7	U072
Dichlorobenzene, N.O.S.	Benzene, dichloro-	25321-22-6	
3,3'-Dichlorobenzidine	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-	91-94-1	U073
1,4-Dichloro-2-butene	2-Butene, 1,4-dichloro-	764-41-0	U074
Dichlorodifluoromethane	Methane, dichlorodifluoro-	75-71-8	U075
Dichloroethylene, N.O.S.	Dichloroethylene	25323-30-2	
1,1-Dichloroethylene	Ethene, 1,1-dichloro-	75-35-4	U078
1,2-Dichloroethylene	Ethene, 1,2-dichloro-, (E)-	156-60-5	U079
Dichloroethyl ether	Ethane, 1,1'-oxybis[2-chloro-	111-44-4	U025
Dichloroisopropyl ether	Propane, 2,2'-oxybis[2-chloro-	108-60-1	U027
Dichloromethoxyethane	Ethane, 1,1'-[methylenebis(oxy)bis[2-chloro-	111-91-1	U024
Dichloromethyl ether	Methane, oxybis[chloro-	542-88-1	P016
2,4-Dichlorophenol	Phenol, 2,4-dichloro-	120-83-2	U081
2,6-Dichlorophenol	Phenol, 2,6-dichloro-	87-65-0	U082
Dichlorophenylarsine	Arsonous dichloride, phenyl-	696-28-6	P036
Dichloropropane, N.O.S.	Propane, dichloro-	26638-19-7	
Dichloropropanol, N.O.S.	Propanol, dichloro-	26545-73-3	
Dichloropropene, N.O.S.	1-Propene, dichloro-	26952-23-8	
1,3-Dichloropropene	1-Propene, 1,3-dichloro-	542-75-6	U084
Dieldrin	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6, 6a,7,7a-octahydro-, (1a $\alpha$ , 2 $\beta$ , 2a $\alpha$ , 3 $\alpha$ , 3 $\beta$ , 6 $\beta$ , 6a $\alpha$ )	60-57-1	P037

1,2:3,4-Diepoxybutane	phac, 7beta, 7aalpha)- 2,2'-Bioxirane	1464-53- U085 5
Diethylarsine	Arsine, diethyl-	692-42-2 P038
Diethylene glycol, dicarbamate	Ethanol, 2,2'-oxybis-, dicarbamate	5952-26- U395 1
1,4-Diethyleneoxide	1,4-Dioxane	123-91-1 U108
Diethylhexyl phthalate	1,2- Benzenedicarboxylic acid, bis(2- ethylhexyl) ester	117-81-7 U028
N,N'-Diethylhydrazine	Hydrazine, 1,2- diethyl-	1615-80- U086 1
O,O-Diethyl-S-methyl dithiophosphate	Phosphorodithioic acid, O,O-diethyl S- methyl ester	3288-58- U087 2
Diethyl-p-nitrophenyl phosphate	Phosphoric acid, diethyl 4-nitrophenyl ester	311-45-5 P041
Diethyl phthalate	1,2- Benzenedicarboxylic acid, diethyl ester	84-66-2 U088
O,O-Diethyl O-pyrazinyl phosphorothioate	Phosphorothioic acid, O,O-diethyl O- pyrazinyl ester	297-97-2 P040
Diethylstilbestrol	Phenol, 4,4'-(1,2- diethyl-1,2-ethene- diyl)bis-, (E)-	56-53-1 U089
Dihydrosafrole	1,3-Benzodioxole, 5- propyl-	94-58-6 U090
Diisopropylfluorophosph- ate (DFP)	Phosphorofluoridic acid, bis(1- methylethyl) ester	55-91-4 P043
Dimethoate	Phosphorodithioic acid, O,O-dimethyl S- [2-(methylamino)-2- oxoethyl] ester	60-51-5 P044
Dimetilan	Carbamic acid, dimethyl-, 1- [(dimethylamino) carbonyl]-5-methyl-1H- pyrazol-3-yl ester	644-64-4 P191
3,3'-Dimethoxybenzidine	[1,1'-Biphenyl]-4,4'- diamine, 3,3'- dimethoxy-	119-90-4 U091
p-Dimethylaminoazobenzene	Benzenamine, N,N- dimethyl-4-(phenyl- azo)-	60-11-7 U093
7,12-Dimethyl- benz[a]anthracene	Benz[a]anthracene, 7,12-dimethyl-	57-97-6 U094
3,3'-Dimethylbenzidine	[1,1'-Biphenyl]-4,4'-	119-93-7 U095

	diamine, 3,3'- dimethyl-		
Dimethylcarbamoyl chloride	Carbamic chloride, dimethyl-	79-44-7	U097
1,1-Dimethylhydrazine	Hydrazine, 1,1- dimethyl-	57-14-7	U098
1,2-Dimethylhydrazine	Hydrazine, 1,2- dimethyl-	540-73-8	U099
<b>alpha</b> , <b>alpha</b> - Dimethylphenethylamine	Benzeneethanamine, <b>alpha</b> , <b>alpha</b> - dimethyl-	122-09-8	P046
2,4-Dimethylphenol	Phenol, 2,4-dimethyl-	105-67-9	U101
Dimethylphthalate	1,2- Benzenedicarboxylic acid, dimethyl ester	131-11-3	U102
Dimethyl sulfate	Sulfuric acid, dimethyl ester	77-78-1	U103
Dinitrobenzene, N.O.S.	Benzene, dinitro-	25154- 54-5	
4,6-Dinitro-o-cresol	Phenol, 2-methyl-4,6- dinitro-	534-52-1	P047
4,6-Dinitro-o-cresol salts			P047
2,4-Dinitrophenol	Phenol, 2,4-dinitro-	51-28-5	P048
2,4-Dinitrotoluene	Benzene, 1-methyl-2,4- dinitro-	121-14-2	U105
2,6-Dinitrotoluene	Benzene, 2-methyl-1,3- dinitro-	606-20-2	U106
Dinoseb	Phenol, 2-(1- methylpropyl)-4,6- dinitro-	88-85-7	P020
Di-n-octyl phthalate	1,2- Benzenedicarboxylic acid, dioctyl ester	117-84-0	U107
Diphenylamine	Benzenamine, N-phenyl-	122-39-4	
1,2-Diphenylhydrazine	Hydrazine, 1,2- diphenyl-	122-66-7	U109
Di-n-propylnitrosamine	1-Propanamine, N- nitroso-N-propyl-	621-64-7	U111
Disulfiram	Thioperoxydicarbonic diamide, tetraethyl	97-77-8	
Disulfoton	Phosphorodithioic acid, O,O-diethyl S- [2-(ethylthio)ethyl] ester	298-04-4	P039
Dithiobiuret	Thioimidodicarbonic diamide [(H <sub>2</sub> N)C(S)] <sub>2</sub> NH	541-53-7	P049
Endosulfan	6, 9-Methano-2,4,3- benzodioxathie- pen,6,7,8,9,10,10- hexachloro-	115-29-7	P050

Endothal	1,5,5a,6,9,9a-hexahydro-, 3-oxide, 7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid	145-73-3	P088
Endrin	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1a $\alpha$ , 2 $\beta$ , 2a $\beta$ , 3 $\alpha$ , 6 $\alpha$ , 6a $\beta$ , 7a $\alpha$ )-,	72-20-8	P051
Endrin metabolites			P051
Epichlorohydrin	Oxirane, (chloromethyl)-	106-89-8	U041
Epinephrine	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-	51-43-4	P042
EPTC	Carbamothioic acid, dipropyl-, S-ethyl ester	759-94-4	
Ethyl carbamate (urethane)	Carbamic acid, ethyl ester	51-79-6	U238
Ethyl cyanide	Propanenitrile	107-12-0	P101
Ethylenebisdithiocarbamic acid	Carbamodithioic acid, 1,2-ethanediylobis-	111-54-6	U114
Ethylenebisdithiocarbamic acid, salts and esters			U114
Ethylene dibromide	Ethane, 1,2-dibromo-	106-93-4	U067
Ethylene dichloride	Ethane, 1,2-dichloro-	107-06-2	
Ethylene glycol monoethyl ether	Ethanol, 2-ethoxy-	110-80-5	U359
Ethyleneimine	Aziridine	151-56-4	P054
Ethylene oxide	Oxirane	75-21-8	U115
Ethylenethiourea	2-Imidazolidinethione	96-45-7	U116
Ethylidene dichloride	Ethane, 1,1-dichloro-	75-34-3	U076
Ethyl methacrylate	2-Propenoic acid, 2-methyl-, ethyl ester	97-63-2	U118
Ethyl methanesulfonate	Methanesulfonic acid, ethyl ester	62-50-0	U119
Ethyl Ziram	Zinc, bis(diethylcarbamodithioato-S,S')-	14324-55-1	U407
Famphur	Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl] O,O-	52-85-7	P097

Ferbam	dimethyl ester Iron, tris(dimethyl- carbamodithioato- S,S')-,	14484- 64-1
Fluoranthene	Same	206-44-0 U120
Fluorine	Same	7782-41- P056 4
Fluoroacetamide	Acetamide, 2-fluoro-	640-19-7 P057
Fluoroacetic acid, sodium salt	Acetic acid, fluoro-, sodium salt	62-74-8 P058
Formaldehyde	Same	50-00-0 U122
Formetanate hydrochloride	Methanimidamide, N,N- dimethyl-N'-[3- [[ (methylamino)- carbonyl]oxy]phenyl]-, monohydrochloride	23422- P198 53-9
Formic acid	Same	64-18-16 U123
Formparanate	Methanimidamide, N,N- dimethyl-N'-[2-methyl- 4-[[ (methylamino)- carbonyl]oxy]phenyl]-	17702- P197 57-7
Glycidylaldehyde	Oxiranecarboxaldehyde	765-34-4 U126
Halomethanes, N.O.S.		
Heptachlor	4,7-Methano-1H- indene, 1,4,5,6,7,8,8- heptachloro-3a,4,7,7a- tetrahydro-	76-44-8 P059
Heptachlor epoxide	2,5-Methano-2H- indeno[1, 2b]oxirene, 2,3,4,5,6,7,7-hepta- chloro- 1a,1b,5,5a,6,6a-hexa- hydro-, (1a $\alpha$ , 1b $\beta$ , 2 $\alpha$ 5 $\alpha$ , 5 $\beta$ , 6 $\beta$ , 6a $\alpha$ )-	1024-57- 3
Heptachlor epoxide ( $\alpha$ , $\beta$ , and $\gamma$ isomers)		
Heptachlorodibenzofurans		
Heptachlorodibenzo-p- dioxins		
Hexachlorobenzene	Benzene, hexachloro-	118-74-1 U127
Hexachlorobutadiene	1,3-Butadiene, 1,1,2,3,4,4-hexa- chloro-	87-68-3 U128
Hexachlorocyclo- pentadiene	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexa- chloro-	77-47-4 U130
Hexachlorodibenzo-p- dioxins		

Hexachlorodibenzofurans			
Hexachloroethane	Ethane, hexachloro-	67-72-1	U131
Hexachlorophene	Phenol, 2,2'- methylenebis[3,4,6- trichloro-	70-30-4	U132
Hexachloropropene	1-Propene, 1,1,2,3,3,3- hexachloro-	1888-71- 7	U243
Hexaethyltetraphosphate	Tetraphosphoric acid, hexaethyl ester	757-58-4	P062
Hydrazine	Same	302-01-2	U133
Hydrogen cyanide	Hydrocyanic acid	74-90-8	P063
Hydrogen fluoride	Hydrofluoric acid	7664-39- 3	U134
Hydrogen sulfide	Hydrogen sulfide <u>H<sub>2</sub>S</u>	7783-06- 4	U135
Indeno[1,2,3-cd]pyrene	Same	193-39-5	U137
3-Iodo-2-propynyl-n- butylcarbamate	Carbamic acid, butyl-, 3-iodo-2-propynyl ester	55406- 53-6	
Isobutyl alcohol	1-Propanol, 2-methyl-	78-83-1	U140
Isodrin	1,4:5,8-Dimethanonaph- thalene, 1,2,3,4,10,10- hexachloro- 1,4,4a,5,8,8a- hexahydro-, (1 $\alpha$ ,4 $\alpha$ ,4 $\beta$ , 5 $\beta$ ,8 $\beta$ ,8 $\beta$ )-,	465-73-6	P060
Isolan	Carbamic acid, dimethyl-, 3-methyl-1- (1-methylethyl)-1H- pyrazol-5-yl ester	119-38-0	P192
Isosafrole	1,3-Benzodioxole, 5- (1-propenyl)-	120-58-1	U141
Kepone	1,3,4-Metheno-2H- cyclobuta[cd]pentalen- 2-one, 1,1a,3,3a,4,5,5,5a,5b, 6-decachlorooctahydro-	143-50-0	U142
Lasiocarpine	2-Butenoic acid, 2- methyl-, 7-[[2,3- dihydroxy-2-(1- methoxyethyl)-3- methyl-1- oxobutoxy]methyl]- 2,3,5,7a-tetrahydro- 1H-pyrrolizin-1-yl ester, [1S-[1- $\alpha$ (Z),7(2S*,3R*),	303-34-1	U143

Lead	7a $\alpha$ ]]- Same	7439-92- 1
Lead and compounds, N.O.S.		
Lead acetate	Acetic acid, lead (2+) salt	301-04-2 U144
Lead phosphate	Phosphoric acid, lead (2+) salt (2:3)	7446-27-7 U145
Lead subacetate	Lead, bis(acetato-O)- tetrahydroxytri-	1335-32-6 U146
Lindane	Cyclohexane, 1,2,3,4,5,6-hexa- chloro-, 1 $\alpha$ ,2 $\alpha$ ,3 $\beta$ , 4 $\alpha$ ,5 $\alpha$ ,6 $\beta$ a $\beta$ )-	58-89-9 U129
Maleic anhydride	2,5-Furandione	108-31-6 U147
Maleic hydrazide	3,6-Pyridazinedione, 1,2-dihydro-	123-33-1 U148
Malononitrile	Propanedinitrile	109-77-3 U149
Manganese dimethyldithio- carbamate	Manganese, bis(dimethylcarbam- odithioato-S,S')-,	15339-36-3 P196
Melphalan	L-Phenylalanine, 4- [bis(2-chloroethyl)- amino]-	148-82-3 U150
Mercury	Same	7439-97-6 U151
Mercury compounds, N.O.S.		
Mercury fulminate	Fulminic acid, mercury (2+) salt	628-86-4 P065
Metam Sodium	Carbamodithioic acid, methyl-, monosodium salt	137-42-8
Methacrylonitrile	2-Propenenitrile, 2- methyl-	126-98-7 U152
Methapyrilene	1,2-Ethanediamine, N,N-dimethyl-N'-2- pyridinyl-N'-(2- thienylmethyl)-	91-80-5 U155
Methiocarb	Phenol, (3,5-dimethyl- 4-(methylthio)-, methylcarbamate	2032-65-7 P199
Metholmyl	Ethanimidothioic acid, N-[[methyl- amino)carbonyl]oxy]-, methyl ester	16752-77-5 P066
Methoxychlor	Benzene, 1,1'-(2,2,2- trichloroethyl- idene)bis[4-methoxy-	72-43-5 U247

Methyl bromide	Methane, bromo-	74-83-9	U029
Methyl chloride	Methane, chloro-	74-87-3	U045
Methylchlorocarbonate	Carbonochloridic acid, methyl ester	79-22-1	U156
Methyl chloroform	Ethane, 1,1,1-trichloro-	71-55-6	U226
3-Methylcholanthrene	Benz[ <i>j</i> ]aceanthrylene, 1,2-dihydro-3-methyl-	56-49-5	U157
4,4'-Methylenebis(2-chloroaniline)	Benzenamine, 4,4'-methylenebis[2-chloro-	101-14-4	U158
Methylene bromide	Methane, dibromo-	74-95-3	U068
Methylene chloride	Methane, dichloro-	75-09-2	U080
Methyl ethyl ketone (MEK)	2-Butanone	78-93-3	U159
Methyl ethyl ketone peroxide	2-Butanone, peroxide	1338-23-4	U160
Methyl hydrazine	Hydrazine, methyl-	60-34-4	P068
Methyl iodide	Methane, iodo-	74-88-4	U138
Methyl isocyanate	Methane, isocyanato-	624-83-9	P064
2-Methylactonitrile	Propanenitrile, 2-hydroxy-2-methyl-	75-86-5	P069
Methyl methacrylate	2-Propenoic acid, 2-methyl-, methyl ester	80-62-6	U162
Methyl methanesulfonate	Methanesulfonic acid, methyl ester	66-27-3	
Methyl parathion	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester	298-00-0	P071
Methylthiouracil	4-(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thio-	56-04-2	U164
Metolcarb	Carbamic acid, methyl-, 3-methylphenyl ester	1129-41-5	P190
Mexacarbate	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)	315-18-4	P128
Mitomycin C	Azirino[2', 3':3, 4]pyrrolo[1, 2-a]indole-4, 7-dione, 6-amino-8-[[amino-carbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1a-S-(1a $\alpha$ , 8 $\beta$ , 8a $\alpha$ , 8b $\alpha$ )]-,	50-07-7	U010
Molinate	1H-Azepine-1-carbothioic acid, hexahydro-, S-ethyl ester	2212-67-1	
MNNG	Guanidine, N-methyl-	70-25-7	U163

Mustard gas	N'-nitro-N-nitroso- Ethane, 1,1'- thiobis[2-chloro-	505-60-2	U165
Naphthalene	Same	91-20-3	U165
1,4-Naphthoquinone	1,4-Naphthalenedione	130-15-4	U166
<u>alpha</u> -Naphthylamine	1-Naphthalenamine	134-32-7	U167
<u>beta</u> -Naphthylamine	2-Naphthalenamine	91-59-8	U168
<u>alpha</u> -Naphthylthiourea	Thiourea, 1- naphthalenyl-	86-88-4	P072
Nickel	Same	7440-02- 0	
Nickel compounds, N.O.S.			
Nickel carbonyl	Nickel carbonyl Ni(CO) <sub>4</sub> , (T-4)-	13463- 39-3	P073
Nickel cyanide	Nickel cyanide Ni(CN) <sub>2</sub>	557-19-7	P074
Nicotine	Pyridine, 3-(1-methyl- 2-pyrrolidinyl)-, (S)-	54-11-5	P075
Nicotine salts			P075
Nitric oxide	Nitrogen oxide NO	10102- 43-9	P076
p-Nitroaniline	Benzenamine, 4-nitro-	100-01-6	P077
Nitrobenzene	Benzene, nitro-	98-95-3	P078
Nitrogen dioxide	Nitrogen oxide NO <sub>2</sub>	10102- 44-0	P078
Nitrogen mustard	Ethanamine, 2-chloro- N-(2-chloroethyl)-N- methyl-	51-75-2	
Nitrogen mustard, hydro- chloride salt			
Nitrogen mustard N-oxide	Ethanamine, 2-chloro- N-(2-chloroethyl)-N- methyl-, N-oxide	126-85-2	
Nitrogen mustard, N- oxide, hydrochloride salt			
Nitroglycerin	1,2,3-Propanetriol, trinitrate	55-63-0	P081
p-Nitrophenol	Phenol, 4-nitro-	100-02-7	U170
2-Nitropropane	Propane, 2-nitro-	79-46-9	U171
Nitrosamines, N.O.S.		35576- 91-1	
N-Nitrosodi-n-butylamine	1-Butanamine, N-butyl- N-nitroso-	924-16-3	U172
N-Nitrosodiethanolamine	Ethanol, 2,2'- (nitrosoimino)bis-	1116-54- 7	U173
N-Nitrosodiethylamine	Ethanamine, N-ethyl-N- nitroso-	55-18-5	U174
N-Nitrosodimethylamine	Methanamine, N-methyl- N-nitroso-	62-75-9	P082
N-Nitroso-N-ethylurea	Urea, N-ethyl-N- nitroso-	759-73-9	U176
N-Nitrosomethylethylamine	Ethanamine, N-methyl-	10595-	

N-Nitroso-N-methylurea	N-nitroso- Urea, N-methyl-N-nitroso-	95-6 684-93-5	U177
N-Nitroso-N-methylurethane	Carbamic acid, methylnitroso-, ethyl ester	615-53-2	U178
N-Nitrosomethylvinylamine	Vinylamine, N-methyl-N-nitroso-	4549-40-0	P084
N-Nitrosomorpholine	Morpholine, 4-nitroso-	59-89-2	
N-Nitrosornicotine	Pyridine, 3-(1-nitroso-2-pyrrolidinyl)-, (S)-	16543-55-8	
N-Nitrosopiperidine	Piperidine, 1-nitroso-	100-75-4	U179
N-Nitrosopyrrolidine	Pyrrolidine, 1-nitroso-	930-55-2	U180
N-Nitrososarcosine	Glycine, N-methyl-N-nitroso-	13256-22-9	
5-Nitro-o-toluidine	Benzenamine, 2-methyl-5-nitro-	99-55-8	U181
Octamethylpyrophosphoramide	Diphosphoramidate, octamethyl-	152-16-9	P085
Osmium tetroxide	Osmium oxide OsO <sub>4</sub> , (T-4)	20816-12-0	P087
Oxamyl	Ethanimidothioc acid, 2-(dimethylamino)-N-[[methylamino]-carbonyl]oxy]-2-oxo-, methyl ester	23135-22-0	P194
Paraldehyde	1,3,5-Trioxane, 2,4,6-trimethyl-	123-63-7	U182
Parathion	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester	56-38-2	P089
Pebulate	Carbamothioic acid, butylethyl-, S-propyl ester	1114-71-2	
Pentachlorobenzene	Benzene, pentachloro-	608-93-5	U183
Pentachlorodibenzo-p-dioxins			
Pentachlorodibenzofurans			
Pentachloroethane	Ethane, pentachloro-	76-01-7	U184
Pentachloronitrobenzene (PCNB)	Benzene, pentachloronitro-	82-68-8	U185
Pentachlorophenol	Phenol, pentachloro-	87-86-5	See F027
Phenacetin	Acetamide, N-(4-ethoxyphenyl)-	62-44-2	U187
Phenol	Same	108-95-2	U188
Phenylenediamine	Benzenediamine	25265-76-3	
Phenylmercury acetate	Mercury, (acetato-O)phenyl-	62-38-4	P092

Phenylthiourea	Thiourea, phenyl-	103-85-5	P093
Phosgene	Carbonic dichloride	75-44-5	P095
Phosphine	Same	7803-51-	P096
		2	
Phorate	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester	298-02-2	P094
Phthalic acid esters, N.O.S.			
Phthalic anhydride	1,3-Isobenzofurandione	85-44-9	U190
Physostigmine	Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methyl-carbamate (ester), (3aS-cis)-	57-47-6	P204
Physostigmine salicylate	Benzoic acid, 2-hydroxy-, compound with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo[2,3-b]indol-5-yl methyl-carbamate ester (1:1)	57-64-7	P188
2-Picoline	Pyridine, 2-methyl-	109-06-8	U191
Polychlorinated biphenyls, N.O.S.			
Potassium cyanide	Same	151-50-8	P098
Potassium dimethyldithio-carbamate	Carbamodithioc acid, dimethyl, potassium salt	128-03-0	
Potassium n-hydroxymethyl-n-methyl-dithio-carbamate	Carbamodithioc acid, (hydroxymethyl)methyl-, monopotassium salt	51026-28-9	
Potassium n-methyldithio-carbamate	Carbamodithioc acid, methyl-monopotassium salt	137-41-7	
Potassium silver cyanide	Argentate(1-), bis(cyano-C)-, potassium)	506-61-6	P099
Potassium pentachlorophenate	Pentachlorophenol, potassium salt	7778736	None
Promecarb	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate	2631-37-0	P201
Pronamide	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-	23950-58-5	U192
1,3-Propane sultone	1,2-Oxathiolane, 2,2-dioxide	1120-71-4	U193
Propham	Carbamic acid, phenyl-	122-42-9	U373

Propoxur	, 1-methylethyl ester Phenol, 2-(1-methyl-ethoxy)-, methyl-carbamate	114-26-1	U411
n-Propylamine	1-Propanamine	107-10-8	U194
Propargyl alcohol	2-Propyn-1-ol	107-19-7	P102
Propylene dichloride	Propane, 1,2-dichloro-	78-87-5	U083
1,2-Propylenimine	Aziridine, 2-methyl-	75-55-8	P067
Propylthiouracil	4(1H)-Pyrimidinone, 2,3-dihydro-6-propyl-2-thio-	51-52-5	
Prosulfocarb	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester	52888-80-9	U387
Pyridine	Same	110-86-1	U196
Reserpine	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester, (3 $\beta$ ,16 $\beta$ ,17 $\alpha$ ,18 $\beta$ ,20 $\alpha$ )-,	50-55-5	U200
Resorcinol	1,3-Benzenediol	108-46-3	U201
Saccharin	1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide	81-07-2	U202
Saccharin salts			U202
Safrole	1,3-Benzodioxole, 5-(2-propenyl)-	94-59-7	U203
Selenium	Same	7782-49-2	
Selenium compounds, N.O.S.			
Selenium dioxide	Selenious acid	7783-00-8	U204
Selenium sulfide	Selenium sulfide SeS <sub>2</sub>	7488-56-4	U205
Selenium, tetrakis-(dimethyl-dithiocarbamate)	Carbamodithioic acid, dimethyl-, tetra-anhydrosulfide with orthothioselenious acid	144-34-3	
Selenourea	Same	630-10-4	P103
Silver	Same	7440-22-4	
Silver compounds, N.O.S.			
Silver cyanide	Silver cyanide AgCN	506-64-9	P104
Silvex (2,4,5-TP)	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-	93-72-1	See F027
Sodium cyanide	Sodium cyanide NaCN	143-33-9	P106
Sodium dibutyldithio-	Carbamodithioic acid,	136-30-1	

carbamate	dibutyl-, sodium salt		
Sodium diethyldithio- carbamate	Carbamodithioic acid, diethyl-, sodium salt	148-18-5	
Sodium dimethyldithio- carbamate	Carbamodithioic acid, dimethyl-, sodium salt	128-04-1	
Sodium pentachlorophenate	Pentachlorophenol, sodium salt	131522	None
Streptozotocin	D-Glucose, 2-deoxy-2- [[methylnitroso- amino)carbonyl]amino]-	18883- 66-4	U206
Strychnine	Strychnidin-10-one	57-24-9	P108
Strychnine salts			P108
Sulfallate	Carbamodithioic acid, diethyl-, 2-chloro-2- propenyl ester	95-06-7	
TCDD	Dibenzo[b,e][1,4]dioxi n, 2,3,7,8- tetrachloro-	1746-01- 6	
Tetrabutylthiuram disulfide	Thioperoxydicarbonic diamide, tetrabutyl	1634-02- 2	
Tetramethylthiuram monosulfide	Bis(dimethylthio- carbamoyl) sulfide	97-74-5	
1,2,4,5-Tetrachlo- robenzene	Benzene, 1,2,4,5- tetrachloro-	95-94-3	U207
Tetrachlorodibenzo-p- dioxins			
Tetrachlorodibenzofurans			
Tetrachloroethane, N.O.S.	Ethane, tetrachloro-, N.O.S.	25322- 20-7	
1,1,1,2-Tetrachloroethane	Ethane, 1,1,1,2- tetrachloro-	630-20-6	U208
1,1,2,2-Tetrachloroethane	Ethane, 1,1,2,2- tetrachloro-	79-34-5	U209
Tetrachloroethylene	Ethene, tetrachloro-	127-18-4	U210
2,3,4,6-Tetrachlorophenol	Phenol, 2,3,4,6- tetrachloro-	58-90-2	See F027
2,3,4,6-Tetrachloro- phenol, potassium salt	Same	53535276	None
2,3,4,6-Tetrachloro- phenol, sodium salt	Same	25567559	None
Tetraethyldithiopyrophos- phate	Thiodiphosphoric acid, tetraethyl ester	3689-24- 5	P109
Tetraethyl lead	Plumbane, tetraethyl-	78-00-2	P110
Tetraethylpyrophosphate	Diphosphoric acid, tetraethyl ester	107-49-3	P111
Tetranitromethane	Methane, tetranitro-	509-14-8	P112
Thallium	Same	7440-28- 0	
Thallium compounds			
Thallic oxide	Thallium oxide Tl <sub>2</sub> O <sub>3</sub>	1314-32- 5	P113
Thallium (I) acetate	Acetic acid, thallium	563-68-8	U214

	(1+) salt		
Thallium (I) carbonate	Carbonic acid, dithallium (1+) salt	6533-73- 9	U215
Thallium (I) chloride	Thallium chloride TlCl	7791-12- 0	U216
Thallium (I) nitrate	Nitric acid, thallium (1+) salt	10102- 45-1	U217
Thallium selenite	Selenious acid, dithallium (1+) salt	12039- 52-0	P114
Thallium (I) sulfate	Sulfuric acid, dithallium (1+) salt	7446-18- 6	P115
Thioacetamide	Ethanethioamide	62-55-5	U218
Thiodicarb	Ethanimidothioic acid, N,N'-[thiobis[(methyl- imino)carbonyloxy]]- bis-, dimethyl ester	59669- 26-0	U410
Thiofanox	2-Butanone, 3,3- dimethyl-1-(methyl- thio)-, O- [(methylamino)carbonyl ]oxime	39196- 18-4	P045
Thiophanate-methyl	Carbamic acid, [1,2- phenylenebis(imino- carbonothioyl)]-bis-, dimethyl ester	23564- 05-8	U409
Thiomethanol	Methanethiol	74-93-1	U153
Thiophenol	Benzenethiol	108-98-5	P014
Thiosemicarbazide	Hydrazinecarbothioamid e	79-19-6	P116
Thiourea	Same	62-56-6	P219
Thiram	Thioperoxydicarbonic diamide [(H <sub>2</sub> N)C(S)] <sub>2</sub> S <sub>2</sub> , tetramethyl-	137-26-8	U244
Tirpate	1,3-Dithiolane-2- carboxaldehyde, 2,4- dimethyl-, O-[(methyl- amino)carbonyl] oxime	26419- 73-8	P185
Toluene	Benzene, methyl-	108-88-3	U220
Toluenediamine	Benzenediamine, ar- methyl-	25376- 45-8	U221
Toluene-2,4-diamine	1,3-Benzenediamine, 4- methyl-	95-80-7	
Toluene-2,6-diamine	1,3-Benzenediamine, 2- methyl-	823-40-5	
Toluene-3,4-diamine	1,2-Benzenediamine, 4- methyl-	496-72-0	
Toluene diisocyanate	Benzene, 1,3- diisocyanatomethyl-	26471- 62-5	U223
o-Toluidine	Benzenamine, 2-methyl-	95-53-4	U328
o-Toluidine hydrochloride	Benzenamine, 2- methyl-, hydrochloride	636-21-5	U222
p-Toluidine	Benzenamine, 4-methyl-	106-49-0	U353

Toxaphene	Same	8001-35- 2	P123
Triallate	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2- propenyl) ester	2303-17- 5	U389
1,2,4-Trichlorobenzene	Benzene, 1,2,4- trichloro-	120-82-1	
1,1,2-Trichloroethane	Ethane, 1,1,2- trichloro-	79-00-5	U227
Trichloroethylene	Ethene, trichloro-	79-01-6	U228
Trichloromethanethiol	Methanethiol, trichloro-	75-70-7	P118
Trichloromonofluoro- methane	Methane, trichlorofluoro-	75-69-4	U121
2,4,5-Trichlorophenol	Phenol, 2,4,5- trichloro-	95-95-4	See F027
2,4,6-Trichlorophenol	Phenol, 2,4,6- trichloro-	88-06-2	See F027
2,4,5-T	Acetic acid, (2,4,5- trichlorophenoxy)-	93-76-5	See F027
Trichloropropane, N.O.S.		25735- 29-9	
1,2,3-Trichloropropane	Propane, 1,2,3- trichloro-	96-18-4	
Triethylamine	Ethanamine, N,N- diethyl-	121-44-8	U404
O,O,O-Triethylphosphoro- thioate	Phosphorothioic acid, O,O,O-triethyl ester	126-68-1	
1,3,5-Trinitrobenzene	Benzene, 1,3,5- trinitro-	99-35-4	U234
Tris(1-aziridinyl)- phosphine sulfide	Aziridine, 1,1',1''- phosphinothioylidyne- tris-	52-24-4	
Tris(2,3-dibromopropyl) phosphate	1-Propanol, 2,3- dibromo-, phosphate (3:1)	126-72-7	U235
Trypan blue	2,7- Naphthalenedisulfonic acid, 3,3'-[(3,3'- dimethyl[1,1'- biphenyl]-4,4'-diyl)- bis(azo)]bis[5-amino- 4-hydroxy-, tetrasodium salt	72-57-1	U236
Uracil mustard	2,4-(1H,3H)- Pyrimidinedione, 5- [bis(2- chloroethyl)amino]-	66-75-1	U237
Vanadium pentoxide	Vanadium oxide V <sub>2</sub> O <sub>5</sub>	1314-62- 1	P120
Vernolate	Carbamothioc acid,	1929-77-	

	dipropyl-, S-propyl ester	7	
Vinyl chloride	Ethene, chloro-	75-01-4	U043
Warfarin	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, when present at concentrations less than 0.3%	81-81-2	U248
Warfarin	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, when present at concentrations greater than 0.3%	81-81-2	P001
Warfarin salts, when present at concentrations less than 0.3%			U248
Warfarin salts, when present at concentrations greater than 0.3%			P001
Zinc cyanide	Zinc cyanide $Zn(CN)_2$	557-21-1	P121
Zinc phosphide	Zinc phosphide $P_2Zn_3$ , when present at concentrations greater than 10%	1314-84-7	P122
Zinc phosphide	Zinc phosphide $P_2Zn_3$ , when present at concentrations of 10% or less	1314-84-7	U249
Ziram	Zinc, bis(dimethyl-carbamodithioato-S,S')- (T-4)-	137-30-4	P205

Note: The abbreviation N.O.S. (not otherwise specified) signifies those members of the general class not specifically listed by name in this Section.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 721.Appendix Z Table to Section 721.102

	Table			
	*1	*2	*3	*4
Spent materials	Yes	Yes	Yes	Yes

Sludges (listed in Section 721.131 or 721.132)	Yes	Yes	Yes	Yes
Sludges exhibiting a characteristic of hazardous waste	Yes	Yes	No	Yes
By-products (listed in Section 721.131 or 721.132)	Yes	Yes	Yes	Yes
By-products exhibiting a characteristic of hazardous waste	Yes	Yes	No	Yes
Commercial chemical products listed in Section 721.133	Yes	Yes	No	No
Scrap metal <u>other than excluded scrap metal (see Section 721.101(c)(9))</u>	Yes	Yes	Yes	Yes

Yes - Defined as a solid waste  
 No - Not defined as a solid waste

- \*1 - Use constituting disposal (Section 721.102(c)(1))
- \*2 - Burning for energy recovery or use to produce a fuel (Section 721.102(c)(2))
- \*3 - Reclamation (Section 721.102(c)(3))
- \*4 - Speculative accumulation (Section 721.102(c)(4))

BOARD NOTE: Derived from Table 1 to 40 CFR 261.2(c)(4) (19947). The terms "spent materials", "sludges", "by-products", and "scrap metal" and "processed scrap metal" are defined in Section 721.101.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

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

PART 722  
 STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE

## SUBPART A: GENERAL

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722.110 Purpose, Scope and Applicability  
722.111 Hazardous Waste Determination  
722.112 USEPA Identification Numbers

## SUBPART B: THE MANIFEST

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722.120 General Requirements  
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722.123 Use of the Manifest

## SUBPART C: PRE-TRANSPORT REQUIREMENTS

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722.130 Packaging  
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## SUBPART D: RECORDKEEPING AND REPORTING

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722.140 Recordkeeping  
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## SUBPART E: EXPORTS OF HAZARDOUS WASTE

Section  
722.150 Applicability  
722.151 Definitions  
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722.153 Notification of Intent to Export  
722.154 Special Manifest Requirements  
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## SUBPART F: IMPORTS OF HAZARDOUS WASTE

Section  
722.160 Imports of Hazardous Waste

## SUBPART G: FARMERS

Section  
722.170 Farmers

SUBPART H: TRANSFRONTIER SHIPMENTS OF HAZARDOUS WASTE  
FOR RECOVERY WITHIN THE OECD

## Section

722.180 Applicability  
 722.181 Definitions  
 722.182 General Conditions  
 722.183 Notification and Consent  
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 722.185 Contracts  
 722.186 Provisions Relating to Recognized Traders  
 722.187 Reporting and Recordkeeping  
 722.189 OECD Waste Lists

## 722.Appendix A Hazardous Waste Manifest

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

SOURCE: Adopted in R81-22, 43 PCB 427, at 5 Ill. Reg. 9781, effective May 17, 1982; amended and codified in R81-22, 45 PCB 317, at 6 Ill. Reg. 4828, effective May 17, 1982; amended in R82-18, 51 PCB 31, at 7 Ill. Reg. 2518, effective February 22, 1983; amended in R84-9 at 9 Ill. Reg. 11950, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 1131, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 14112, effective August 12, 1986; amended in R86-19 at 10 Ill. Reg. 20709, effective December 2, 1986; amended in R86-46 at 11 Ill. Reg. 13555, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19392, effective November 12, 1987; amended in R87-39 at 12 Ill. Reg. 13129, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 452, effective December 27, 1988; amended in R89-1 at 13 Ill. Reg. 18523, effective November 13, 1989; amended in R90-10 at 14 Ill. Reg. 16653, effective September 25, 1990; amended in R90-11 at 15 Ill. Reg. 9644, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14562, effective October 1, 1991; amended in R91-13 at 16 Ill. Reg. 9833, effective June 9, 1992; amended in R92-1 at 16 Ill. Reg. 17696, effective November 6, 1992; amended in R93-4 at 17 Ill. Reg. 20822, effective November 22, 1993; amended in R95-6 at 19 Ill. Reg. 9935, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 11236, effective August 1, 1996; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 603, effective December 16, 1997; amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

SUBPART A: GENERAL

Section 722.110 Purpose, Scope and Applicability

- a) These regulations establish standards for generators of hazardous waste.

- b) 35 Ill. Adm. Code 721.105(c) and (d) must be used to determine the applicability of provisions of this Part that are dependent on calculations of the quantity of hazardous waste generated per month.
- c) A generator that treats, stores or disposes of hazardous waste on-site must only comply with the following Sections of this Part with respect to that waste: Section 722.111 for determining whether or not the generator has a hazardous waste, Section 722.112 for obtaining an USEPA identification number, Section 722.140(c) and (d) for recordkeeping, Section 722.143 for additional reporting and, if applicable, Section 722.170 for farmers.
- d) Any person that exports or imports hazardous waste subject to the hazardous waste manifesting requirements of this Part or subject to the universal waste management standards of 35 Ill. Adm. Code 733 to or from countries listed in Section 722.158(a)(1) for recovery must comply with Subpart H of this Part.
- e) This subsection corresponds with 40 CFR 262.10(e), a federal provision imposing the generator standards on a person importing hazardous waste into the United States. The regulation of international trade is a matter within the exclusive authority of the federal government. This statement maintains structural consistency with USEPA rules.
- ef) A farmer that generates waste pesticides which are hazardous waste and that complies with all of the requirements of Section ~~722.151~~722.170 is not required to comply with other standards in this Part, or 35 Ill. Adm. Code 702, 703, 724 725 or 728 with respect to such pesticides.
- fg) A person that generates a hazardous waste as defined by 35 Ill. Adm. Code 721 is subject to the compliance requirements and penalties prescribed in Title VIII and XII of the Environmental Protection Act if he does not comply with the requirements of this Part.
- gh) An owner or operator that initiates a shipment of hazardous waste from a treatment, storage or disposal facility must comply with the generator standards established in this Part.
- i) A person responding to an explosives or munitions emergency in accordance with 35 Ill. Adm. Code 724.101(g)(8)(A)(iv) or (g)(8)(D) or 35 Ill. Adm. Code 725.101(g)(8)(A)(iv) or (g)(8)(D) and 35 Ill. Adm. Code

703.121(c)(3)(A)(iv) or (C) is not required to comply with the standards of this Part.

BOARD NOTE: The provisions of Section 722.134 are applicable to the on-site accumulation of hazardous waste by generators. Therefore, the provisions of Section 722.134 only apply to owners or operators that are shipping hazardous waste which they generated at that facility. A generator that treats, stores or disposes of hazardous waste on-site must comply with the applicable standards and permit requirements set forth in 35 Ill. Adm. Code 702, 703, 724, 725, 726 and 728.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART B: THE MANIFEST

##### Section 722.120 General Requirements

- a) A generator who transports, or offers for transportation, hazardous waste for off-site treatment, storage or disposal must prepare a manifest before transporting the waste off-site.
- b) A generator must designate on the manifest one facility which is permitted to handle the waste described on the manifest.
- c) A generator may also designate on the manifest one alternate facility which is permitted to handle his waste in the event an emergency prevents delivery of the waste to the primary designated facility.
- d) If the transporter is unable to deliver the hazardous waste to the designated facility or the alternate facility, the generator must either designate another facility or instruct the transporter to return the waste.
- e) The requirements of this Subpart do not apply to hazardous waste produced by generators of greater than 100 kg but less than 1000 kg in a calendar month where:
  - 1) The waste is reclaimed under a contractual agreement pursuant to which:
    - A) The type of waste and frequency of shipments are specified in the agreement:

- B) The vehicle used to transport the waste to the recycling facility and to deliver regenerated material back to the generator is owned and operated by the reclaimer of the waste; and
- 2) The generator maintains a copy of the reclamation agreement in his files for a period of at least three years after termination or expiration of the agreement.
- f) The requirements of this Subpart B and Section 722.132(b) do not apply to the transport of hazardous wastes on a public or private right-of-way within or along the border of contiguous property under the control of the same person, even if such contiguous property is divided by a public or private right-of-way. Notwithstanding 35 Ill. Adm. Code 723.110(a), the generator or transporter shall comply with the requirements for transporters set forth in 35 Ill. Adm. Code 723.130 and 723.131 in the event of a discharge of hazardous waste on a public or private right-of-way.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART E: EXPORTS OF HAZARDOUS WASTE

##### Section 722.158 International Agreements

- a) Any person that exports or imports hazardous waste subject to either the manifest requirements of this Part or the universal waste management standards of 35 Ill. Adm. Code 733 which is shipped to or from designated member countries of the Organization for Economic Cooperation and Development (OECD), as defined in subsection (a)(1) of this Section, for purposes of recovery is subject to the requirements of 722.Subpart H of this Part. The requirements of Subparts E and F of this Part do not apply where 722.Subpart H of this Part applies.
- 1) For the purposes of this Subpart, the designated OECD countries are Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

- 2) Only for the purposes of transit under this Subpart, Canada and Mexico are considered OECD member countries.
- b) Any person that exports hazardous waste to or imports hazardous waste from any designated OECD member country for purposes other than recovery (e.g., incineration, disposal), Mexico (for any purpose), or Canada (for any purpose) remains subject to the requirements of Subparts E and F of this Part.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

SUBPART H: TRANSFRONTIER SHIPMENTS OF HAZARDOUS WASTE  
FOR RECOVERY WITHIN THE OECD

Section 722.180 Applicability

- a) The requirements of this Subpart apply to imports and exports of wastes that are considered hazardous under U.S. national procedures and which are destined for recovery operations in any of the countries listed in Section 722.158(a)(1). A waste is considered hazardous under U.S. national procedures if it meets the definition of hazardous waste in 35 Ill. Adm. Code 721.103 and it is subject to either the manifesting requirements in Subpart B of this Part, or to the universal waste management standards of 35 Ill. Adm. Code 733.
- b) Any person (notifier, consignee, or recovery facility operator) that mixes two or more wastes (including hazardous and non-hazardous wastes) or otherwise subjects two or more wastes (including hazardous and non-hazardous wastes) to physical or chemical transformation operations, and thereby creates a new hazardous waste, becomes a generator and assumes all subsequent generator duties under this Subchapter and any notifier duties under this Subpart, as applicable.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 722.184 Tracking Document

- a) All U.S. parties subject to the contract provisions of Section 722.185 must ensure that a tracking document meeting the conditions of subsection (b) of this Section accompanies each transfrontier shipment of wastes subject to amber-list or red-list controls from

the initiation of the shipment until it reaches the final recovery facility, including cases in which the waste is stored or exchanged by the consignee prior to shipment to the final recovery facility, except as provided in Section 262.184 subsections (a)(1) and (a)-(2) of this Section.

- 1) For shipments of hazardous waste within the U.S. solely by water (bulk shipments only), the generator must forward the tracking document with the manifest to the last water (bulk shipment) transporter to handle the waste in the U.S. if exported by water (in accordance with the manifest routing procedures at Section 722.123(c)).
  - 2) For rail shipments of hazardous waste within the U.S. which originate at the site of generation, the generator must forward the tracking document with the manifest (in accordance with the routing procedures for the manifest in Section 722.123(d)) to the next non-rail transporter, if any, or the last rail transporter to handle the waste in the U.S. if exported by rail.
- b) The tracking document must include all information required under Section 722.183 (for notification) and the following:
- 1) The date shipment commenced;
  - 2) The name (if not notifier), address, and telephone and telefax numbers of primary exporter;
  - 3) The company name and USEPA identification number of all transporters;
  - 4) Identification (license, registered name or registration number) of means of transport, including types of packaging;
  - 5) Any special precautions to be taken by transporters;
  - 6) A certification or declaration signed by notifier that no objection to the shipment has been lodged as follows:

"I certify that the above information is complete and correct to the best of my knowledge. I also certify that legally-enforceable written contractual obligations have been entered into, that any applicable insurance or other financial

guarantees are or shall be in force covering the transfrontier movement, and that:"

"1. All necessary consents have been received;" OR

"2. The shipment is directed at a recovery facility within the OECD area and no objection has been received from any of the concerned countries within the 30 day tacit consent period;" OR

"3. The shipment is directed at a recovery facility pre-authorized for that type of waste within the OECD area, such an authorization has not been revoked, and no objection has been received from any of the concerned countries."

(delete sentences that are not applicable)

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_"; and

- 7) The appropriate signatures for each custody transfer (e.g., transporter, consignee, and owner or operator of the recovery facility).
- c) Notifiers also must comply with the special manifest requirements of Section 722.154(a), (b), (c), (e), and (i) and consignees must comply with the import requirements of Subpart F of this Part.
- d) Each U.S. person that has physical custody of the waste from the time the movement commences until it arrives at the recovery facility must sign the tracking document (e.g., transporter, consignee, and owner or operator of the recovery facility).
- e) Within three working days of the receipt of imports subject to this Subpart, the owner or operator of the U.S. recovery facility must send signed copies of the tracking document to the notifier, to the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 401 M St., SW., Washington, DC 20460, and to the competent authorities of the exporting and transit countries.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## Section 722.187 Reporting and Recordkeeping

- a) Annual reports. For all waste movements subject to this Subpart, persons (e.g., notifiers, recognized traders) that meet the definition of primary exporter in Section 722.151 shall file an annual report with the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), U.S. Environmental Protection Agency, 401 M St., SW., Washington, DC 20460 and the Illinois Environmental Protection Agency, Bureau of Land, Division of Land Pollution Control, P.O. Box 19276, Springfield, IL ~~62706-9276~~62794, no later than March 1 of each year summarizing the types, quantities, frequency, and ultimate destination of all such hazardous waste exported during the previous calendar year. (If the primary exporter is required to file an annual report for waste exports that are not covered under this Subpart, the person filing may include all export information in one report provided the following information on exports of waste destined for recovery within the designated OECD member countries is contained in a separate Section). Such reports shall include the following information:
- 1) The USEPA identification number, name, and mailing and site address of the notifier filing the report;
  - 2) The calendar year covered by the report;
  - 3) The name and site address of each final recovery facility;
  - 4) By final recovery facility, for each hazardous waste exported, a description of the hazardous waste, the USEPA hazardous waste number (from 35 Ill. Adm. Code 721.Subpart C or 721.Subpart D), the designation of waste type(s) from the OECD waste list and applicable waste code from the OECD lists, DOT hazard class, the name and USEPA identification number (where applicable) for each transporter used, the total amount of hazardous waste shipped pursuant to this Subpart, and number of shipments pursuant to each notification;
  - 5) In even numbered years, for each hazardous waste exported, except for hazardous waste produced by exporters of greater than 100 kilograms (kg) but less than 1000 kg in a calendar month, and except for hazardous waste for which information was already provided pursuant to Section 722.141:

- A) A description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated; and
  - B) A description of the changes in volume and toxicity of the waste actually achieved during the year in comparison to previous years to the extent such information is available for years prior to 1984; and
- 6) A certification signed by the person acting as primary exporter that states as follows:
- "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this 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."
- b) Exception reports. Any person that meets the definition of primary exporter in Section 722.151 shall file with USEPA and the Agency an exception report in lieu of the requirements of Section 722.142 if any of the following occurs:
- 1) The person has not received a copy of the tracking documentation signed by the transporter stating point of departure of the waste from the United States within 45 days from the date it was accepted by the initial transporter;
  - 2) Within 90 days from the date the waste was accepted by the initial transporter, the notifier has not received written confirmation from the recovery facility that the hazardous waste was received; or
  - 3) The waste is returned to the United States.
- c) Recordkeeping.
- 1) Persons that meet the definition of primary exporter in Section 722.151 shall keep the following records:

- A) A copy of each notification of intent to export and all written consents obtained from the competent authorities of concerned countries, for a period of at least three years from the date the hazardous waste was accepted by the initial transporter;
  - B) A copy of each annual report, for a period of at least three years from the due date of the report; and
  - C) A copy of any exception reports and a copy of each confirmation of delivery (i.e., tracking documentation) sent by the recovery facility to the notifier, for at least three years from the date the hazardous waste was accepted by the initial transporter or received by the recovery facility, whichever is applicable.
- 2) The periods of retention referred to in this Section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by USEPA or the Agency.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 722.Appendix A Hazardous Waste Manifest

The Board incorporates by reference 40 CFR 262, Appendix (198897), ~~as amended at 53 Fed. Reg. 45090, November 8, 1988.~~ This Part incorporates no later amendments or editions. The Agency shall prepare manifest forms based on 40 CFR 262, Appendix, with such changes as are necessary under Illinois law.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

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

PART 723  
 STANDARDS APPLICABLE TO TRANSPORTERS OF HAZARDOUS WASTE

## SUBPART A: GENERAL

Section  
 723.110 Scope  
 723.111 USEPA Identification Number  
 723.112 Transfer Facility Requirements

SUBPART B: COMPLIANCE WITH THE MANIFEST SYSTEM AND  
RECORDKEEPING

Section  
 723.120 The Manifest System  
 723.121 Compliance with the Manifest  
 723.122 Recordkeeping

## SUBPART C: HAZARDOUS WASTE DISCHARGES

Section  
 723.130 Immediate Action  
 723.131 Discharge Clean Up

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

SOURCE: Adopted in R81-22, 43 PCB 427, at 5 Ill. Reg. 9781, effective May 17, 1982; amended and codified in R81-22, 45 PCB 17, at 6 Ill. Reg. 4828, effective May 17, 1982; amended in R84-9, at 9 Ill. Reg. 11961, effective July 24, 1985; amended in R86-19, at 10 Ill. Reg. 20718, effective December 2, 1986; amended in R86-46 at 11 Ill. Reg. 13570, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19412, effective November 12, 1987; amended in R95-6 at 19 Ill. Reg. 9945, effective June 27, 1995; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 589, effective December 16, 1997; amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

## SUBPART A: GENERAL

Section 723.110 Scope

- a) These regulations establish standards which apply to persons transporting hazardous waste into, out of or through Illinois if the transportation requires a manifest under 35 Ill. Adm. Code 722.
- b) These regulations do not apply to on-site transportation of hazardous waste by generators or by owners or operators of permitted hazardous waste management facilities.
- c) A transporter of hazardous waste must also comply with 35 Ill. Adm. Code 722, "Standards Applicable to Generators of Hazardous Waste", if he:

- 1) Transports hazardous waste into the United States from abroad; or
- 2) Mixes hazardous waste of different DOT shipping descriptions by placing them into a single container.

BOARD NOTE: Transporters that store hazardous waste are required to comply with the storage standards in 35 Ill. Adm. Code 724 and 725 and the permit requirements of 40 CFR 122.

- d) A transporter of hazardous waste subject to the manifesting requirements of 35 Ill. Adm. Code 722 or the waste management standards of 35 Ill. Adm. Code 733 that is being imported from or exported to any of the countries listed in 35 Ill. Adm. Code 722.158(a)(1) for purposes of recovery is subject to this Subpart and to all other relevant requirements of 35 Ill. Adm. Code 722.Subpart H, including, but not limited to, 35 Ill. Adm. Code 722.184 for tracking documents.
- e) The regulations in this Part do not apply to transportation during an explosives or munitions emergency response, conducted in accordance with 35 Ill. Adm. Code 724.101(g)(8)(A)(iv) or (g)(8)(D) or 35 Ill. Adm. Code 725.101(g)(8)(A)(iv) or (g)(8)(D), and 35 Ill. Adm. Code 703.121(c)(3)(A)(iv) or (C).
- f) 35 Ill. Adm. Code 726.303 identifies how the requirements of this Part apply to military munitions classified as solid waste under 35 Ill. Adm. Code 726.302.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

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

PART 724  
 STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE  
 TREATMENT, STORAGE, AND DISPOSAL FACILITIES

SUBPART A: GENERAL PROVISIONS

Section	
724.101	Purpose, Scope and Applicability
724.103	Relationship to Interim Status Standards

## SUBPART B: GENERAL FACILITY STANDARDS

Section	
724.110	Applicability
724.111	Identification Number
724.112	Required Notices
724.113	General Waste Analysis
724.114	Security
724.115	General Inspection Requirements
724.116	Personnel Training
724.117	General Requirements for Ignitable, Reactive or Incompatible Wastes
724.118	Location Standards
724.119	Construction Quality Assurance Program

## SUBPART C: PREPAREDNESS AND PREVENTION

Section	
724.130	Applicability
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724.132	Required Equipment
724.133	Testing and Maintenance of Equipment
724.134	Access to Communications or Alarm System
724.135	Required Aisle Space
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724.150	Applicability
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724.152	Content of Contingency Plan
724.153	Copies of Contingency Plan
724.154	Amendment of Contingency Plan
724.155	Emergency Coordinator
724.156	Emergency Procedures

## SUBPART E: MANIFEST SYSTEM, RECORDKEEPING AND REPORTING

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724.172	Manifest Discrepancies
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724.193	Hazardous Constituents

724.194	Concentration Limits
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724.196	Compliance Period
724.197	General Groundwater Monitoring Requirements
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#### SUBPART G: CLOSURE AND POST-CLOSURE

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724.212	Closure Plan; Amendment of Plan
724.213	Closure; Time Allowed For Closure
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724.215	Certification of Closure
724.216	Survey Plat
724.217	Post-closure Care and Use of Property
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#### SUBPART H: FINANCIAL REQUIREMENTS

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724.243	Financial Assurance for Closure
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724.245	Financial Assurance for Post-closure Care
724.246	Use of a Mechanism for Financial Assurance of Both Closure and Post-closure Care
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724.273	Management of Containers
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724.322	Action Leakage Rate
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724.327	Emergency Repairs; Contingency Plans
724.328	Closure and Post-closure Care
724.329	Special Requirements for Ignitable or Reactive Waste
724.330	Special Requirements for Incompatible Wastes
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## SUBPART L: WASTE PILES

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724.350	Applicability
724.351	Design and Operating Requirements
724.352	Action Leakage Rate
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724.356	Special Requirements for Ignitable or Reactive Waste
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724.372	Treatment Demonstration
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- 724.414 Special Requirements for Bulk and Containerized Liquids
- 724.415 Special Requirements for Containers
- 724.416 Disposal of Small Containers of Hazardous Waste in Overpacked Drums (Lab Packs)
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SUBPART S: CORRECTIVE ACTION FOR SOLID WASTE  
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- Section
- 724.652 Corrective Action Management Units
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## SUBPART W: DRIP PADS

- Section
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- 724.671 Assessment of existing drip pad integrity
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724.934	Test <del>methods</del> Methods and <del>procedures</del> Procedures
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Section	
724.950	Applicability
724.951	Definitions
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724.982	Standards: General
724.983	Waste Determination Procedures
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724.988	Inspection and Monitoring Requirements
724.989	Recordkeeping Requirements

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SUBPART DD: CONTAINMENT BUILDINGS

Section

- 724.1100 Applicability
- 724.1101 Design and operating standards
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SUBPART EE: HAZARDOUS WASTE MUNITIONS AND EXPLOSIVES  
STORAGE

Section

- 724.1200 Applicability
- 724.1201 Design and Operating Standards
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- 724.Appendix A Recordkeeping Instructions
- 724.Appendix B EPA Report Form and Instructions (Repealed)
- 724.Appendix D Cochran's Approximation to the Behrens-Fisher Student's T-Test
- 724.Appendix E Examples of Potentially Incompatible Waste
- 724.Appendix I Groundwater Monitoring List

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

SOURCE: Adopted in R82-19, 53 PCB 131, at 7 Ill. Reg. 14059, effective October 12, 1983; amended in R84-9 at 9 Ill. Reg. 11964, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 1136, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 14119, effective August 12, 1986; amended in R86-28 at 11 Ill. Reg. 6138, effective March 24, 1987; amended in R86-28 at 11 Ill. Reg. 8684, effective April 21, 1987; amended in R86-46 at 11 Ill. Reg. 13577, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19397, effective November 12, 1987; amended in R87-39 at 12 Ill. Reg. 13135, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 458, effective December 28, 1988; amended in R89-1 at 13 Ill. Reg. 18527, effective November 13, 1989; amended in R90-2 at 14 Ill. Reg. 14511, effective August 22, 1990; amended in R90-10 at 14 Ill. Reg. 16658, effective September 25, 1990; amended in R90-11 at 15 Ill. Reg. 9654, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14572, effective October 1, 1991; amended in R91-13 at 16 Ill. Reg. 9833, effective June 9, 1992; amended in R92-1 at 16 Ill. Reg. 17702, effective November 6, 1992; amended in R92-10 at 17 Ill. Reg. 5806, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20830, effective November 22, 1993; amended in R93-16 at 18 Ill. Reg. 6973, effective April 26, 1994; amended in R94-7 at 18 Ill. Reg. 12487, effective July 29, 1994; amended in R94-17 at 18 Ill. Reg. 17601, effective November 23, 1994; amended in R95-6 at 19 Ill. Reg. 9951, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 11244, August 1, 1996; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg.

636, effective December 16, 1997; amended in R98-12 at 22 Ill. Reg. 7638, effective April 15, 1998; amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

SUBPART A: GENERAL PROVISIONS

Section 724.101 Purpose, Scope and Applicability

- a) The purpose of this Part is to establish minimum standards that define the acceptable management of hazardous waste.
- b) The standards in this Part apply to owners and operators of all facilities that treat, store, or dispose of hazardous waste, except as specifically provided otherwise in this Part or 35 Ill. Adm. Code 721.
- c) The requirements of this Part apply to a person disposing of hazardous waste by means of ocean disposal subject to a permit issued under the Marine Protection, Research and Sanctuaries Act (16 U.S.C. 1431-1434, 33 U.S.C. 1401) only to the extent they are included in a RCRA permit by rule granted to such a person under 35 Ill. Adm. Code 703.141. A "RCRA permit" is a permit required by Section 21(f) of the Environmental Protection Act and 35 Ill. Adm. Code 703.121.

BOARD NOTE: This Part does apply to the treatment or storage of hazardous waste before it is loaded onto an ocean vessel for incineration or disposal at sea.

- d) The requirements of this Part apply to a person disposing of hazardous waste by means of underground injection subject to a permit issued by the Agency pursuant to Section 12(g) of the Environmental Protection Act only to the extent they are required by 35 Ill. Adm. Code 704.Subpart F.

BOARD NOTE: This Part does apply to the above-ground treatment or storage of hazardous waste before it is injected underground.

- e) The requirements of this Part apply to the owner or operator of a POTW (publicly owned treatment works) that treats, stores, or disposes of hazardous waste only to the extent included in a RCRA permit by rule granted to such a person under 35 Ill. Adm. Code 703.141.

- f) This subsection corresponds with 40 CFR 264.1(f), which provides that the federal regulations do not apply to T/S/D activities in authorized states, except under limited, enumerated circumstances. This statement maintains structural consistency with USEPA rules.
- g) The requirements of this Part do not apply to:
- 1) The owner or operator of a facility permitted by the Agency under Section 21 of the Environmental Protection Act to manage municipal or industrial solid waste, if the only hazardous waste the facility treats, stores, or disposes of is excluded from regulation under this Part by 35 Ill. Adm. Code 721.105.  
  
BOARD NOTE: The owner or operator may be subject to 35 Ill. Adm. Code 807 and may have to have a supplemental permit under 35 Ill. Adm. Code 807.210.
  - 2) The owner or operator of a facility managing recyclable materials described in 35 Ill. Adm. Code 721.106(a)(2) through (a)(4) (except to the extent that requirements of this Part are referred to in 35 Ill. Adm. Code 726.Subparts C, F, G, or H or 35 Ill. Adm. Code 739).
  - 3) A generator accumulating waste on-site in compliance with 35 Ill. Adm. Code 722.134.
  - 4) A farmer disposing of waste pesticides from the farmer's own use in compliance with 35 Ill. Adm. Code 722.170.
  - 5) The owner or operator of a totally enclosed treatment facility, as defined in 35 Ill. Adm. Code 720.110.
  - 6) The owner or operator of an elementary neutralization unit or a wastewater treatment unit, as defined in 35 Ill. Adm. Code 720.110, provided that if the owner or operator is diluting hazardous ignitable (D001) wastes (other than the D001 High TOC Subcategory defined in 35 Ill. Adm. Code 728.Table T) or reactive (D003) waste to remove the characteristic before land disposal, the owner or operator must comply with the requirements set out in Section 724.117(b).

- 7) This subsection corresponds with 40 CFR 264.1(g)-(7), reserved by USEPA. This statement maintains structural consistency with USEPA rules.
- 8) Immediate response:
- A) Except as provided in subsection (g)(8)(B) below, a person engaged in treatment or containment activities during immediate response to any of the following situations:
- i) A discharge of a hazardous waste;
  - ii) An imminent and substantial threat of a discharge of hazardous waste;
  - iii) A discharge of a material that becomes a hazardous waste when discharged ~~;~~ or
  - iv) An immediate threat to human health, public safety, property, or the environment from the known or suspected presence of military munitions, other explosive material, or an explosive device, as determined by an explosive or munitions emergency response specialist as defined in 35 Ill. Adm. Code 720.110.
- B) An owner or operator of a facility otherwise regulated by this Part must comply with all applicable requirements of 724.Subparts C and D.
- C) Any person that is covered by subsection (g)-(8)(A) above and that continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of this Part and 35 Ill. Adm. Code 702, 703, and 705 for those activities.
- D) In the case of an explosives or munitions emergency response, if a federal, state, or local official acting within the scope of his or her official responsibilities or an explosives or munitions emergency response specialist determines that immediate removal of the material or waste is necessary to protect human health or the environment, that official or specialist may authorize the removal of the material or waste by transporters who do not have USEPA

identification numbers and without the preparation of a manifest. In the case of emergencies involving military munitions, the responding military emergency response specialist's organizational unit shall retain records for three years identifying the dates of the response, the responsible persons responding, the type and description of material addressed, and its disposition.

- 9) A transporter storing manifested shipments of hazardous waste in containers meeting the requirements of 35 Ill. Adm. Code 722.130 at a transfer facility for a period of ten days or less.
- 10) The addition of absorbent materials to waste in a container (as defined in 35 Ill. Adm. Code 720) or the addition of waste to absorbent material in a container, provided these actions occur at the time waste is first placed in the container, and Sections 724.117(b), 724.271, and 724.272 are complied with.
- 11) A universal waste handler or universal waste transporter (as defined in 35 Ill. Adm. Code 720.110) that handles any of the wastes listed below is subject to regulation under 35 Ill. Adm. Code 733 when handling the following universal wastes:
  - A) Batteries, as described in 35 Ill. Adm. Code 733.102;
  - B) Pesticides, as described in 35 Ill. Adm. Code 733.103;
  - C) Thermostats, as described in 35 Ill. Adm. Code 733.104; and
  - D) Mercury-containing lamps, as described in 35 Ill. Adm. Code 733.107.  
 BOARD NOTE: Subsection (g)(11)(D) of this Section was added pursuant to Section 22.23a of the Act [415 ILCS 5/22.23a] (see P.A. 90-502, effective August 19, 1997).
- h) This Part applies to owners and operators of facilities that treat, store, or dispose of hazardous wastes referred to in 35 Ill. Adm. Code 728.

- i) 35 Ill. Adm. Code 726.505 identifies when the requirements of this Part apply to the storage of military munitions classified as solid waste under 35 Ill. Adm. Code 726.302. The treatment and disposal of hazardous waste military munitions are subject to the applicable permitting, procedural, and technical standards in 35 Ill. Adm. Code 702, 703, 705, 720 through 726, and 728.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

SUBPART E: MANIFEST SYSTEM, RECORDKEEPING AND REPORTING

Section 724.170 Applicability

The regulations in this Subpart apply to owners and operators of both on-site and off-site facilities, except as Section 724.101 provides otherwise. Sections 724.171, 724.172 and 724.176 do not apply to owners and operators of on-site facilities that do not receive any hazardous waste from off-site sources, **nor do they apply** to owners and operators of off-site facilities with respect to waste military munitions exempted from manifest requirements under 35 Ill. Adm. Code 726.303(a). Section 724.173(b) only applies to permittees which treat, store or dispose of hazardous wastes on-site where such wastes were generated.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

SUBPART J: TANK SYSTEMS

Section 724.298 Special Requirements for Ignitable or Reactive Waste

- a) Ignitable or reactive waste must not be placed in tank systems unless:
- 1) The waste is treated, rendered or mixed before or immediately after placement in the tank system so that:
    - A) The resulting waste, mixture or dissolved material no longer meets the definition of ignitable or reactive waste under 35 Ill. Adm. Code 721.121 or 721.123, and
    - B) Section 724.117(b) is complied with; or

- 2) The waste is stored or treated in such a way that it is protected from any material or conditions which may cause the waste to ignite or react; or
  - 3) The tank is used solely for emergencies.
- b) The owner or operator of a facility where ignitable or reactive waste is stored or treated in a tank must comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys or an adjoining property line that can be built upon as required in tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code," **NFPA 30**, incorporated by reference in 35 Ill. Adm. Code 720.111).

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

SUBPART AA: AIR EMISSION STANDARDS FOR PROCESS VENTS

Section 724.933 Standards: Closed-**ventVent** Systems and Control Devices

- a) Compliance Required.
- 1) Owners or operators of closed-vent systems and control devices used to comply with provisions of this Part shall comply with the provisions of this Section.
  - 2) The owner or operator of an existing facility that cannot install a closed-vent system and control device to comply with the provisions of this Subpart on the effective date that the facility becomes subject to the provisions of this Subpart shall prepare an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The controls must be installed as soon as possible, but the implementation schedule may allow up to 30 months after the effective date that the facility becomes subject to this Subpart for installation and startup. All units that begin operation after December 21, 1990, must comply with the rules immediately (i.e., must have control devices installed and operating on startup of the affected unit); the 2-year implementation schedule does not apply to these units.

- b) A control device involving vapor recovery (e.g., a condenser or adsorber) must be designed and operated to recover the organic vapors vented to it with an efficiency of 95 weight percent or greater unless the total organic emission limits of Section 724.932(a)(1) for all affected process vents is attained at an efficiency less than 95 weight percent.
- c) An enclosed combustion device (e.g., a vapor incinerator, boiler, or process heater) must be designed and operated to reduce the organic emissions vented to it by 95 weight percent or greater; to achieve a total organic compound concentration of 20 ppmv, expressed as the sum of the actual compounds and not in carbon equivalents, on a dry basis, corrected to three percent oxygen; or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760° C. If a boiler or process heater is used as the control device, then the vent stream must be introduced into the flame zone of the boiler or process heater.
- d) Flares:
  - 1) A flare must be designed for and operated with no visible emissions, as determined by the methods specified in subsection (e)(1), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
  - 2) A flare must be operated with a flame present at all times, as determined by the methods specified in subsection (f)(2)(C) of this Section.
  - 3) A flare must be used only if the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater and the flare is steam-assisted or air-assisted or if the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater and the flare is nonassisted. The net heating value of the gas being combusted must be determined by the methods specified in subsection (e)(2) of this Section.
  - 4) Exit Velocity.
    - A) A steam-assisted or nonassisted flare must be designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this Section, less than 18.3 m/s (60 ft/s), except as provided in subsections (d)(4)(B) and (d)-(4)(C) of this Section.

- B) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this Section, equal to or greater than 18.3 m/s (60 ft/s) but less than 122 m/s (400 ft/s) is allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1000 Btu/scf).
- C) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this Section, less than the velocity, V, as determined by the method specified in subsection (e)(4) of this Section and less than 122 m/s (400 ft/s) is allowed.
- 5) An air-assisted flare must be designed and operated with an exit velocity less than the velocity, V, as determined by the method specified in subsection (e)(5) of this Section.
- 6) A flare used to comply with this Section must be steam-assisted, air-assisted, or nonassisted.
- e) Compliance determination and equations.
- 1) Reference Method 22 in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111, must be used to determine the compliance of a flare with the visible emission provisions of this Subpart. The observation period is 2 hours and must be used according to Method 22.
- 2) The net heating value of the gas being combusted in a flare must be calculated using the following equation:

$$H_T = K \times \sum_{i=1}^n C_i \times H_i$$

Where:

$H_T$  is the net heating value of the sample in MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25° C and 760 mm Hg, but the standard temperature for determining the volume corresponding to 1 mole is 20° C.

$K = 1.74 \times 10^7$  (1/ppm)(g mol/scm)(MJ/kcal)  
where standard temperature for (g mol/scm) 20° C.

$\sum(X_i)$  means the sum of the values of X for each component i, from i=1 to n.

$C_i$  is the concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 in 40 CFR 60, and for carbon monoxide, by ASTM D 1946-90, incorporated by reference in 35 Ill. Adm. Code 720.111.

$H_i$  is the net heat of combustion of sample component i, kcal/gmol at 25° C and 760 mm Hg. The heats of combustion must be determined using ASTM D 2382, incorporated by reference in 35 Ill. Adm. Code 720.111, if published values are not available or cannot be calculated.

- 3) The actual exit velocity of a flare must be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.
- 4) The maximum allowed velocity in m/s,  $V_{max}$ , for a flare complying with subsection (d)(4)(C) must be determined by the following equation:

$$\log_{10}(V_{max}) = \frac{(H_T + 28.8)}{31.7}$$

$$\log_{10}(V_{max}) = \frac{H_T + 28.8}{31.7}$$

Where:

$\log_{10}$  means logarithm to the base 10

$H_T$  is the net heating value as determined in subsection (e)(2).

- 5) The maximum allowed velocity in m/s,  $V_{\max}$ , for an air-assisted flare must be determined by the following equation:

$$V_{\max} = 8.706 + 0.7084H_T$$

Where:

$H_T$  is the net heating value as determined in subsection (e)(2) of this Section.

- f) The owner or operator shall monitor and inspect each control device required to comply with this Section to ensure proper operation and maintenance of the control device by implementing the following requirements:
- 1) Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow indicator that provides a record of stream flow from each affected process vent to the control device at least once every hour. The flow indicator sensor must be installed in the vent stream at the nearest feasible point to the control device inlet but before the point at which the vent streams are combined.
  - 2) Install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor control device operation as specified below:
    - A) For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device must have accuracy of  $\pm 1\%$  of the temperature being monitored in  $^{\circ}\text{C}$  or  $\pm 0.5^{\circ}\text{C}$ , whichever is greater. The temperature sensor must be installed at a location in the combustion chamber downstream of the combustion zone.
    - B) For a catalytic vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature at two

locations and have an accuracy of  $\pm 1\%$  of the temperature being monitored in  $^{\circ}\text{C}$  or  $\pm 0.5^{\circ}\text{C}$ , whichever is greater. One temperature sensor must be installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature sensor must be installed in the vent stream at the nearest feasible point to the catalyst bed outlet.

- C) For a flare, a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame.
- D) For a boiler or process heater having a design heat input capacity less than 44 MW, a temperature monitoring device equipped with a continuous recorder. The device must have an accuracy of  $\pm 1\%$  of the temperature being monitored in  $^{\circ}\text{C}$  or  $\pm 0.5^{\circ}\text{C}$ , whichever is greater. The temperature sensor must be installed at a location in the furnace downstream of the combustion zone.
- E) For a boiler or process heater having a design heat input capacity greater than or equal to 44 MW, a monitoring device equipped with a continuous recorder to measure parameters that indicate good combustion operating practices are being used.
- F) For a condenser, either:
  - i) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the condenser; or
  - ii) A temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature with an accuracy of  $\pm 1\%$  of the temperature being monitored in  $^{\circ}\text{C}$  or  $\pm 0.5^{\circ}\text{C}$ , whichever is greater. The temperature sensor must be installed at a location in the exhaust vent stream from the condenser exit (i.e., product side).

- G) For a carbon adsorption system that regenerates the carbon bed directly in the control device such as a fixed-bed carbon adsorber, either:
  - i) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the carbon bed, or
  - ii) A monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle.
- 3) Inspect the readings from each monitoring device required by subsections (f)(1) and (f)(2) at least once each operating day to check control device operation and, if necessary, immediately implement the corrective measures necessary to ensure the control device operates in compliance with the requirements of this Section.
- g) An owner or operator using a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon at a regular, predetermined time interval that is no longer than the carbon service life established as a requirement of Section 724.935(b)(4)-(C)(vi).
- h) An owner or operator using a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon on a regular basis by using one of the following procedures:
  - 1) Monitor the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system on a regular schedule, and replace the existing carbon with fresh carbon immediately when carbon breakthrough is indicated. The monitoring frequency must be daily or at an interval no greater than 20% of the time required to consume the total carbon working capacity established as a requirement of Section 724.935(b)(4)(C)(vii), whichever is longer.

- 2) Replace the existing carbon with fresh carbon at a regular, predetermined time interval that is less than the design carbon replacement interval established as a requirement of Section 724.935(b)(4)(C)(vii).
- i) An alternative operational or process parameter may be monitored if the operator demonstrates that the parameter will ensure that the control device is operated in conformance with these standards and the control device's design specifications.
  - j) An owner or operator of an affected facility seeking to comply with the provisions of this Part by using a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system is required to develop documentation including sufficient information to describe the control device operation and identify the process parameter or parameters that indicate proper operation and maintenance of the control device.
  - k) A closed-vent system must meet either of the following design requirements:
    - 1) A closed-vent system must be designed to operate with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, as determined by the methods specified at Section 724.934(b), and by visual inspections; or
    - 2) A closed-vent system must be designed to operate at a pressure below atmospheric pressure. The system must be equipped with at least one pressure gauge or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system when the control device is operating.
  - l) The owner or operator shall monitor and inspect each closed-vent system required to comply with this Section to ensure proper operation and maintenance of the closed-vent system by implementing the following requirements:
    - 1) Each closed-vent system that is used to comply with subsection (k)(1) of this Section shall be inspected and monitored in accordance with the following requirements:

- A) An initial leak detection monitoring of the closed-vent system shall be conducted by the owner or operator on or before the date that the system becomes subject to this Section. The owner or operator shall monitor the closed-vent system components and connections using the procedures specified in Section 724.934(b) to demonstrate that the closed-vent system operates with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv ~~of this Section~~ above background.
- B) After initial leak detection monitoring required in subsection (1)(1)(A) of this Section, the owner or operator shall inspect and monitor the closed-vent system as follows:
- i) Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) must be visually inspected at least once per year to check for defects that could result in air pollutant emissions. The owner or operator shall monitor a component or connection using the procedures specified in Section 724.934(b) to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted).
  - ii) Closed-vent system components or connections other than those specified in subsection (1)(1)(B)(i) of this Section must be monitored annually and at other times as requested by the Regional Administrator, except as provided for in subsection (o) of this Section, using the procedures specified in Section 724.934(b) to demonstrate that the components or connections operate with no detectable emissions.

- C) In the event that a defect or leak is detected, the owner or operator shall repair the defect or leak in accordance with the requirements of subsection (l)(3) of this Section.
  - D) The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in Section 724.935.
- 2) Each closed-vent system that is used to comply with subsection (k)(2) of this Section must be inspected and monitored in accordance with the following requirements:
- A) The closed-vent system must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork or piping or loose connections.
  - B) The owner or operator shall perform an initial inspection of the closed-vent system on or before the date that the system becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year.
  - C) In the event that a defect or leak is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (l)(3) of this Section.
  - D) The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in Section 724.935.
- 3) The owner or operator shall repair all detected defects as follows:
- A) Detectable emissions, as indicated by visual inspection or by an instrument reading greater than 500 ppmv above background, must be controlled as soon as practicable, but not later than 15 calendar days after the emission is detected, except as provided for in subsection (l)(3)(C) of this Section.

- B) A first attempt at repair must be made no later than five calendar days after the emission is detected.
  - C) Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment must be completed by the end of the next process unit shutdown.
  - D) The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in Section 724.935.
- m) A closed-vent system or control device used to comply with provisions of this Subpart must be operated at all times when emissions may be vented to it.
- n) The owner or operator using a carbon adsorption system to control air pollutant emissions shall document that all carbon removed that is a hazardous waste and that is removed from the control device is managed in one of the following manners, regardless of the volatile organic concentration of the carbon:
- 1) It is regenerated or reactivated in a thermal treatment unit that meets one of the following:
    - A) The owner or operator of the unit has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of 724.Subpart X; or
    - B) The unit is equipped with and operating air emission controls in accordance with the applicable requirements of 724.Subparts AA and CC or 35 Ill. Adm. Code 725.Subparts AA and CC; or
    - C) The unit is equipped with and operating air emission controls in accordance with a national emission standard for hazardous air pollutants under 40 CFR 61 or 40 CFR 63.

- 2) It is incinerated in a hazardous waste incinerator for which the owner or operator has done either of the following:
  - A) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of 724.Subpart O, or
  - B) The owner or operator has certified compliance in accordance with the interim status requirements of 35 Ill. Adm. Code 725.Subpart O.
- 3) It is burned in a boiler or industrial furnace for which the owner or operator has done either of the following:
  - A) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of 35 Ill. Adm. Code 726.Subpart H, or
  - B) The owner or operator has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of 35 Ill. Adm. Code 726.Subpart H.
- o) Any components of a closed-vent system that are designated, as described in Section 724.935(c)(9), as unsafe to monitor are exempt from the requirements of subsection (1)(1)(B)(ii) of this Section if both of the following conditions are fulfilled:
  - 1) The owner or operator of the closed-vent system has determined that the components of the closed-vent system are unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with subsection (1)(1)(B)(ii) of this Section; and
  - 2) The owner or operator of the closed-vent system adheres to a written plan that requires monitoring the closed-vent system components using the procedure specified in subsection (1)(1)(B)(ii) as frequently as practicable during safe-to-monitor times.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective  
\_\_\_\_\_)

Section 724.934 Test ~~methods~~ Methods and ~~procedures~~ Procedures

- a) Each owner or operator subject to the provisions of this Subpart shall comply with the test methods and procedures requirements provided in this Section
- b) When a closed-vent system is tested for compliance with no detectable emissions, as required in Section 724.933(1), the test must comply with the following requirements:
  - 1) Monitoring must comply with Reference Method 21 in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111.
  - 2) The detection instrument must meet the performance criteria of Reference Method 21.
  - 3) The instrument must be calibrated before use on each day of its use by the procedures specified in Reference Method 21.
  - 4) Calibration gases must be:
    - A) Zero air (less than 10 ppm of hydrocarbon in air).
    - B) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.
  - 5) The background level must be determined as set forth in Reference Method 21.
  - 6) The instrument probe must be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.
  - 7) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.
- c) Performance tests to determine compliance with Section 724.932(a) and with the total organic compound concentration limit of Section 724.933(c) must comply with the following:
  - 1) Performance tests to determine total organic compound concentrations and mass flow rates

entering and exiting control devices must be conducted and data reduced in accordance with the following reference methods and calculation procedures:

- A) Method 2 in 40 CFR 60 for velocity and volumetric flow rate.
- B) Method 18 in 40 CFR 60 for organic content.
- C) Each performance test must consist of three separate runs, each run conducted for at least 1 hour under the conditions that exist when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. For the purpose of determining total organic compound concentrations and mass flow rates, the average of results of all runs applies. The average must be computed on a time-weighted basis.
- D) Total organic mass flow rates must be determined by the following equation:

$$E_h = Q_{2sd} \times \left( \sum_{i=1}^n C_i \times MW_i \right) \times 0.0416 \times 10^{-6}$$

Where:

$E_h$  = The total organic mass flow rate, kg/h.

$Q_{2sd}$  = The volumetric flow rate of gases entering or exiting control device, dscm/h, as determined by Method 2 in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111.

$n$  = The number of organic compounds in the vent gas.

$C_i$  = The organic concentration in ppm, dry basis, of compound  $i$  in the vent gas, as determined by Method 18 in 40 CFR 60.

$MW_i$  = The molecular weight of organic compound  $i$  in the vent gas, kg/kg-mol.

0.0416 = The conversion factor for molar volume, kg-mol/m<sup>3</sup>, at 293 K and 760 mm Hg.

$10^{-6}$  = The conversion factor from ppm.

- E) The annual total organic emission rate must be determined by the following equation:

$$A = F \times H$$

Where:

A is total organic emission rate, kg/y.

F is the total organic mass flow rate, kg/h, as calculated in subsection (c)(1)(D) of this Section.

H is the total annual hours of operation for the affected unit.

- F) Total organic emissions from all affected process vents at the facility must be determined by summing the hourly total organic mass emissions rates (F as determined in subsection (c)(1)(D) of this Section) and by summing the annual total organic mass emission rates (A as determined in subsection (c)(1)(E) of this Section) for all affected process vents at the facility.
- 2) The owner or operator shall record such process information as is necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown and malfunction do not constitute representative conditions for the purpose of a performance test.
- 3) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:
- A) Sampling ports adequate for the test methods specified in subsection (c)(1) of this Section.

- B) Safe sampling platform(s).
  - C) Safe access to sampling platform(s).
  - D) Utilities for sampling and testing equipment.
- 4) For the purpose of making compliance determinations, the time-weighted average of the results of the three runs must apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions or other circumstances beyond the owner or operator's control, compliance may, upon the Agency's approval, be determined using the average of the results of the two other runs.
- d) To show that a process vent associated with a hazardous waste distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation is not subject to the requirements of this Subpart, the owner or operator shall make an initial determination that the time-weighted, annual average total organic concentration of the waste managed by the waste management unit is less than 10 ppmw using one of the following two methods:
- 1) Direct measurement of the organic concentration of the waste using the following procedures:
    - A) The owner or operator shall take a minimum of four grab samples of waste for each wastestream managed in the affected unit under process conditions expected to cause the maximum waste organic concentration.
    - B) For waste generated onsite, the grab samples must be collected at a point before the waste is exposed to the atmosphere such as in an enclosed pipe or other closed system that is used to transfer the waste after generation to the first affected distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation. For waste generated offsite, the grab samples must be collected at the inlet to the first waste management unit that receives the waste provided the waste has been transferred to the facility in a closed

system such as a tank truck and the waste is not diluted or mixed with other waste.

- C) Each sample must be analyzed and the total organic concentration of the sample must be computed using Method 9060 or ~~8240-8260~~ of SW-846, incorporated by reference under 35 Ill. Adm. Code 720.111.
  - D) The arithmetic mean of the results of the analyses of the four samples apply for each wastestream managed in the unit in determining the time-weighted, annual average total organic concentration of the waste. The time-weighted average is to be calculated using the annual quantity of each waste stream processed and the mean organic concentration of each wastestream managed in the unit.
- 2) Using knowledge of the waste to determine that its total organic concentration is less than 10 ppmw. Documentation of the waste determination is required. Examples of documentation that must be used to support a determination under this subsection (d)(2) include:
- A) Production process information documenting that no organic compounds are used;
  - B) Information that the waste is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to generate a wastestream having a total organic content less than 10 ppmw; or
  - C) Prior speciation analysis results on the same wastestream where it is also documented that no process changes have occurred since that analysis that could affect the waste total organic concentration.
- e) The determination that a distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation that manages hazardous wastes that have time-weighted, annual average total organic concentrations less than 10 ppmw must be made as follows:
- 1) By the effective date that the facility becomes subject to the provisions of this Subpart or by

the date when the waste is first managed in a waste management unit, whichever is later; and

- 2) For continuously generated waste, annually; or
  - 3) Whenever there is a change in the waste being managed or a change in the process that generates or treats the waste.
- f) When an owner or operator and the Agency do not agree on whether a distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation manages a hazardous waste with organic concentrations of at least 10 ppmw based on knowledge of the waste, the procedures in Method ~~8240~~ 8260 in SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, **must-may** be used to resolve the dispute.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART BB: AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

##### Section 724.950 Applicability

- a) The regulations in this Subpart apply to owners and operators of facilities that treat, store, or dispose of hazardous wastes (except as provided in Section 724.101).
- b) Except as provided in Section 724.964(k), this Subpart applies to equipment that contains or contacts hazardous wastes with organic concentrations of at least 10% by weight that are managed in one of the following:
  - 1) A unit that is subject to the RCRA permitting requirements of 35 Ill. Adm. Code 702, 703, and 705,
  - 2) A unit (including a hazardous waste recycling unit) that is not exempt from permitting under the provisions of 35 Ill. Adm. Code 722.134(a) (i.e., a hazardous waste recycling unit that is not a "90-day" tank or container) and that is located at a hazardous waste management facility otherwise subject to the permitting requirements of 35 Ill. Adm. Code 702, 703, and 705, or

- 3) A unit that is exempt from permitting under the provisions of 35 Ill. Adm. Code 722.134(a) (i.e., a "90-day" tank or container).
- c) If the owner or operator of equipment subject to the requirements of Sections 724.952 through 724.965 has received a RCRA permit prior to December 21, 1990, the requirements of Sections 724.952 through 724.965 must be incorporated when the permit is reissued under 35 Ill. Adm. Code 705.201 or reviewed under 35 Ill. Adm. Code 702.161.
- d) Each piece of equipment to which this Subpart applies must be marked in such a manner that it can be distinguished readily from other pieces of equipment.
- e) Equipment that is in vacuum service is excluded from the requirements of Sections 724.952 to 724.960, if it is identified as required in Section 724.964(g)(5).
- f) Equipment that contains or contacts hazardous waste with an organic concentration of at least 10% by weight for a period of less than 300 hours per calendar year is excluded from the requirements of Sections ~~264.952~~ 724.952 through ~~264.960-724.960~~ 724.960 if it is identified as required in Section 724.964(g)(6).

BOARD NOTE: The requirements of Sections 724.952 through 724.965 apply to equipment associated with hazardous waste recycling units previously exempt under 35 Ill. Adm. Code 721.106(c)(1). Other exemptions under 35 Ill. Adm. Code 721.104 and 724.101(g) are not affected by these requirements.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### Section 724.963 Test Methods and Procedures

- a) Each owner or operator subject to the provisions of this Subpart shall comply with the test methods and procedures requirements provided in this Section.
- b) Leak detection monitoring, as required in Sections 724.952 through 724.962, must comply with the following requirements:
  - 1) Monitoring must comply with Reference Method 21 in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111.

- 2) The detection instrument must meet the performance criteria of Reference Method 21.
  - 3) The instrument must be calibrated before use on each day of its use by the procedures specified in Reference Method 21.
  - 4) Calibration gases must be:
    - A) Zero air (less than 10 ppm of hydrocarbon in air).
    - B) A mixture of methane or n-hexane and air at a concentration of approximately, but less than 10,000 ppm methane or n-hexane.
  - 5) The instrument probe must be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.
- c) When equipment is tested for compliance with no detectable emissions, as required in Sections 724.952(e), 724.953(i), 724.954, and 724.957(f), the test must comply with the following requirements:
- 1) The requirements of subsections (b)(1) through (b)(4) above apply.
  - 2) The background level must be determined as set forth in Reference Method 21.
  - 3) The instrument probe must be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.
  - 4) This arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.
- d) In accordance with the waste analysis plan required by Section 724.113(b), an owner or operator of a facility shall determine, for each piece of equipment, whether the equipment contains or contacts a hazardous waste with organic concentration that equals or exceeds 10 percent by weight using the following:
- 1) Methods described in ASTM Methods D 2267-88, E 168-88, E 169-87, and E 260-85, incorporated by reference in 35 Ill. Adm. Code 720.111;

- 2) Method 9060 or ~~8240-8260~~ of SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111; or
  - 3) Application of the knowledge of the nature of the hazardous wastestream or the process by which it was produced. Documentation of a waste determination by knowledge is required. Examples of documentation that must be used to support a determination under this provision include production process information documenting that no organic compounds are used, information that the waste is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to have a total organic content less than 10 percent, or prior speciation analysis results on the same wastestream where it is also documented that no process changes have occurred since that analysis that could affect the waste total organic concentration.
- e) If an owner or operator determines that a piece of equipment contains or contacts a hazardous waste with organic concentrations at least 10 percent by weight, the determination can be revised only after following the procedures in subsection (d)(1) or (d)(2) above.
  - f) When an owner or operator and the Agency do not agree on whether a piece of equipment contains or contacts a hazardous waste with organic concentrations at least 10 percent by weight, the procedures in subsection (d)(1) or (d)(2) above must be used to resolve the dispute.
  - g) Samples used in determining the percent organic content must be representative of the highest total organic content hazardous waste that is expected to be contained in or contact the equipment.
  - h) To determine if pumps or valves are in light liquid service, the vapor pressures of constituents must either be obtained from standard reference texts or be determined by ASTM D 2879-~~8692~~, incorporated by reference in 35 Ill. Adm. Code 720.111.
  - i) Performance tests to determine if a control device achieves 95 weight percent organic emission reduction must comply with the procedures of Section 724.934(c)-(1) through (c)(4).

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective  
\_\_\_\_\_)

## Section 724.964 Recordkeeping Requirements

- a) Lumping Units
  - 1) Each owner or operator subject to the provisions of this Subpart shall comply with the recordkeeping requirements of this Section.
  - 2) An owner or operator of more than one hazardous waste management unit subject to the provisions of this Subpart may comply with the recordkeeping requirements for these hazardous waste management units in one recordkeeping system if the system identifies each record by each hazardous waste management unit.
- b) Owners and operators shall record the following information in the facility operating record:
  - 1) For each piece of equipment to which this Subpart applies:
    - A) Equipment identification number and hazardous waste management unit identification.
    - B) Approximate locations within the facility (e.g., identify the hazardous waste management unit on a facility plot plan).
    - C) Type of equipment (e.g., a pump or pipeline valve).
    - D) Percent-by-weight total organics in the hazardous wastestream at the equipment.
    - E) Hazardous waste state at the equipment (e.g., gas-vapor or liquid).
    - F) Method of compliance with the standard (e.g., "monthly leak detection and repair" or "equipped with dual mechanical seals").
  - 2) For facilities ~~than that~~ comply with the provisions of Section 724.933(a)(2), an implementation schedule as specified in that Section.
  - 3) Where an owner or operator chooses to use test data to demonstrate the organic removal efficiency or total organic compound concentration achieved

by the control device, a performance test plan as specified in Section 724.935(b)(3).

- 4) Documentation of compliance with Section 724.960, including the detailed design documentation or performance test results specified in Section 724.935(b)(4).
- c) When each leak is detected as specified in Sections 724.952, 724.953, 724.957 or 724.958, the following requirements apply:
- 1) A weatherproof and readily visible identification, marked with the equipment identification number, the date evidence of a potential leak was found in accordance with Section 724.958(a), and the date the leak was detected, must be attached to the leaking equipment.
  - 2) The identification on equipment except on a valve, may be removed after it has been repaired.
  - 3) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in Section 724.957(c) and no leak has been detected during those 2 months.
- d) When each leak is detected as specified in Sections 724.952, 724.953, 724.957 or 724.958, the following information must be recorded in an inspection log and must be kept in the facility operating record:
- 1) The instrument and operator identification numbers and the equipment identification number.
  - 2) The date evidence of a potential leak was found in accordance with Section 724.958(a).
  - 3) The date the leak was detected and the dates of each attempt to repair the leak.
  - 4) Repair methods applied in each attempt to repair the leak.
  - 5) "Above 10,000", if the maximum instrument reading measured by the methods specified in Section 724.963(b) after each repair attempt is equal to or greater than 10,000 ppm.
  - 6) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

- 7) Documentation supporting the delay of repair of a valve in compliance with Section 724.959(c).
  - 8) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a hazardous waste management unit shutdown.
  - 9) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days.
  - 10) The date of successful repair of the leak.
- e) Design documentation and monitoring, operating and inspection information for each closed-vent system and control device required to comply with the provisions of Section 724.960 must be recorded and kept up-to-date in the facility operating record as specified in Section 724.935(c)(1) and (c)(2), and monitoring, operating and inspection information in Section 724.935(c)(3) through (c)(8).
  - f) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, the Agency shall specify the appropriate recordkeeping requirements, indicating proper operation and maintenance of the control device, in the RCRA permit.
  - g) The following information pertaining to all equipment subject to the requirements in Sections 724.952 through 724.960 must be recorded in a log that is kept in the facility operating record:
    - 1) A list of identification numbers for equipment (except welded fittings) subject to the requirements of this Subpart.
    - 2) List of Equipment
      - A) A list of identification numbers for equipment that the owner or operator elects to designate for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, under the provisions of Sections 724.952(e), 724.953(i) and 724.957(f).
      - B) The designation of this equipment as subject to the requirements of Section 724.952(e),

724.953(i) or 724.957(f) must be signed by the owner or operator.

- 3) A list of equipment identification numbers for pressure relief devices required to comply with Section 724.954(a).
  - 4) Compliance tests.
    - A) The dates of each compliance test required in Sections 724.952(e), 724.953(i), 724.954 and 724.957(f).
    - B) The background level measured during each compliance test.
    - C) The maximum instrument reading measured at the equipment during each compliance test.
  - 5) A list of identification numbers for equipment in vacuum service.
  - 6) Identification, either by list or location (area or group), of equipment that contains or contacts hazardous waste with an organic concentration of at least 10% by weight for a period of less than 300 hours per year.
- h) The following information pertaining to all valves subject to the requirements of Section 724.957(g) and (h) must be recorded in a log that is kept in the facility operating record:
- 1) A list of identification numbers for valves that are designated as unsafe to monitor, an explanation for each valve stating why the valve is unsafe to monitor, and the plan for monitoring each valve.
  - 2) A list of identification numbers for valves that are designated as difficult to monitor, an explanation for each valve stating why the valve is difficult to monitor, and the planned schedule for monitoring each valve.
- i) The following information must be recorded in the facility operating record for valves complying with Section 724.962:
- 1) A schedule of monitoring.

- 2) The percent of valves found leaking during each monitoring period.
- j) The following information must be recorded in a log that is kept in the facility operating record:
- 1) Criteria required in Sections 724.952(d)(5)(B) and 724.953(e)(2) and an explanation of the design criteria.
  - 2) Any changes to these criteria and the reasons for the changes.
- k) The following information must be recorded in a log that is kept in the facility operating record for use in determining exemptions as provided in Section 724.950 and other specific Subparts:
- 1) An analysis determining the design capacity of the hazardous waste management unit.
  - 2) A statement listing the hazardous waste influent to and effluent from each hazardous waste management unit subject to the requirements in Section 724.960 and an analysis determining whether these hazardous wastes are heavy liquids.
  - 3) An up-to-date analysis and the supporting information and data used to determine whether or not equipment is subject to the requirements in Sections 724.952 through 724.960. The record must include supporting documentation as required by Section 724.963(d)(3) when application of the knowledge of the nature of the hazardous wastestream or the process by which it was produced is used. If the owner or operator takes any action (e.g., changing the process that produced the waste) that could result in an increase in the total organic content of the waste contained in or contacted by equipment determined not to be subject to the requirements in Sections 724.952 through 724.960, then a new determination is required.
- l) Records of the equipment leak information required by subsection (d) of this Section and the operating information required by subsection (e) of this Section need be kept only 3 years.
- m) The owner or operator of any facility that is subject to this Subpart and to regulations at 40 CFR 60, Subpart VV, or 40 CFR 61, Subpart V, incorporated by

reference in 35 Ill. Adm. Code 720.111, may elect to determine compliance with this Subpart by documentation either pursuant to Section 724.964, or pursuant to those provisions of 40 CFR 60 or 61, to the extent that the documentation under the regulation at 40 CFR 60 or 61 duplicates the documentation required under this Subpart. The documentation under the regulation at 40 CFR 60 or 61 must be kept with or made readily available with the facility operating record.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

SUBPART CC: AIR EMISSION STANDARDS FOR TANKS, SURFACE IMPOUNDMENTS, AND CONTAINERS

Section 724.980 Applicability

- a) The requirements of this Subpart apply, effective October 6, 1996, to owners and operators of all facilities that treat, store, or dispose of hazardous waste in tanks, surface impoundments, or containers subject to 724.Subparts I, J, or K, except as Section 724.101 and subsection (b) of this Section provide otherwise.

BOARD NOTE: USEPA adopted these regulations at 59 Fed. Reg. 62896 (Dec. 6, 1994), effective June 6, 1995. At 60 Fed. Reg. 26828 (May 19, 1995), 60 Fed. Reg. 56952 (Nov. 13, 1995), and 61 Fed. Reg. 28508 (June 5, 1996), USEPA delayed the effective date until October 6, 1996. If action by USEPA or a decision of a federal court changes the effectiveness of these regulations, the Board does not intend that the 724.Subpart CC rules be enforceable to the extent that they become more stringent ~~that than~~ the federal regulations upon which they are based.

- b) The requirements of this Subpart do not apply to the following waste management units at the facility:
- 1) A waste management unit that holds hazardous waste placed in the unit before October 6, 1996, and in which no hazardous waste is added to the unit on or after this date.
  - 2) A container that has a design capacity less than or equal to 0.1 m<sup>3</sup> (3.5 ft<sup>3</sup> or 26.4 gal).
  - 3) A tank in which an owner or operator has stopped adding hazardous waste and the owner or operator

has begun implementing or completed closure pursuant to an approved closure plan.

- 4) A surface impoundment in which an owner or operator has stopped adding hazardous waste (except to implement an approved closure plan) and the owner or operator has begun implementing or completed closure pursuant to an approved closure plan.
  - 5) A waste management unit that is used solely for on-site treatment or storage of hazardous waste that is generated as the result of implementing remedial activities required pursuant to the Act or Board regulations or under the corrective action authorities of RCRA section 3004(u), 3004(v) or 3008(h); CERCLA authorities; or similar federal or state authorities.
  - 6) A waste management unit that is used solely for the management of radioactive mixed waste in accordance with all applicable regulations under the authority of the Atomic Energy Act (42 U.S.C. 2011 et seq.) and the Nuclear Waste Policy Act.
  - 7) A hazardous waste management unit that the owner or operator certifies is equipped with and operating air emission controls in accordance with the requirements of an applicable federal Clean Air Act regulation codified under 40 CFR 60, 61, or 63. For the purpose of complying with this subsection (b)(7), a tank for which the air emission control includes an enclosure, as opposed to a cover, must be in compliance with the enclosure and control device requirements of Section 724.984(i), except as provided in Section 724.982(c)(5).
  - 8) A tank that has a process vent, as defined in 35 Ill. Adm. Code 724.931.
- c) For the owner and operator of a facility subject to this Subpart and that received a final RCRA permit prior to October 6, 1996, the requirements of this Subpart shall be incorporated into the permit when the permit is reissued, renewed, or modified in accordance with the requirements of 35 Ill. Adm. Code 703 and 705. Until such date when the owner and operator receives a final permit incorporating the requirements of this Subpart, the owner and operator is subject to the requirements of 35 Ill. Adm. Code 725.Subpart CC.

- d) The requirements of this Subpart, except for the recordkeeping requirements specified in Section 724.989(i), are stayed for a tank or container used for the management of hazardous waste generated by organic peroxide manufacturing and its associated laboratory operations, when the owner or operator of the unit meets all of the following conditions:
- 1) The owner or operator identifies that the tank or container receives hazardous waste generated by an organic peroxide manufacturing process producing more than one functional family of organic peroxides or multiple organic peroxides within one functional family, that one or more of these organic peroxides could potentially undergo self-accelerating thermal decomposition at or below ambient temperatures, and that organic peroxides are the predominant products manufactured by the process. For the purposes of this subsection, "organic peroxide" means an organic compound that contains the bivalent -O-O- structure and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.
  - 2) The owner or operator prepares documentation, in accordance with Section 724.989(i), explaining why an undue safety hazard would be created if air emission controls specified in Sections 724.984 through 724.987 are installed and operated on the tanks and containers used at the facility to manage the hazardous waste generated by the organic peroxide manufacturing process or processes meeting the conditions of subsection (d)(1) of this Section.
  - 3) The owner or operator notifies the Agency in writing that hazardous waste generated by an organic peroxide manufacturing process or processes meeting the conditions of subsection (d)(1) of this Section are managed at the facility in tanks or containers meeting the conditions of subsection (d)(2) of this Section. The notification must state the name and address of the facility and be signed and dated by an authorized representative of the facility owner or operator.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective  
\_\_\_\_\_)

## Section 724.984 Standards: Tanks

- a) The provisions of this Section apply to the control of air pollutant emissions from tanks for which Section 724.982(b) references the use of this Section for such air emission control.
- b) The owner or operator shall control air pollutant emissions from each tank subject to this Section in accordance with the following requirements, as applicable:
  - 1) For a tank that manages hazardous waste that meets all of the conditions specified in subsections (b)(1)(A) through (b)(1)(C) of this Section, the owner or operator shall control air pollutant emissions from the tank in accordance with the Tank Level 1 controls specified in subsection (c) of this Section or the Tank Level 2 controls specified in subsection (d) of this Section.
    - A) The hazardous waste in the tank has a maximum organic vapor pressure that is less than the maximum organic vapor pressure limit for the tank's design capacity category as follows:
      - i) For a tank design capacity equal to or greater than 151 m<sup>3</sup> (39,900 gal), the maximum organic vapor pressure limit for the tank is 5.2 kPa (0.75 psig).
      - ii) For a tank design capacity equal to or greater than 75 m<sup>3</sup> (19,800 gal) but less than 151 m<sup>3</sup> (39,900 gal), the maximum organic vapor pressure limit for the tank is 27.6 kPa (4.00 psig).
      - iii) For a tank design capacity less than 75 m<sup>3</sup> (19,800 gal), the maximum organic vapor pressure limit for the tank is 76.6 kPa (11.1 psig).
    - B) The hazardous waste in the tank is not heated by the owner or operator to a temperature that is greater than the temperature at which the maximum organic vapor pressure of the hazardous waste is determined for the purpose of complying with subsection (b)(1)(A) of this Section.
    - C) The hazardous waste in the tank is not treated by the owner or operator using a

waste stabilization process, as defined in 35 Ill. Adm. Code 725.981.

- 2) For a tank that manages hazardous waste that does not meet all of the conditions specified in subsections (b)(1)(A) through (b)(1)(C) of this Section, the owner or operator shall control air pollutant emissions from the tank by using Tank Level 2 controls in accordance with the requirements of subsection (d) of this Section. Examples of tanks required to use Tank Level 2 controls include a tank used for a waste stabilization process and a tank for which the hazardous waste in the tank has a maximum organic vapor pressure that is equal to or greater than the maximum organic vapor pressure limit for the tank's design capacity category as specified in subsection (b)(1)(A) of this Section.
- c) Owners and operators controlling air pollutant emissions from a tank using Tank Level 1 controls must meet the requirements specified in subsections (c)(1) through (c)(4) of this Section:
  - 1) The owner or operator shall determine the maximum organic vapor pressure for a hazardous waste to be managed in the tank using Tank Level 1 controls before the first time the hazardous waste is placed in the tank. The maximum organic vapor pressure must be determined using the procedures specified in Section 724.983(c). Thereafter, the owner or operator shall perform a new determination whenever changes to the hazardous waste managed in the tank could potentially cause the maximum organic vapor pressure to increase to a level that is equal to or greater than the maximum organic vapor pressure limit for the tank design capacity category specified in subsection (b)(1)(A) of this Section, as applicable to the tank.
  - 2) The tank must be equipped with a fixed roof designed to meet the following specifications:
    - A) The fixed roof and its closure devices must be designed to form a continuous barrier over the entire surface area of the hazardous waste in the tank. The fixed roof may be a separate cover installed on the tank (e.g., a removable cover mounted on an open-top tank) or may be an integral part of the tank

structural design (e.g., a horizontal cylindrical tank equipped with a hatch).

- B) The fixed roof must be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between roof ~~Section-section~~ joints or between the interface of the roof edge and the tank wall.
  - C) Each opening in the fixed roof must be either:
    - i) Equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device; or
    - ii) Connected by a closed-vent system that is vented to a control device. The control device must remove or destroy organics in the vent stream, and it must be operating whenever hazardous waste is managed in the tank.
  - D) The fixed roof and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices must include the following: the organic vapor permeability; the effects of any contact with the hazardous waste or its vapors managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.
- 3) Whenever a hazardous waste is in the tank, the fixed roof must be installed with each closure device secured in the closed position, except as follows:
- A) Opening of closure devices or removal of the fixed roof is allowed at the following times:

- i) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.
  - ii) To remove accumulated sludge or other residues from the bottom of the tank.
- B) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the tank internal pressure in accordance with the tank design specifications. The device must be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens must be established such that the device remains in the closed position whenever the tank internal pressure is within the internal pressure operating range determined by the owner or operator based on the tank manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the tank internal pressure exceeds the internal pressure operating range for the tank as a result of loading operations or diurnal ambient temperature fluctuations.
- C) Opening of a safety device, as defined in 35 Ill. Adm. Code 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.

- 4) The owner or operator shall inspect the air emission control equipment in accordance with the following requirements.
  - A) The fixed roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.
  - B) The owner or operator shall perform an initial inspection of the fixed roof and its closure devices on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except under the special conditions provided for in subsection (l) of this Section.
  - C) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k) of this Section.
  - D) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 724.989(b).
- d) Owners and operators controlling air pollutant emissions from a tank using Tank Level 2 controls must use one of the following tanks:
  - 1) A fixed-roof tank equipped with an internal floating roof in accordance with the requirements specified in subsection (e) of this Section;
  - 2) A tank equipped with an external floating roof in accordance with the requirements specified in subsection (f) of this Section;
  - 3) A tank vented through a closed-vent system to a control device in accordance with the requirements specified in subsection (g) of this Section;

- 4) A pressure tank designed and operated in accordance with the requirements specified in subsection (h) of this Section; or
  - 5) A tank located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device in accordance with the requirements specified in subsection (i) of this Section.
- e) The owner or operator that controls air pollutant emissions from a tank using a fixed roof with an internal floating roof shall meet the requirements specified in subsections (e)(1) through (e)(3) of this Section.
- 1) The tank must be equipped with a fixed roof and an internal floating roof in accordance with the following requirements:
    - A) The internal floating roof must be designed to float on the liquid surface except when the floating roof must be supported by the leg supports.
    - B) The internal floating roof must be equipped with a continuous seal between the wall of the tank and the floating roof edge that meets either of the following requirements:
      - i) A single continuous seal that is either a liquid-mounted seal or a metallic shoe seal, as defined in 35 Ill. Adm. Code 725.981; or
      - ii) Two continuous seals mounted one ~~of this Section above~~ the other. The lower seal may be a vapor-mounted seal.
    - C) The internal floating roof must meet the following specifications:
      - i) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.
      - ii) Each opening in the internal floating roof must be equipped with a gasketed cover or a gasketed lid except for leg sleeves, automatic bleeder vents, rim

space vents, column wells, ladder wells, sample wells, and stub drains.

- iii) Each penetration of the internal floating roof for the purpose of sampling must have a slit fabric cover that covers at least 90% of the opening.
  - iv) Each automatic bleeder vent and rim space vent must be gasketed.
  - v) Each penetration of the internal floating roof that allows for passage of a ladder must have a gasketed sliding cover.
  - vi) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof must have a flexible fabric sleeve seal or a gasketed sliding cover.
- 2) The owner or operator shall operate the tank in accordance with the following requirements:
- A) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling must be continuous and must be completed as soon as practical.
  - B) Automatic bleeder vents are to be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.
  - C) Prior to filling the tank, each cover, access hatch, gauge float well or lid on any opening in the internal floating roof must be bolted or fastened closed (i.e., no visible gaps). Rim space vents must be set to open only when the internal floating roof is not floating or when the pressure beneath the rim exceeds the manufacturer's recommended setting.
- 3) The owner or operator shall inspect the internal floating roof in accordance with the procedures specified as follows:
- A) The floating roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects

include, but are not limited to, any of the following: when the internal floating roof is not floating on the surface of the liquid inside the tank; when liquid has accumulated on top of the internal floating roof; when any portion of the roof seals have detached from the roof rim; when holes, tears, or other openings are visible in the seal fabric; when the gaskets no longer close off the hazardous waste surface from the atmosphere; or when the slotted membrane has more than 10% open area.

- B) The owner or operator shall inspect the internal floating roof components as follows, except as provided in subsection (e)(3)(C) of this Section:
- i) Visually inspect the internal floating roof components through openings on the fixed-roof (e.g., manholes and roof hatches) at least once every 12 months after initial fill, and
  - ii) Visually inspect the internal floating roof, primary seal, secondary seal (if one is in service), gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least once every 10 years.
- C) As an alternative to performing the inspections specified in subsection (e)(3)(B) of this Section for an internal floating roof equipped with two continuous seals mounted one above the other, the owner or operator may visually inspect the internal floating roof, primary and secondary seals, gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least every five years.
- D) Prior to each inspection required by subsection (e)(3)(B) or (e)(3)(C) of this Section, the owner or operator shall notify the Agency in advance of each inspection to provide the Agency with the opportunity to have an observer present during the inspection. The owner or operator shall notify the Agency of the date and location of the inspection as follows:

- i) Prior to each visual inspection of an internal floating roof in a tank that has been emptied and degassed, written notification must be prepared and sent by the owner or operator so that it is received by the Agency at least 30 calendar days before refilling the tank, except when an inspection is not planned, as provided for in subsection (e)(3)(D)(ii) of this Section.
- ii) When a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the Agency as soon as possible, but no later than seven calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Agency at least seven calendar days before refilling the tank.
- E) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k) of this Section.
- F) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 724.989(b).
- f) The owner or operator that controls air pollutant emissions from a tank using an external floating roof must meet the requirements specified in subsections (f)(1) through (f)(3) of this Section.
  - 1) The owner or operator shall design the external floating roof in accordance with the following requirements:
    - A) The external floating roof must be designed to float on the liquid surface except when the floating roof must be supported by the leg supports.

- B) The floating roof must be equipped with two continuous seals, one above the other, between the wall of the tank and the roof edge. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.
- i) The primary seal must be a liquid-mounted seal or a metallic shoe seal, as defined in 35 Ill. Adm. Code 725.981. The total area of the gaps between the tank wall and the primary seal must not exceed 212 square centimeters ( $\text{cm}^2$ ) per meter (10.0 square inches ( $\text{in}^2$ ) per foot) of tank diameter, and the width of any portion of these gaps must not exceed 3.8 centimeters (cm) (1.5 in). If a metallic shoe seal is used for the primary seal, the metallic shoe seal must be designed so that one end extends into the liquid in the tank and the other end extends a vertical distance of at least 61 cm (24 in) above the liquid surface.
  - ii) The secondary seal must be mounted above the primary seal and cover the annular space between the floating roof and the wall of the tank. The total area of the gaps between the tank wall and the secondary seal must not exceed 21.2  $\text{cm}^2$  per meter (1.00  $\text{in}^2$  per foot) of tank diameter, and the width of any portion of these gaps must not exceed 1.3 cm (0.51 in).
- C) The external floating roof must meet the following specifications:
- i) Except for automatic bleeder vents (vacuum breaker vents) and rim space vents, each opening in a noncontact external floating roof must provide a projection below the liquid surface.
  - ii) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof must be equipped with a gasketed cover, seal, or lid.

- iii) Each access hatch and each gauge float well must be equipped with a cover designed to be bolted or fastened when the cover is secured in the closed position.
  - iv) Each automatic bleeder vent and each rim space vent must be equipped with a gasket.
  - v) Each roof drain that empties into the liquid managed in the tank must be equipped with a slotted membrane fabric cover that covers at least 90% of the area of the opening.
  - vi) Each unslotted and slotted guide pole well must be equipped with a gasketed sliding cover or a flexible fabric sleeve seal.
  - vii) Each unslotted guide pole must be equipped with a gasketed cap on the end of the pole.
  - viii) Each slotted guide pole must be equipped with a gasketed float or other device which closes off the liquid surface from the atmosphere.
  - ix) Each gauge hatch and each sample well must be equipped with a gasketed cover.
- 2) The owner or operator shall operate the tank in accordance with the following requirements:
- A) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling must be continuous and must be completed as soon as practical.
  - B) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof must be secured and maintained in a closed position at all times except when the closure device must be open for access.
  - C) Covers on each access hatch and each gauge float well must be bolted or fastened when secured in the closed position.

- D) Automatic bleeder vents must be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.
  - E) Rim space vents must be set to open only at those times that the roof is being floated off the roof leg supports or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.
  - F) The cap on the end of each unslotted guide pole must be secured in the closed position at all times except when measuring the level or collecting samples of the liquid in the tank.
  - G) The cover on each gauge hatch or sample well must be secured in the closed position at all times except when the hatch or well must be opened for access.
  - H) Both the primary seal and the secondary seal must completely cover the annular space between the external floating roof and the wall of the tank in a continuous fashion except during inspections.
- 3) The owner or operator shall inspect the external floating roof in accordance with the procedures specified as follows:
- A) The owner or operator shall measure the external floating roof seal gaps in accordance with the following requirements:
    - i) The owner or operator shall perform measurements of gaps between the tank wall and the primary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every five years.
    - ii) The owner or operator shall perform measurements of gaps between the tank wall and the secondary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every year.

- iii) If a tank ceases to hold hazardous waste for a period of one year or more, subsequent introduction of hazardous waste into the tank must be considered an initial operation for the purposes of subsections (f)(3)(A)(i) and (f)(3)(A)-(ii) of this Section.
  - iv) The owner or operator shall determine the total surface area of gaps in the primary seal and in the secondary seal individually using the procedure of subsection (f)(3)(D) of this Section.
  - v) In the event that the seal gap measurements do not conform to the specifications in subsection (f)(1)(B) of this Section, the owner or operator shall repair the defect in accordance with the requirements of subsection (k) of this Section.
  - vi) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 724.989(b).
- B) The owner or operator shall visually inspect the external floating roof in accordance with the following requirements:
- i) The floating roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, any of the following conditions: holes, tears, or other openings in the rim seal or seal fabric of the floating roof; a rim seal detached from the floating roof; all or a portion of the floating roof deck being submerged below the surface of the liquid in the tank; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.
  - ii) The owner or operator shall perform an initial inspection of the external floating roof and its closure devices on

or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in subsection (l) of this Section.

iii) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k) of this Section.

iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 724.989(b).

C) Prior to each inspection required by subsection (f)(3)(A) or (f)(3)(B), the owner or operator shall notify the Agency in advance of each inspection to provide the Agency with the opportunity to have an observer present during the inspection. The owner or operator shall notify the Agency of the date and location of the inspection as follows:

i) Prior to each inspection to measure external floating roof seal gaps as required under subsection (f)(3)(A) of this Section, written notification must be prepared and sent by the owner or operator so that it is received by the Agency at least 30 calendar days before the date the measurements are scheduled to be performed.

ii) Prior to each visual inspection of an external floating roof in a tank that has been emptied and degassed, written notification must be prepared and sent by the owner or operator so that it is received by the Agency at least 30 calendar days before refilling the tank, except when an inspection is not planned as provided for in subsection (f)(3)(C)-(iii) of this Section.

iii) When a visual inspection is not planned and the owner or operator could not have

known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the Agency as soon as possible, but no later than seven calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Agency at least seven calendar days before refilling the tank.

- D) Procedure for determining the total surface area of gaps in the primary seal and the secondary seal:
- i) The seal gap measurements must be performed at one or more floating roof levels when the roof is floating off the roof supports.
  - ii) Seal gaps, if any, must be measured around the entire perimeter of the floating roof in each place where a 0.32 cm (0.125 in) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the tank and measure the circumferential distance of each such location.
  - iii) For a seal gap measured under subsection (f)(3) of this Section, the gap surface area must be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.
  - iv) The total gap area must be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal perimeter of the tank. These total gap areas for the primary seal and secondary

seal are then compared to the respective standards for the seal type, as specified in subsection (f)(1)(B) of this Section.

BOARD NOTE: Subsections (f)(3)(D)(i) through (f)(3)(D)(iv) correspond with 40 CFR 264.1084(f)(3)(i)(D)(1) through (f)(3)(i)(D)(4), which the Board has codified here to comport with Illinois Administrative Code format requirements.

- g) The owner or operator that controls air pollutant emissions from a tank by venting the tank to a control device shall meet the requirements specified in subsections (g)(1) through (g)(3) of this Section.
  - 1) The tank must be covered by a fixed roof and vented directly through a closed-vent system to a control device in accordance with the following requirements:
    - A) The fixed roof and its closure devices must be designed to form a continuous barrier over the entire surface area of the liquid in the tank.
    - B) Each opening in the fixed roof not vented to the control device must be equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices must be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device must be designed to operate with no detectable organic emissions.
    - C) The fixed roof and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended

service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices must include the following: organic vapor permeability; the effects of any contact with the liquid and its vapor managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.

- D) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 724.987.
- 2) Whenever a hazardous waste is in the tank, the fixed roof must be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except as follows:
- A) Venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times:
    - i) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.
    - ii) To remove accumulated sludge or other residues from the bottom of a tank.
  - B) Opening of a safety device, as defined in 35 Ill. Adm. Code 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.
- 3) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the following procedures:

- A) The fixed roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, any of the following: visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.
  - B) The closed-vent system and control device must be inspected and monitored by the owner or operator in accordance with the procedures specified in Section 724.987.
  - C) The owner or operator shall perform an initial inspection of the air emission control equipment on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in subsection (l) of this Section.
  - D) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k) of this Section.
  - E) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 724.989(b).
- h) The owner or operator that controls air pollutant emissions by using a pressure tank must meet the following requirements:
- 1) The tank must be designed not to vent to the atmosphere as a result of compression of the vapor headspace in the tank during filling of the tank to its design capacity.
  - 2) All tank openings must be equipped with closure devices designed to operate with no detectable organic emissions as determined using the procedure specified in Section 724.983(d).
  - 3) Whenever a hazardous waste is in the tank, the tank must be operated as a closed system that does

not vent to the atmosphere except in the event that a safety device, as defined in 35 Ill. Adm. Code 725.981, is required to open to avoid an unsafe condition.

- i) The owner or operator that controls air pollutant emissions by using an enclosure vented through a closed-vent system to an enclosed combustion control device must meet the requirements specified in subsections (i)(1) through (i)(4) of this Section.
  - 1) The tank must be located inside an enclosure. The enclosure must be designed and operated in accordance with the criteria for a permanent total enclosure, as specified in "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure, as specified in Section 5.0 to "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure", initially when the enclosure is first installed and, thereafter, annually.
  - 2) The enclosure must be vented through a closed-vent system to an enclosed combustion control device that is designed and operated in accordance with the standards for either a vapor incinerator, boiler, or process heater specified in Section 724.987.
  - 3) Safety devices, as defined in 35 Ill. Adm. Code 725.981, may be installed and operated as necessary on any enclosure, closed-vent system, or control device used to comply with the requirements of subsections (i)(1) and (i)(2) of this Section.
  - 4) The owner or operator shall inspect and monitor the closed-vent system and control device as specified in Section 724.987.
- j) The owner or operator shall transfer hazardous waste to a tank subject to this Section in accordance with the following requirements:

- 1) Transfer of hazardous waste, except as provided in subsection (j)(2) of this Section, to the tank from another tank subject to this Section or from a surface impoundment subject to Section 724.985 must be conducted using continuous hard-piping or another closed system that does not allow exposure of the hazardous waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the requirements of 40 CFR 63, subpart RR, "National Emission Standards for Individual Drain Systems", incorporated by reference in 35 Ill. Adm. Code 720.111.
- 2) The requirements of subsection (j)(1) of this Section do not apply when transferring a hazardous waste to the tank under any of the following conditions:
  - A) The hazardous waste meets the average VO concentration conditions specified in Section 724.982(c)(1) at the point of waste origination.
  - B) The hazardous waste has been treated by an organic destruction or removal process to meet the requirements in Section 724.982(c)-(2).
- k) The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of subsection (c)(4), (e)(3), (f)(3), or (g)(3) of this Section, as follows:
  - 1) The owner or operator shall make first efforts at repair of the defect no later than five calendar days after detection, and repair must be completed as soon as possible but no later than 45 calendar days after detection except as provided in subsection (k)(2) of this Section.
  - 2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the hazardous waste normally managed in the tank. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Repair of

the defect must be completed before the process or unit resumes operation.

- 1) Following the initial inspection and monitoring of the cover, as required by the applicable provisions of this Subpart, subsequent inspection and monitoring may be performed at intervals longer than one year under the following special conditions:
  - 1) In the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions, then the owner or operator may designate a cover as an "unsafe to inspect and monitor cover" and comply with all of the following requirements:
    - A) Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required.
    - B) Develop and implement a written plan and schedule to inspect and monitor the cover, using the procedures specified in the applicable Section of this Subpart, as frequently as practicable during those times when a worker can safely access the cover.
  - 2) In the case when a tank is buried partially or entirely underground, an owner or operator is required to inspect and monitor, as required by the applicable provisions of this Section, only those portions of the tank cover and those connections to the tank (e.g., fill ports, access hatches, gauge wells, etc.) that are located on or above the ground surface.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### Section 724.990 Reporting Requirements

- a) Each owner or operator managing hazardous waste in a tank, surface impoundment, or container exempted from using air emission controls under the provisions of Section 724.982(c) shall report to the Agency each occurrence when hazardous waste is placed in the waste management unit in noncompliance with the conditions specified in Section 724.982(c)(1) or (c)(2), as applicable. Examples of such occurrences include placing in the waste management unit a hazardous waste having an average VO concentration equal to or greater

than 500 ppmw at the point of waste origination or placing in the waste management unit a treated hazardous waste that fails to meet the applicable conditions specified in Section 724.982(c)(2)(A) through (c)(2)(F). The owner or operator shall submit a written report within 15 calendar days of the time that the owner or operator becomes aware of the occurrence. The written report shall contain the USEPA identification number, the facility name and address, a description of the noncompliance event and the cause, the dates of the noncompliance, and the actions taken to correct the noncompliance and prevent recurrence of the noncompliance. The report shall be signed and dated by an authorized representative of the owner or operator.

- b) Each owner or operator using air emission controls on a tank in accordance with the requirements of Section 724.984(c) shall report to the Agency each occurrence when hazardous waste is managed in the tank in noncompliance with the conditions specified in Section 724.984(b). The owner or operator shall submit a written report within 15 calendar days of the time that the owner or operator becomes aware of the occurrence. The written report shall contain the USEPA identification number, the facility name and address, a description of the noncompliance event and the cause, the dates of the noncompliance, and the actions taken to correct the noncompliance and prevent recurrence of the noncompliance. The report shall be signed and dated by an authorized representative of the owner or operator.
- c) Each owner or operator using a control device in accordance with the requirements of Section 724.987 shall submit a semiannual written report to the Agency, ~~excepted except~~ as provided for in subsection (d) of this Section. The report shall describe each occurrence during the previous 6-month period when either of the two following events occurs: a control device is operated continuously for 24 hours or longer in noncompliance with the applicable operating values defined in Section 724.935(c)(4) or a flare is operated with visible emissions for five minutes or longer in a two-hour period, as defined in Section 724.933(d). The written report shall include the USEPA identification number, the facility name and address, and an explanation why the control device could not be returned to compliance within 24 hours, and actions taken to correct the noncompliance. The report shall be signed and dated by an authorized representative of the owner or operator.

- d) A report to the Agency in accordance with the requirements of subsection (c) of this Section is not required for a 6-month period during which all control devices subject to this Subpart are operated by the owner or operator so that both of the following conditions result: during no period of 24 hours or longer did a control device operate continuously in noncompliance with the applicable operating values defined in Section 724.935(c)(4) and no flare was operated with visible emissions for five minutes or longer in a two-hour period, as defined in Section 724.933(d).

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

SUBPART EE: HAZARDOUS WASTE MUNITIONS AND EXPLOSIVES STORAGE

Section 724.1200 Applicability

The requirements of this Subpart EE apply to owners or operators who store munitions and explosive hazardous wastes, except as Section 724.101 provides otherwise.

**BOARD NOTE:** Depending on explosive hazards, hazardous waste munitions and explosives may also be managed in other types of storage units, including containment buildings (724.Subpart DD of this Part), tanks (724.Subpart J of this Part), or containers (724.Subpart I of this Part); see 35 Ill. Adm. Code 726.305 for storage of waste military munitions.

(Source: Added at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 724.1201 Design and Operating Standards

- a) An owner or operator of a hazardous waste munitions and explosives storage unit shall design and operate the unit with containment systems, controls, and monitoring, that fulfill each of the following requirements:
- 1) The owner or operator minimizes the potential for detonation or other means of release of hazardous waste, hazardous constituents, hazardous decomposition products, or contaminated run-off to the soil, ground water, surface water, and atmosphere;

- 2) The owner or operator provides a primary barrier, which may be a container (including a shell) or tank, designed to contain the hazardous waste;
  - 3) For wastes stored outdoors, the owner or operator provides that the waste and containers will not be in standing precipitation;
  - 4) For liquid wastes, the owner or operator provides a secondary containment system that assures that any released liquids are contained and promptly detected and removed from the waste area or a vapor detection system that assures that any released liquids or vapors are promptly detected and an appropriate response taken (e.g., additional containment, such as overpacking or removal from the waste area); and
  - 5) The owner or operator provides monitoring and inspection procedures that assure the controls and containment systems are working as designed and that releases that may adversely impact human health or the environment are not escaping from the unit.
- b) Hazardous waste munitions and explosives stored under this Subpart EE may be stored in one of the following:
- 1) Earth-covered magazines. The owner or operator of an earth-covered magazine shall fulfill each of the following requirements:
    - A) The magazine is constructed of waterproofed, reinforced concrete or structural steel arches, with steel doors that are kept closed when not being accessed;
    - B) The magazine is so designed and constructed that it fulfills each of the following requirements:
      - i) The magazine is of sufficient strength and thickness to support the weight of any explosives or munitions stored and any equipment used in the unit;
      - ii) The magazine provides working space for personnel and equipment in the unit; and
      - iii) The magazine can withstand movement activities that occur in the unit; and

- C) The magazine is located and designed, with walls and earthen covers that direct an explosion in the unit in a safe direction, so as to minimize the propagation of an explosion to adjacent units and to minimize other effects of any explosion.
- 2) Above-ground magazines. Above-ground magazines must be located and designed so as to minimize the propagation of an explosion to adjacent units and to minimize other effects of any explosion.
- 3) Outdoor or open storage areas. Outdoor or open storage areas must be located and designed so as to minimize the propagation of an explosion to adjacent units and to minimize other effects of any explosion.
- c) An owner or operator shall store hazardous waste munitions and explosives in accordance with a standard operating procedure that specifies procedures which ensure safety, security, and environmental protection. If these procedures serve the same purpose as the security and inspection requirements of Section 724.114, the preparedness and prevention procedures of 724.Subpart C of this Part, and the contingency plan and emergency procedures requirements of 724.Subpart D of this Part, then the standard operating procedure may be used to fulfill those requirements.
- d) An owner or operator shall package hazardous waste munitions and explosives to ensure safety in handling and storage.
- e) An owner or operator shall inventory hazardous waste munitions and explosives inventoried at least annually.
- f) An owner or operator shall inspect and monitor hazardous waste munitions and explosives and their storage units as necessary to ensure explosives safety and to ensure that there is no migration of contaminants out of the unit.

(Source: Added at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 724.1202 Closure and Post-Closure Care

- a) At closure of a magazine or unit which stored hazardous waste under this subpart, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components,

contaminated subsoils, and structures and equipment contaminated with waste and manage them as hazardous waste unless 35 Ill. Adm. Code 721.103(d) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for magazines or units must meet all of the requirements specified in Subparts G and H of this Part, except that the owner or operator may defer closure of the unit as long as it remains in service as a munitions or explosives magazine or storage unit.

- b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in subsection (a) of this Section, the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, the owner or operator shall close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills (see Section 724.410).

(Source: Added at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### Section 724.Appendix I Groundwater Monitoring List

- a) The regulatory requirements pertain only to the list of substances; the right hand columns (Methods and PQL) are given for informational purposes only. See also subsections (e) and (f) of this Section.
- b) Common names are those widely used in government regulations, scientific publications and commerce; synonyms exist for many chemicals.
- c) "CAS RN" means "Chemical Abstracts Service Registry Number". Where "total" is entered, all species in the groundwater that contain this element are included.
- d) CAS index names are those used in the 9th Cumulative index.
- e) "Suggested Methods" refer to analytical procedure numbers used in "Test Methods for Solid Waste," **SW-846,** incorporated by reference in 35 Ill. Adm. Code 720.111. Analytical details can be found in "Test Methods", and in documentation on file with USEPA.—  
~~Caution: The methods listed are representative procedures and may not always be the most suitable methods for monitoring an analyte under the~~

regulations. The packed column gas chromatography methods 8010, 8020, 8030, 8040, 8060, 8080, 8090, 8110, 8120, 8140, 8150, 8240, and 8250 were in Update IIB of SW-846. However, in Update III, USEPA replaced these methods with "capillary column gas chromatography (GC) methods", as the suggested methods.

- f) Practical Quantitation Limits ("PQLs") are the lowest concentrations of analytes in groundwater that can be reliably determined within specified limits of precision and accuracy by the indicated methods under routine laboratory operating conditions. The PQLs listed are generally stated to one significant figure. Caution: The PQL values in many cases are based only on a general estimate for the method and not on a determination for individual compounds; PQLs are not a part of the regulation.
- g) PCBs (CAS RN 1336-36-3). This category contains congener chemicals, including constituents Aroclor-1016 (CAS RN 12674-11-2), Aroclor-1221 (CAS RN 11104-28-2), Aroclor-1232 (CAS RN 11141-16-5), Aroclor-1242 (CAS RN 53469-21-9), Aroclor-1248 (CAS RN 12672-29-6), Aroclor-1254 (CAS RN 11097-69-1) and Aroclor-1260 (CAS RN 11096-82-5). The PQL shown is an average value for PCB congeners.
- h) PCDDs. This category includes congener chemicals, including tetrachlorodibenzo-p-dioxins (see also 2,3,7,8-TCDD), pentachlorodibenzo-p-dioxins and hexachlorodibenzo-p-dioxins. The PQL shown is an average value for PCDD congeners.
- i) PCDFs. This category contains congener chemicals, including tetrachlorodibenzofurans, pentachlorodibenzofurans and hexachlorodibenzofurans. The PQL shown is an average for all PCDF congeners.

Common Name	CAS RN	Chemical Abstracts Service Index Name	Suggested methods	PQL (ug/L)
Acenaphthene	83-32-9	Acenaphthylene, 1,2-dihydro-	8100	200.
			8270	10.
Acenaphthylene	208-96-8	Acenaphthylene	8100	200.
			8270	10.
Acetone	67-64-1	2-Propanone	8240	100.

Acetophenone	98-86-2	Ethanone, 1-phenyl-	8270	10.
Acetonitrile; Methyl cyanide	75-05-8	Acetonitrile	8015	100.
2- Acetylaminofluorene ; 2-AAF	53-96-3	Acetamide, N-9H- fluoren-2-yl-	8270	10.
Acrolein	107-02-8	2-Propenal	8030 8240	5. 5.
Acrylonitrile	107-13-1	2-Propenenitrile	8030 8240	5. 5.
Aldrin	309-00-2	1,4:5,8-Dimethano- naphthalene, 1,2,3,4,10,10-hexa- chloro- 1,4,4a,5,8,8a-hexa- hydro- (1 $\alpha$ ,4 $\alpha$ ,4 $\alpha$ ,4 $\alpha$ , 8 $\alpha$ ,8 $\alpha$ )-	8080 8270	0.05 10.
Allyl chloride	107-05-1	1-Propene, 3- chloro-	8010 8240	5. 100.
4-Aminobiphenyl	92-67-1	[1,1'-Biphenyl]-4- amine	8270	10.
Aniline	62-53-3	Benzenamine	8270	10.
Anthracene	120-12-7	Anthracene	8100 8270	200. 10.
Antimony	(Total)	Antimony	6010 7040 7041	300. 2000. 30.
Aramite	140-57-8	Sulfurous acid, 2- chloroethyl 2-[4- (1,1-dimethyl- ethyl)phenoxy]-1- methylethyl ester	8270	10.
Arsenic	(Total)	Arsenic	6010 7060 7061	500. 10. 20.

Barium	(Total)	Barium	6010 7080	20. 1000.
Benzene	71-43-2	Benzene	8020 8240	2. 5.
Benzo[a]anthracene; Benzanthracene	56-55-3	Benz[a]anthracene	8100 8270	200. 10.
Benzo[b]fluor- anthene	205-99-2	Benz[e]acephen- anthrylene	8100 8270	200. 10.
Benzo[k]fluor- anthene	207-08-9	Benzo[k]fluoran- thene	8100 8270	200. 10.
Benzo[ghi]perylene	191-24-2	Benzo[ghi]perylene	8100 8270	200. 10.
Benzo[a]pyrene	50-32-8	Benzo[a]pyrene	8100 8270	200. 10.
Benzyl alcohol	100-51-6	Benzenemethanol	8270	20.
Beryllium	(Total)	Beryllium	6010 7090 7091	3. 50. 2.
<b>alpha</b> -BHC	319-84-6	Cyclohexane, 1,2,3,4,5,6-hexa- chloro-, (1 <b>alpha</b> ,2 <b>alpha</b> ,3 <b>beta</b> ,4 <b>alpha</b> ,5 <b>beta</b> <b>beta</b> ,6 <b>beta</b> )-	8080 8250	0.05 10.
<b>beta</b> -BHC	319-85-7	Cyclohexane, 1,2,3,4,5,6-hexa- chloro-, (1 <b>alpha</b> ,2 <b>beta</b> ,3 <b>al</b> <b>pha</b> ,4 <b>beta</b> ,5 <b>alpha</b> ,6 <b>beta</b> )-	8080 8250	0.05 40.
<b>delta</b> -BHC	319-86-8	Cyclohexane, 1,2,3,4,5,6-hexa- chloro-, (1 <b>alpha</b> ,2 <b>alpha</b> ,3 <b>alpha</b> ,4 <b>beta</b> ,5 <b>alph</b> <b>alpha</b> ,6 <b>beta</b> )-	8080 8250	0.1 30.

gamma-BHC; Lindane	58-89-9	Cyclohexane,	8080	0.05
		1,2,3,4,5,6-hexa- chloro-, (1alpha,2alpha,3 beta,4alpha,5alph a,6beta)-	8250	10.
Bis(2-chloroeth- oxy)methane	111-91-1	Ethane, 1,1'- [methylenebis- (oxy)]bis[2-chloro-	8270	10.
Bis(2-chloroethyl)- ether	111-44-4	Ethane, 1,1'-oxy- bis[2-chloro-	8270	10.
Bis(2-chloro-1- methylethyl) ether; 2,2'-Dichlorodiiso- propyl ether	108-60-1	Propane, 2,2'-	8010	100.
		oxybis[1-chloro-	8270	10.
Bis(2-ethylhexyl) phthalate	117-81-7	1,2-Benzenedi-	8060	20.
		carboxylic acid, bis(2-ethylhexyl) ester	8270	10.
Bromodichloro- methane	75-27-4	Methane, bromodi-	8010	1.
		chloro-	8240	5.
Bromoform; Tri- bromomethane	75-25-2	Methane, tribromo-	8010	2.
			8240	5.
4-Bromophenyl phenyl ether	101-55-3	Benzene, 1-bromo-4- phenoxy-	8270	10.
Butyl benzyl phthalate; Benzyl butyl phthalate	85-68-7	1,2-Benzenedi-	8060	5.
		carboxylic acid, butyl phenylmethyl ester	8270	10.
Cadmium	Total	Cadmium	6010	40.
			7130	50.
			7131	1.
Carbon disulfide	75-15-0	Carbon disulfide	8240	5.
Carbon tetra- chloride	56-23-5	Methane, tetra-	8010	1.
		chloro-	8240	5.

Chlordane	57-74-9	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-	8080	0.1
			8250	10.
p-Chloroaniline	106-47-8	Benzeneamine, 4-chloro-	8270	20.
Chlorobenzene	108-90-7	Benzene, chloro-	8010	2.
			8020	2.
			8240	5.
Chlorobenzilate	510-15-6	Benzeneacetic acid, 4-chloro- <b>alpha</b> -(4-chlorophenyl)- <b>alpha</b> -hydroxy-, ethyl ester	8270	10.
p-Chloro-m-cresol	59-50-7	Phenol, 4-chloro-3-methyl-	8040	5.
			8270	20.
Chloroethane; Ethyl chloride	75-00-3	Ethane, chloro-	8010	5.
			8240	10.
Chloroform	67-66-3	Methane, trichloro-	8010	0.5
			8240	5.
2-Chloronaphthalene	91-58-7	Naphthalene, 2-chloro-	8120	10.
			8270	10.
2-Chlorophenol	95-57-8	Phenol, 2-chloro-	8040	5.
			8270	10.
4-Chlorophenyl phenyl ether	7005-72-3	Benzene, 1-chloro-4-phenoxy-	8270	10.
Chloroprene	126-99-8	1,3-Butadiene, 2-chloro-	8010	50.
			8240	5.
Chromium	(Total)	Chromium	6010	70.
			7190	500.
			7191	10.
Chrysene	218-01-9	Chrysene	8100	200.
			8270	10.
Cobalt	(Total)	Cobalt	6010	70.
			7200	500.
			7201	10.

Copper	(Total)	Copper	6010 7210	60. 200.
m-Cresol	108-39-4	Phenol, 3-methyl-	8270	10.
o-Cresol	95-48-7	Phenol, 2-methyl-	8270	10.
p-Cresol	106-44-5	Phenol, 4-methyl-	8270	10.
Cyanide	57-12-5	Cyanide	9010	40.
2,4-D; 2,4-Di- chlorophenoxyacetic acid	94-75-7	Acetic acid, (2,4- dichlorophenoxy)-	8150	10.
4,4'-DDD	72-54-8	Benzene, 1,1'-(2,2- dichloroethyl- idene)bis[4-chloro-	8080 8270	0.1 10.
4,4'-DDE	72-55-9	Benzene, 1,1'-(di- chloroethylidene)- bis[4-chloro-	8080 8270	0.05 10.
4,4'-DDT	50-29-3	Benzene, 1,1'- (2,2,2-trichloro- ethylidene)bis[4- chloro-	8080 8270	0.1 10.
Diallate	2303-16- 4	Carbamothioic acid, bis(1-methylethyl)- , S-(2,3-dichloro-- 2-propenyl) ester	8270	10.
Dibenz[a,h]- anthracene	53-70-3	Dibenz[a,h]- anthracene	8100 8270	200. 10.
Dibenzofuran	132-64-9	Dibenzofuran	8270	10.
Dibromochloro- methane; Chlorodi- bromomethane	124-48-1	Methane, dibromo- chloro-	8010 8240	1. 5.
1,2-Dibromo-3- chloropropane; DBCP	96-12-8	Propane, 1,2-di- bromo-3-chloro-	8010 8240 8270	100. 5. 10.
1,2-Dibromoethane; Ethylene dibromide	106-93-4	Ethane, 1,2-di- bromo-	8010 8240	10. 5.

Di-n-butyl phthalate	84-74-2	1,2-Benzenedi-carboxylic acid, dibutyl ester	8060 8270	5. 10.
o-Dichlorobenzene	95-50-1	Benzene, 1,2-dichloro-	8010 8020 8120 8270	2. 5. 10. 10.
m-Dichlorobenzene	541-73-1	Benzene, 1,3-dichloro-	8010 8020 8120 8270	5. 5. 10. 10.
p-Dichlorobenzene	106-46-7	Benzene, 1,4-dichloro-	8010 8020 8120 8270	2. 5. 15. 10.
3,3'-Dichlorobenzidine	91-94-1	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-	8270	20.
trans-1,4-Dichloro-2-butene	110-57-6	2-Butene, 1,4-dichloro-, (E)-	8240	5.
Dichlorodifluoromethane	75-71-8	Methane, dichlorodifluoro-	8010 8240	10. 5.
1,1-Dichloroethane	75-34-3	Ethane, 1,1-dichloro-	8010 8240	1. 5.
1,2-Dichloroethane; Ethylene dichloride	107-06-2	Ethane, 1,2-dichloro-	8010 8240	0.5 5.
1,1-Dichloroethylene; Vinylidene chloride	75-35-4	Ethene, 1,1-dichloro-	8010 8240	1. 5.
trans-1,2-Dichloroethylene	156-60-5	Ethene, 1,2-dichloro-, (E)-	8010 8240	1. 5.
2,4-Dichlorophenol	120-83-2	Phenol, 2,4-dichloro-	8040 8270	5. 10.
2,6-Dichlorophenol	87-65-0	Phenol, 2,6-dichloro-	8270	10.
1,2-Dichloropropane	78-87-5	Propane, 1,2-dichloro-	8010 8240	0.5 5.

cis-1,3-Dichloro- propene	10061- 01-5	1-Propene, 1,3-di- chloro-, (Z)-	8010 8240	20. 5.
trans-1,3-Dichloro- propene	10061- 02-6	1-Propene, 1,3-di- chloro-, (E)-	8010 8240	5. 5.
Dieldrin	60-57-1	2,7:3,6-Dimethan- onaphth[2,3-b]- oxirene, 3,4,5,6,9,9-hexa- chloro- 1a,2,2a,3,6,6a,7,7a -octahydro- , (1a $\alpha$ , 2 $\beta$ , 2 a $\alpha$ , 3 $\beta$ , 6 $\beta$ , 6 a $\beta$ , 6a $\alpha$ , 7 $\beta$ , 7a $\alpha$ )-	8080 8270	0.05 10.
Diethyl phthalate	84-66-2	1,2-Benzenedi- carboxylic acid, diethyl ester	8060 8270	5. 10.
O,O-Diethyl O-2- pyrazinyl phosphorothioate; Thionazin	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester	8270	10.
Dimethoate	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)- 2-oxoethyl] ester	8270	10.
p-(Dimethylamino)- azobenzene	60-11-7	Benzenamine, N,N- dimethyl-4-(phenyl- azo)-	8270	10.
7,12-Dimethylbenz- [a]anthracene	57-97-6	Benz[a]- anthracene, 7,12-di- methyl-	8270	10.
3,3'-Dimethyl- benzidine	119-93-7	[1,1'-Biphenyl]- 4,4'-diamine, 3,3'- dimethyl-	8270	10.
$\alpha$ , $\alpha$ -Di- methylphenethyl- amine	122-09-8	Benzeneethanamine, $\alpha$ , $\alpha$ -di- methyl-	8270	10.
2,4-Dimethylphenol	105-67-9	Phenol, 2,4-di- methyl-	8040 8270	5. 10.

Dimethyl phthalate	131-11-3	1,2-Benzenedi-carboxylic acid, dimethyl ester	8060 8270	5. 10.
m-Dinitrobenzene	99-65-0	Benzene, 1,3-dinitro-	8270	10.
4,6-Dinitro-o-cresol	534-52-1	Phenol, 2-methyl-4,6-dinitro-	8040 8270	150. 50.
2,4-Dinitrophenol	51-28-5	Phenol, 2,4-dinitro-	8040 8270	150. 50.
2,4-Dinitrotoluene	121-14-2	Benzene, 1-methyl-2,4-dinitro-	8090 8270	0.2 10.
2,6-Dinitrotoluene	606-20-2	Benzene, 2-methyl-1,3-dinitro-	8090 8270	0.1 10.
Dinoseb; DNBP; 2-sec-Butyl-4,6-dinitrophenol	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-	8150 8270	1. 10.
Di-n-octyl phthalate	117-84-0	1,2-Benzenedi-carboxylic acid, dioctyl ester	8060 8270	30. 10.
1,4-Dioxane	123-91-1	1,4-Dioxane	8015	150.
Diphenylamine	122-39-4	Benzeneamine, N-phenyl-	8270	10.
Disulfoton	298-04-4	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)-ethyl] ester	8140 8270	2. 10.
Endosulfan I	959-98-8	6,9-Methano-2,4,3-benzodi-oxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide, (3 $\alpha$ ,5 $\beta$ ,6 $\alpha$ ,9 $\alpha$ ,9 $\beta$ )-	8080 8250	0.1 10.

Endosulfan II	33213-65-9	6,9-Methano-2,4,3-benzodioxathiepin,6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide, (3 $\alpha$ ,5 $\alpha$ ,6 $\beta$ ,9 $\beta$ ,9a $\alpha$ )-	8080	0.05
Endosulfan sulfate	1031-07-8	6,9-Methano-2,4,3-benzodioxathiepin,6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-,3,3-dioxide	8080 8270	0.5 10.
Endrin	72-20-8	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1a $\alpha$ ,2 $\beta$ ,2a $\beta$ ,3 $\alpha$ ,6 $\alpha$ ,6a $\beta$ ,7 $\beta$ ,7a $\alpha$ )-	8080 8250	0.1 10.
Endrin aldehyde	7421-93-4	1,2,4-Methanocyclopenta[cd]pentalene-5-carboxaldehyde, 2,2a,3,3,4,7-hexachlorodecahydro-, (1 $\alpha$ ,2 $\beta$ ,2a $\beta$ ,4 $\beta$ ,4a $\beta$ ,5 $\beta$ ,6a $\beta$ ,6b $\beta$ ,7R)-	8080 8270	0.2 10.
Ethylbenzene	100-41-4	Benzene, ethyl-	8020 8240	2. 5.
Ethyl methacrylate	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester	8015 8240 8270	10. 5. 10.
Ethyl methanesulfonate	62-50-0	Methanesulfonic acid, ethyl ester	8270	10.

Famphur	52-85-7	Phosphorothioic acid, O-[4-[(dimethylamino)-sulfonyl]phenyl]-O,O-dimethyl ester	8270	10.
Fluoranthene	206-44-0	Fluoranthene	8100 8270	200. 10.
Fluorene	86-73-7	9H-Fluorene	8100 8270	200. 10.
Heptachlor	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-	8080 8270	0.05 10.
Heptachlor epoxide	1024-57-3	2,5-Methano-2H-indeno[1,2-b]-oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1a $\alpha$ , 1b $\beta$ , 2 $\alpha$ , 5 $\alpha$ , 5ab $\beta$ , 6 $\beta$ , 6a $\alpha$ )-	8080 8270	1. 10.
Hexachlorobenzene	118-74-1	Benzene, hexachloro-	8120 8270	0.5 10.
Hexachlorobutadiene	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	8120 8270	5. 10.
Hexachlorocyclopentadiene	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-	8120 8270	5. 10.
Hexachloroethane	67-72-1	Ethane, hexachloro-	8120 8270	0.5 10.
Hexachlorophene	70-30-4	Phenol, 2,2'-methylenebis[3,4,6-trichloro-	8270	10.

Hexachloropropene	1888-71-7	1-Propene, 1,1,2,3,3,3-hexa- chloro-	8270	10.
2-Hexanone	591-78-6	2-Hexanone	8240	50.
Indeno(1,2,3-cd)- pyrene	193-39-5	Indeno[1,2,3-cd]- pyrene	8100 8270	200. 10.
Isobutyl alcohol	78-83-1	1-Propanol, 2- methyl-	8015	50.
Isodrin	465-73-6	1,4,5,8-Dimethano- naphthalene, 1,2,3,4,10,10-hexa- chloro- 1,4,4a,5,8,8a-hexa- hydro- (1 $\alpha$ ,4 $\alpha$ ,4 a $\beta$ ,5 $\beta$ ,8 $\beta$ , $\beta$ ,8a $\beta$ )-	8270	10.
Isophorone	78-59-1	2-Cyclohexen-1-one, 3,5,5-trimethyl-	8090 8270	60. 10.
Isosafrole	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-	8270	10.
Kepone	143-50-0	1,3,4-Metheno-2H- cyclobuta-[c,d]- pentalen-2-one, 1,1a,3,3a,4,5,5,5a, 5b,6-decachloro- octahydro-	8270	10.
Lead	(Total)	Lead	6010 7420 7421	40. 1000. 10.
Mercury	(Total)	Mercury	7470	2.
Methacrylonitrile	126-96-7	2-Propenenitrile, 2-methyl-	8015 8240	5. 5.
Methapyrilene	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N'-2- pyridinyl-N'-(2- thienylmethyl)-	8270	10.

Methoxychlor	72-43-5	Benzene, 1,1'- (2,2,2-trichloro- ethylidene)bis[4- methoxy-	8080 8270	2. 10.
Methyl bromide; Bromomethane	74-83-9	Methane, bromo-	8010 8240	20. 10.
Methyl chloride; Chloromethane	74-87-3	Methane, chloro-	8010 8240	1. 10.
3-Methyl- cholanthrene	56-49-5	Benz[j]- aceanthrylene, 1,2- dihydro-3-methyl-	8270	10.
Methylene bromide; Dibromomethane	74-95-3	Methane, dibromo-	8010 8240	15. 5.
Methylene chloride; Dichloromethane	75-09-2	Methane, dichloro-	8010 8240	5. 5.
Methyl ethyl ketone; MEK	78-93-3	2-Butanone	8015 8240	10. 100.
Methyl iodide; Iodomethane	74-88-4	Methane, iodo-	8010 8240	40. 5.
Methyl methacrylate	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester	8015 8240	2. 5.
Methyl methanesulfonate	66-27-3	Methanesulfonic acid, methyl ester	8270	10.
2-Methylnaphthalene	91-57-6	Naphthylene, 2- methyl-	8270	10.
Methyl parathion; Parathion methyl	298-00-0	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester	8140 8270	0.5 10.
4-Methyl-2-pentan- one; Methyl isobutyl ketone	108-10-1	2-Pentanone, 4- methyl-	8015 8240	5. 50.
Naphthalene	91-20-3	Naphthalene	8100 8270	200. 10.
1,4-Naphthoquinone	130-15-4	1,4- Naphthalenedione	8270	10.

1-Naphthylamine	134-32-7	1-Naphthalenamine	8270	10.
2-Naphthylamine	91-59-8	2-Naphthalenamine	8270	10.
Nickel	(Total)	Nickel	6010 7520	50. 400.
o-Nitroaniline	88-74-4	Benzenamine, 2-nitro-	8270	50.
m-Nitroaniline	99-09-2	Benzenamine, 3-nitro-	8270	50.
p-Nitroaniline	100-01-6	Benzenamine, 4-nitro-	8270	50.
Nitrobenzene	98-95-3	Benzene, nitro-	8090 8270	40. 10.
o-Nitrophenol	88-75-5	Phenol, 2-nitro-	8040 8270	5. 10.
p-Nitrophenol	100-02-7	Phenol, 4-nitro-	8040 8270	10. 50.
4-Nitroquinoline 1-oxide	56-57-5	Quinoline, 4-nitro-, 1-oxide	8270	10.
N-Nitrosodi-n-butylamine	924-16-3	1-Butanamine, N-butyl-N-nitroso-	8270	10.
N-Nitrosodiethylamine	55-18-5	Ethanamine, N-ethyl-N-nitroso-	8270	10.
N-Nitrosodimethylamine	62-75-9	Methanamine, N-methyl-N-nitroso-	8270	10.
N-Nitrosodiphenylamine	86-30-6	Benzenamine, N-nitroso-N-phenyl-	8270	10.
N-Nitrosodipropylamine; Di-n-propyl-nitrosamine	621-64-7	1-Propanamine, N-nitroso-N-propyl-	8270	10.
N-Nitrosomethyl-ethylamine	10595-95-6	Ethanamine, N-methyl-N-nitroso-	8270	10.
N-Nitrosomorpholine	59-89-2	Morpholine, 4-nitroso-	8270	10.

N-Nitrosopiperidene	100-75-4	Piperidene, 1-nitroso-	8270	10.
N-Nitrosopyrrolidine	930-55-2	Pyrrolidine, 1-nitroso-	8270	10.
5-Nitro-o-toluidine	99-55-8	Benzenamine, 2-methyl-5-nitro-	8270	10.
Parathion	56-38-2	Phosphorothioic acid, O,O-diethyl-O-(4-nitrophenyl) ester	8270	10.
Polychlorinated biphenyls; PCBs	See (g)	1,1'-Biphenyl, chloro derivatives	8080 8250	50. 100.
Polychlorinated dibenzo-p-dioxins; PCDDs	See (h)	Dibenzo[b,e][1,4]-dioxin, chloro derivatives	8280	0.01
Polychlorinated dibenzofurans; PCDFs	See (i)	Bibenzofuran, chloro derivatives	8280	0.01
Pentachlorobenzene	608-93-5	Benzene, penta-chloro-	8270	10.
Pentachloroethane	76-01-7	Ethane, penta-chloro-	8240 8270	5. 10.
Pentachloronitrobenzene	82-68-8	Benzene, penta-chloronitro-	8270	10.
Pentachlorophenol	87-86-5	Phenol, penta-chloro-	8040 8270	5. 50.
Phenacetin	62-44-2	Acetamide, N-(4-ethoxyphenyl)	8270	10.
Phenanthrene	85-01-8	Phenanthrene	8100 8270	200. 10.
Phenol	108-95-2	Phenol	8040 8270	1. 10.
p-Phenylenediamine	106-50-3	1,4-Benzenediamine	8270	10.
Phorate	298-02-2	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)-methyl] ester	8140 8270	2. 10.

2-Picoline	109-06-8	Pyridine, 2-methyl-	8240 8270	5. 10.
Pronamide	23950- 58-5	Benzamide, 3,5-di- chloro-N-(1,1-di- methyl-2-propenyl)-	8270	10.
Propionitrile; Ethyl cyanide	107-12-0	Propanenitrile	8015 8240	60. 5.
Pyrene	129-00-0	Pyrene	8100 8270	200. 10.
Pyridine	110-86-1	Pyridine	8240 8270	5. 10.
Safrole	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-	8270	10.
Selenium	(Total)	Selenium	6010 7740 7741	750. 20. 20.
Silver	(Total)	Silver	6010 7760	70. 100.
Silvex; 2,4,5-TP	93-72-1	Propanoic acid, 2- (2,4,5-trichloro- phenoxy)-	8150	2.
Styrene	100-42-5	Benzene, ethenyl-	8020 8240	1. 5.
Sulfide	18496- 25-8	Sulfide	9030	10000.
2,4,5-T; 2,4,5-Tri- chlorophenoxyacetic acid	93-76-5	Acetic acid, (2,4,5-trichloro- phenoxy)-	8150	2.
2,3,7,8-TCDD; 2,3,7,8-Tetra- chlorodibenzo-p- dioxin	1746-01- 8	Dibenzo[b,e][1,4]- dioxin, 2,3,7,8- tetrachloro-	8280	0.005
1,2,4,5-Tetra- chlorobenzene	95-94-3	Benzene, 1,2,4,5- tetrachloro-	8270	10.
1,1,1,2-Tetra- chloroethane	630-20-6	Ethane, 1,1,1,2- tetrachloro-	8010 8240	5. 5.

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1,1,2,2,-Tetra- chloroethane	79-34-5	Ethane, 1,1,2,2- tetrachloro-	8010 8240	0.5 5.
Tetrachloro- ethylene; Perchloroethylene; Tetrachloroethene	127-18-4	Ethene, tetra- chloro-	8010 8240	0.5 5.
2,3,4,6-Tetra- chlorophenol	58-90-2	Phenol, 2,3,4,6- tetrachloro-	8270	10.
Tetraethyl dithio- pyrophosphate; Sulfotepp	3689-24- 5	Thiodiphosphoric acid ([(HO)2P(S)]2O), tetraethyl ester	8270	10.
Thallium	(Total)	Thallium	6010 7840 7841	400. 1000. 10.
Tin	(Total)	Tin	7870	8000.
Toluene	108-88-3	Benzene, methyl-	8020 8240	2. 5.
o-Toluidine	95-53-4	Benzenamine, 2- methyl-	8270	10.
Toxaphene	8001-35- 2	Toxaphene	8080 8250	2. 10.
1,2,4-Trichloro- benzene	120-82-1	Benzene, 1,2,4-tri- chloro-	8270	10.
1,1,1-Trichloro- ethane; Methyl chloroform	71-55-6	Ethane, 1,1,1-tri- chloro-	8240	5.
1,1,2-Trichloro- ethane	79-00-5	Ethane, 1,1,2-tri- chloro-	8010 8240	0.2 5.
Trichloroethylene; Trichloroethene	79-01-6	Ethene, trichloro-	8010 8240	1. 5.
Trichlorofluoro- methane	75-69-4	Methane, trichloro- fluoro-	8010 8240	10. 5.
2,4,5-Trichloro- phenol	95-96-4	Phenol, 2,4,5-tri- chloro-	8270	10.

2,4,6-Trichloro-phenol	88-06-2	Phenol, 2,4,6-tri-chloro-	8040 8270	5. 10.
1,2,3-Trichloro-propane	96-18-4	Propane, 1,2,3-tri-chloro-	8010 8240	10. 5.
O,O,O-Triethyl phosphorothioate	126-68-1	Phosphorothioic acid, O,O,O-triethyl ester	8270	10.
sym-Trinitrobenzene	99-35-4	Benzene, 1,3,5-tri-nitro-	8270	10.
Vanadium	(Total)	Vanadium	6010 7910 7911	80. 2000. 40.
Vinyl acetate	108-05-4	Acetic acid, ethenyl ester	8240	5.
Vinyl chloride	75-01-4	Ethene, chloro-	8010 8240	2. 10.
Xylene (total)	1330-20-7	Benzene, dimethyl-	8020 8240	5. 5.
Zinc	(Total)	Zinc	6010 7950	20. 50.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

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

PART 725  
INTERIM STATUS STANDARDS FOR OWNERS AND OPERATORS OF  
HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL  
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AUTHORITY: Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/22.4 and 27].

SOURCE: Adopted in R81-22, 43 PCB 427, at 5 Ill. Reg. 9781, effective May 17, 1982; amended and codified in R81-22, 45 PCB 317, at 6 Ill. Reg. 4828, effective May 17, 1982; amended in R82-18, 51 PCB 831, at 7 Ill. Reg. 2518, effective February 22, 1983; amended in R82-19, 53 PCB 131, at 7 Ill. Reg. 14034, effective October 12, 1983; amended in R84-9, at 9 Ill. Reg. 11869, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 1085, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 14069, effective August 12, 1986; amended in R86-28 at 11 Ill. Reg. 6044, effective March 24, 1987; amended in R86-46 at 11 Ill. Reg. 13489, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19338, effective November 10, 1987; amended in R87-26 at 12 Ill. Reg. 2485, effective January 15, 1988; amended in R87-39 at 12 Ill. Reg. 13027, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 437, effective December 28, 1988; amended in R89-1 at 13 Ill. Reg. 18354, effective November 13, 1989; amended in R90-2 at 14 Ill. Reg. 14447, effective August 22, 1990; amended in R90-10 at 14 Ill. Reg. 16498, effective September 25, 1990; amended in R90-11 at 15 Ill. Reg. 9398, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14534, effective October 1, 1991; amended in R91-13 at 16 Ill. Reg. 9578, effective June 9, 1992; amended in R92-1 at 16 Ill. Reg. 17672, effective November 6, 1992; amended in R92-10 at 17 Ill. Reg. 5681, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20620, effective November 22, 1993; amended in R93-16 at 18 Ill. Reg. 6771,

effective April 26, 1994; amended in R94-7 at 18 Ill. Reg. 12190, effective July 29, 1994; amended in R94-17 at 18 Ill. Reg. 17548, effective November 23, 1994; amended in R95-6 at 19 Ill. Reg. 9566, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 11078, effective August 1, 1996; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 369, effective December 16, 1997; amended in R98-12 at 22 Ill. Reg. 7620, effective April 15, 1998; amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

#### SUBPART A: GENERAL PROVISIONS

##### Section 725.101 Purpose, Scope and Applicability

- a) The purpose of this Part is to establish minimum standards that define the acceptable management of hazardous waste during the period of interim status and until certification of final closure or, if the facility is subject to post-closure requirements, until post-closure responsibilities are fulfilled.
- b) Except as provided in Section 725.980(b), the standards in this Part and 35 Ill. Adm. Code 724.652 and 724.653 apply to owners and operators of facilities that treat, store, or dispose of hazardous waste that have fully complied with the requirements for interim status under Section 3005(e) of the Resource Conservation and Recovery Act (RCRA) (42 U.S.C. 6901 et seq.) and 35 Ill. Adm. Code 703, until either a permit is issued under Section 3005 of the Resource Conservation and Recovery Act or Section 21(f) of the Environmental Protection Act, or until applicable closure and post-closure responsibilities under this Part are fulfilled, and to those owners and operators of facilities in existence on November 19, 1980, that have failed to provide timely notification as required by Section 3010(a) of RCRA or that have failed to file Part A of the Permit Application, as required by 40 CFR 270.10(e) and (g) or 35 Ill. Adm. Code 703.150 and 703.152. These standards apply to all treatment, storage, or disposal of hazardous waste at these facilities after November 19, 1980, except as specifically provided otherwise in this Part or 35 Ill. Adm. Code 721.

BOARD NOTE: As stated in Section 3005(a) of RCRA, after the effective date of regulations under that Section (i.e., 40 CFR 270 and 124) the treatment, storage, or disposal of hazardous waste is prohibited except in accordance with a permit. Section 3005(e) of RCRA provides for the continued operation of an existing facility that meets certain conditions until

final administrative disposition of the owner's and operator's permit application is made. 35 Ill. Adm. Code 703.140 et seq. provide that a permit is deemed issued under Section 21(f)(1) of the Environmental Protection Act under conditions similar to federal interim status.

c) The requirements of this Part do not apply to:

- 1) A person disposing of hazardous waste by means of ocean disposal subject to a permit issued under the Marine Protection, Research and Sanctuaries Act (16 U.S.C. 1431-1434; 33 U.S.C. 1401);

BOARD NOTE: This Part applies to the treatment or storage of hazardous waste before it is loaded into an ocean vessel for incineration or disposal at sea, as provided in subsection (b) above.

2) This subsection corresponds with 40 CFR 265.1(c)-(2), marked "reserved" by USEPA. This statement maintains structural consistency with USEPA rules.

- 3) The owner or operator of a POTW (publicly owned treatment works) that treats, stores or disposes of hazardous waste;

BOARD NOTE: The owner or operator of a facility under subsections (c)(1) ~~through~~ (c)(3) is subject to the requirements of 35 Ill. Adm. Code 724 to the extent they are included in a permit by rule granted to such a person under 35 Ill. Adm. Code 702 and 703 or are required by 35 Ill. Adm. Code 704.Subpart F.

4) This subsection corresponds with 40 CFR 265.1(c)-(4), which pertains exclusively to the applicability of the federal regulations in authorized states. There is no need for a parallel provision in the Illinois regulations. This statement maintains structural consistency with USEPA rules

- 5) The owner or operator of a facility permitted, licensed, or registered by Illinois to manage municipal or industrial solid waste, if the only hazardous waste the facility treats, stores, or disposes of is excluded from regulation under this Part by 35 Ill. Adm. Code 721.105;
- 6) The owner or operator of a facility managing recyclable materials described in 35 Ill. Adm.

Code 721.106(a)(2) through (a)(4), except to the extent that requirements of this Part are referred to in 35 Ill. Adm. Code 726.Subparts C, F, G, or H or 35 Ill. Adm. Code 739;

- 7) A generator accumulating waste on-site in compliance with 35 Ill. Adm. Code 722.134, except to the extent the requirements are included in 35 Ill. Adm. Code 722.134;
- 8) A farmer disposing of waste pesticides from the farmer's own use in compliance with 35 Ill. Adm. Code 722.170;
- 9) The owner or operator of a totally enclosed treatment facility, as defined in 35 Ill. Adm. Code 720.110;
- 10) The owner or operator of an elementary neutralization unit or a wastewater treatment unit as defined in 35 Ill. Adm. Code 720.110, provided that if the owner or operator is diluting hazardous ignitable (D001) wastes (other than the D001 High TOC Subcategory defined in 35 Ill. Adm. Code 728.Table T) or reactive (D003) waste in order to remove the characteristic before land disposal, the owner or operator must comply with the requirements set out in Section 725.117(b);
- 11) Immediate response:
  - A) Except as provided in subsection (c)(11)(B) below, a person engaged in treatment or containment activities during immediate response to any of the following situations:
    - i) A discharge of a hazardous waste;
    - ii) An imminent and substantial threat of a discharge of a hazardous waste;
    - iii) A discharge of a material that becomes a hazardous waste when discharged ~~;~~ or
    - iv) An immediate threat to human health, public safety, property, or the environment from the known or suspected presence of military munitions, other explosive material, or an explosive device, as determined by an explosive or munitions emergency response specialist as defined in 35 Ill. Adm. Code 720.110.

- B) An owner or operator of a facility otherwise regulated by this Part must comply with all applicable requirements of 725.Subparts C and D.
- C) Any person that is covered by subsection (c)-(11)(A) above that continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of this Part and 35 Ill. Adm. Code 702, 703, and 705 for those activities;

D) In the case of an explosives or munitions emergency response, if a federal, state, or local official acting within the scope of his or her official responsibilities or an explosives or munitions emergency response specialist determines that immediate removal of the material or waste is necessary to protect human health or the environment, that official or specialist may authorize the removal of the material or waste by transporters who do not have USEPA identification numbers and without the preparation of a manifest. In the case of emergencies involving military munitions, the responding military emergency response specialist's organizational unit shall retain records for three years identifying the dates of the response, the responsible persons responding, the type and description of material addressed, and its disposition.

- 12) A transporter storing manifested shipments of hazardous waste in containers meeting the requirements of 35 Ill. Adm. Code 722.130 at a transfer facility for a period of ten days or less;
- 13) The addition of absorbent material to waste in a container (as defined in 35 Ill. Adm. Code 720.110) or the addition of waste to the absorbent material in a container, provided that these actions occur at the time that the waste is first placed in the containers and Sections 725.117(b), 725.271, and 725.272 are complied with;
- 14) A universal waste handler or universal waste transporter (as defined in 35 Ill. Adm. Code 720.110) that handles any of the wastes listed

below is subject to regulation under 35 Ill. Adm. Code 733 when handling the following universal wastes:

- A) Batteries, as described in 35 Ill. Adm. Code 733.102;
- B) Pesticides, as described in 35 Ill. Adm. Code 733.103;
- C) Thermostats, as described in 35 Ill. Adm. Code 733.104 and; and
- D) Mercury-containing lamps, as described in 35 Ill. Adm. Code 733.107.

BOARD NOTE: Subsection (c)(14)(D) of this Section was added pursuant to Section 22.23a of the Act [415 ILCS 5/22.23a] (see P.A. 90-502, effective August 19, 1997).

- d) The following hazardous wastes must not be managed at facilities subject to regulation under this Part: hazardous waste numbers F020, F021, F022, F023, F026, or F027 unless:
  - 1) The wastewater treatment sludge is generated in a surface impoundment as part of the plant's wastewater treatment system;
  - 2) The waste is stored in tanks or containers;
  - 3) The waste is stored or treated in waste piles that meet the requirements of 35 Ill. Adm. Code 724.350(c) and all other applicable requirements of 725.Subpart L;
  - 4) The waste is burned in incinerators that are certified pursuant to the standards and procedures in Section 725.452; or
  - 5) The waste is burned in facilities that thermally treat the waste in a device other than an incinerator and that are certified pursuant to the standards and procedures in Section 725.483.
- e) This Part applies to owners and operators of facilities that treat, store, or dispose of hazardous wastes referred to in 35 Ill. Adm. Code 728, and the 35 Ill. Adm. Code 728 standards are considered material conditions or requirements of the interim status standards of this Part.

f) 35 Ill. Adm. Code 726.505 identifies when the requirements of this Part apply to the storage of military munitions classified as solid waste under 35 Ill. Adm. Code 726.302. The treatment and disposal of hazardous waste military munitions are subject to the applicable permitting, procedural, and technical standards in 35 Ill. Adm. Code 702, 703, 705, 720 through 726, and 728.

fg) Other bodies of regulations may apply a person, facility, or activity, such as 35 Ill. Adm. Code 809 (special waste hauling), 35 Ill. Adm. Code 807 or 810 through 817 (solid waste landfills), 35 Ill. Adm. Code 848 or 849 (used and scrap tires), or 35 Ill. Adm. Code 1420 through 1422 (potentially infectious medical waste), depending on the provisions of those other regulations.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART B: GENERAL FACILITY STANDARDS

##### Section 725.112 Required Notices

- a) Receipt from a foreign source.
  - 1) The owner or operator of a facility that has arranged to receive hazardous waste from a foreign source must notify the Regional Administrator in writing at least four weeks in advance of the date the waste is expected to arrive at the facility. Notice of subsequent shipments of the same waste from the same foreign source is not required.
  - 2) The owner or operator of a recovery facility that has arranged to receive hazardous waste subject to 35 Ill. Adm. Code 722.Subpart H must provide a copy of the tracking document bearing all required signatures to the notifier, to the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 401 M St., SW, Washington, DC 20460; to the Bureau of Land, Division of Land Pollution Control, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, IL 62794-9276; and to the competent authorities of all other concerned countries within three working days of receipt of the shipment. The original of the signed tracking

document must be maintained at the facility for at least three years.

- b) Before transferring ownership or operation of a facility during its operating life, or of a disposal facility during the post-closure care period, the owner or operator must notify the new owner or operator in writing of the requirements of this Part and 35 Ill. Adm. Code 702 and 703 (~~Aa~~ also see ~~40~~ 35 Ill. Adm. Code 703.155.)

BOARD NOTE: An owner's or operator's failure to notify the new owner or operator of the requirements of this Part in no way relieves the new owner or operator of his obligation to comply with all applicable requirements.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### Section 725.113 General Waste Analysis

- a) Waste analysis:
- 1) Before an owner or operator treats, stores, or disposes of any hazardous wastes, or non-hazardous wastes if applicable under Section 725.213(d), the owner or operator shall obtain a detailed chemical and physical analysis of a representative sample of the wastes. At a minimum, the analysis must contain all the information that must be known to treat, store, or dispose of the waste in accordance with this Part and 35 Ill. Adm. Code 728.
  - 2) The analysis may include data developed under 35 Ill. Adm. Code 721 and existing published or documented data on the hazardous waste or on waste generated from similar processes.

BOARD NOTE: For example, the facility's record of analyses performed on the waste before the effective date of these regulations or studies conducted on hazardous waste generated from processes similar to that which generated the waste to be managed at the facility may be included in the data base required to comply with subsection (a)(1) of this Section, except as otherwise specified in 35 Ill. Adm. Code 728.107(b) and (c). The owner or operator of an off-site facility may arrange for the generator of the hazardous waste to supply part or all of the

information required by subsection (a)(1) of this Section. If the generator does not supply the information and the owner or operator chooses to accept a hazardous waste, the owner or operator is responsible for obtaining the information required to comply with this Section.

- 3) The analysis must be repeated as necessary to ensure that it is accurate and up to date. At a minimum, the analysis must be repeated:
    - A) When the owner or operator is notified or has reason to believe that the process or operation generating the hazardous waste, or non-hazardous waste if applicable under Section 725.213(d), has changed; and
    - B) For off-site facilities, when the results of the inspection required in subsection (a)(4) of this Section indicate that the hazardous waste received at the facility does not match the waste designated on the accompanying manifest or shipping paper.
  - 4) The owner or operator of an off-site facility shall inspect and, if necessary, analyze each hazardous waste movement received at the facility to determine whether it matches the identity of the waste specified on the accompanying manifest or shipping paper.
- b) The owner or operator shall develop and follow a written waste analysis plan that describes the procedures that the owner or operator will carry out to comply with subsection (a) of this Section. The owner or operator shall keep this plan at the facility. At a minimum, the plan must specify:
- 1) The parameters for which each hazardous waste, or non-hazardous waste if applicable under Section 725.213(d), will be analyzed and the rationale for the selection of these parameters (i.e., how analysis for these parameters will provide sufficient information on the waste's properties to comply with subsection (a) of this Section.
  - 2) The test methods that will be used to test for these parameters.
  - 3) The sampling method that will be used to obtain a representative sample of the waste to be

analyzed. A representative sample may be obtained using either:

- A) One of the sampling methods described in 35 Ill. Adm. Code 721.Appendix A, or
- B) An equivalent sampling method.

BOARD NOTE: See 35 Ill. Adm. Code 720.120(c) for related discussion.

- 4) The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up-to-date.
- 5) For off-site facilities, the waste analyses that hazardous waste generators have agreed to supply.
- 6) Where applicable, the methods that will be used to meet the additional waste analysis requirements for specific waste management methods, as specified in Sections 725.300, 725.325, 725.352, 725.373, 725.414, 725.441, 725.475, 725.502, 725.934(d), 725.963(d), and 725.984, and 35 Ill. Adm. Code 728.107.
- 7) For surface impoundments exempted from land disposal restrictions under 35 Ill. Adm. Code 728.104(a), the procedures and schedules for:
  - A) The sampling of impoundment contents;
  - B) The analysis of test data; and
  - C) The annual removal of residues that are not delisted under 35 Ill. Adm. Code 720.122 or that exhibit a characteristic of hazardous waste and either:
    - i) Do not meet the applicable treatment standards of 35 Ill. Adm. Code 728.Subpart D, or
    - ii) Where no treatment standards have been established: Such residues are prohibited from land disposal under 35 Ill. Adm. Code 728.132 or 728.139.
- 8) For owners and operators seeking an exemption to the air emission standards of 724.Subpart CC in accordance with Section 725.983:

- A) If direct measurement is used for the waste determination, the procedures and schedules for waste sampling and analysis, and the analysis of test data to verify the exemption.
  - B) If knowledge of the waste is used for the waste determination, any information prepared by the facility owner or operator, or by the generator of the waste if the waste is received ~~form-from~~ off-site, that is used as the basis for knowledge of the waste.
- c) For off-site facilities, the waste analysis plan required in subsection (b) of this Section must also specify the procedures that will be used to inspect and, if necessary, analyze each movement of hazardous waste received at the facility to ensure that it matches the identity of the waste designated on the accompanying manifest or shipping paper. At a minimum, the plan must describe:
- 1) The procedures that will be used to determine the identity of each movement of waste managed at the facility; and
  - 2) The sampling method that will be used to obtain a representative sample of the waste to be identified if the identification method includes sampling.
  - 3) The procedures that the owner or operator of an off-site landfill receiving containerized hazardous waste will use to determine whether a hazardous waste generator or treater has added a biodegradable sorbent to the waste in the container.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART E: MANIFEST SYSTEM, RECORDKEEPING AND REPORTING

##### Section 725.170            Applicability

The regulations in this subpart apply to owners and operators of both on-site and off-site facilities, except as Section 725.101 provides otherwise. Sections 725.171, 725.172 and 725.176 do not apply to owners and operators of on-site facilities that do not receive any hazardous waste from off-site sources, nor do they

apply to owners and operators of off-site facilities with respect to waste military munitions exempted from manifest requirements under 35 Ill. Adm. Code 726.303(a).

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 725.171 Use of Manifest System

- a) If a facility receives hazardous waste accompanied by a manifest, the owner or operator or his agent must:
- 1) Sign and date each copy of the manifest to certify that the hazardous waste covered by the manifest was received;
  - 2) Note any significant discrepancies in the manifest, as defined in Section 725.172(a), on each copy of the manifest;
- BOARD NOTE: An owner or operator of a facility whose procedures under Section 725.113(c) include waste analysis need not perform that analysis before signing the manifest and giving it to the transporter. Section 725.172(b), however, requires the owner or operator to report any unreconciled discrepancy discovered during later analysis.
- 3) Immediately give the transporter at least one copy of the signed manifest;
  - 4) Send a copy of the manifest to ~~each of~~ the generator and the Agency within 30 days of the date of delivery; and
  - 5) Retain at the facility a copy of each manifest for at least three years from the date of delivery.
- b) If a facility receives from a rail or water (bulk shipment) transporter hazardous waste that is accompanied by a shipping paper containing all the information required on the manifest (excluding the USEPA identification numbers, generator's certification and signatures), the owner or operator or its agent must:
- 1) Sign and date each copy of the manifest or shipping paper (if the manifest has not been received) to certify that the hazardous waste covered by the manifest or shipping paper was received;

- 2) Note any significant discrepancies, as defined in Section 725.172(a), in the manifest or shipping paper (if the manifest has not been received) on each copy of the manifest or shipping paper;

BOARD NOTE: The owner or operator of a facility whose procedures under Section 725.113(c) include waste analysis need not perform that analysis before signing the shipping paper and giving it to the transporter. Section 725.172(b), however, requires reporting an unreconciled discrepancy discovered during later analysis.

- 3) Immediately give the rail or water (bulk shipment) transporter at least one copy of the manifest or shipping paper (if the manifest has not been received);
- 4) Send a copy of the signed and dated manifest to the generator and to the Agency within 30 days after the delivery; however, if the manifest has not been received within 30 days after delivery, the owner or operator, or his agent, must send a copy of the shipping paper signed and dated to the generator; and

BOARD NOTE: 35 Ill. Adm. Code 722.123(c) requires the generator to send three copies of the manifest to the facility when hazardous waste is sent by rail or water (bulk shipment).

- 5) Retain at the facility a copy of the manifest and shipping paper (if signed in lieu of the manifest at the time of delivery) for at least three years from the date of delivery.

- c) Whenever a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility must comply with the requirements of 35 Ill. Adm. Code 722.

BOARD NOTE: The provisions of 35 Ill. Adm. Code 722.134 are applicable to the on-site accumulation of hazardous wastes by generators. Therefore, the provisions of 35 Ill. Adm. Code 722.134 apply only to owners or operators that are shipping hazardous waste that they generated at that facility.

- d) Within three working days of the receipt of a shipment subject to 35 Ill. Adm. Code 722.Subpart H, the owner or operator of the facility must provide a copy of the

tracking document bearing all required signatures to the notifier; to the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 401 M St., SW, Washington, DC 20460; to the Bureau of Land, Division of Land Pollution Control, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, IL 62794-9276; and to competent authorities of all other concerned countries. The original copy of the tracking document must be maintained at the facility for at least three years from the date of signature.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART J: TANK SYSTEMS

##### Section 725.298 Special Requirements for Ignitable or Reactive Waste

- a) Ignitable or reactive waste must not be placed in a tank system, unless:
  - 1) The waste is treated, rendered or mixed before or immediately after placement in the tank system so that
    - A) The resulting waste, mixture or dissolved material no longer meets the definition of ignitable or reactive waste under 35 Ill. Adm. Code 721.121 or 721.123 and
    - B) Section 725.117(b) is complied with; or
  - 2) The waste is stored or treated in such a way that it is protected from any material or conditions which may cause the waste to ignite or react; or
  - 3) The tank system is used solely for emergencies.
- b) The owner or operator of a facility where ignitable or reactive waste is stored or tested in tanks shall comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys or an adjoining property line that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code," **NFPA 30,** incorporated by reference in 35 Ill. Adm. Code 720.111.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 725.301 Generators of 100 to 1000 ~~kg/mo~~ **Kilograms of Hazardous Waste Per Month**

- a) The requirements of this Section apply to small quantity generators that generate more than 100 kg but less than 1000 kg of hazardous waste in a calendar month, that accumulate hazardous waste in tanks for less than 180 days (or 270 days if the generator must ship the waste greater than 200 miles), and that do not accumulate over 6,000 kg on-site at any time.
- b) A generator of between 100 and 1000 kg/mo hazardous waste shall comply with the following general operating requirements:
  - 1) Treatment or storage of hazardous waste in tanks must comply with Section 725.117(b);
  - 2) Hazardous wastes or treatment reagents must not be placed in a tank if they could cause the tank or its inner liner to rupture, leak, corrode, or otherwise fail before the end of its intended life;
  - 3) Uncovered tanks must be operated to ensure at least 60 centimeters (2 feet) of freeboard unless the tank is equipped with a containment structure (e.g., dike or trench), a drainage control system, or a diversion structure (e.g., standby tank) with a capacity that equals or exceeds the volume of the top 60 centimeters (2 feet) of the tank; and
  - 4) Where hazardous waste is continuously fed into a tank, the tank must be equipped with a means to stop this inflow (e.g., waste feed cutoff system or by-pass system to a stand-by tank).

BOARD NOTE: These systems are intended to be used in the event of a leak or overflow from the tank due to a system failure (e.g., a malfunction in the treatment process, a crack in the tank, etc.).

- c) A generator of between 100 and 1000 kg/mo accumulating hazardous waste in tanks shall inspect, where present:
  - 1) Discharge control equipment (e.g., waste feed cutoff systems, by-pass systems, and drainage

systems) at least once each operating day, to ensure that it is in good working order;

- 2) Data gathered from monitoring equipment (e.g., pressure and temperature gauges) at least once each operating day to ensure that the tank is being operated according to its design;
- 3) The level of waste in the tank at least once each operating day to ensure compliance with subsection (b)(3) above;
- 4) The construction materials of the tank at least weekly to detect corrosion or leaking of fixtures or seams; and
- 5) The construction materials of and the area immediately surrounding discharge confinement structures (e.g., dikes) at least weekly to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).

BOARD NOTE: As required by Section 725.115(c), the owner or operator must remedy any deterioration or malfunction the owner or operator finds.

- d) A generator of between 100 and 1000 kg/mo accumulating hazardous waste in tanks shall, upon closure of the facility, remove all hazardous waste from tanks, discharge control equipment and discharge confinement structures.

BOARD NOTE: At closure, as throughout the operating period, unless the owner or operator demonstrates, in accordance with 35 Ill. Adm. Code 721.103(d) or (e), that any solid waste removed from the tank is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of 35 Ill. Adm. Code 722, 723, and 725.

- e) A generator of between 100 and 1000 kg/mo shall comply with the following special requirements for ignitable or reactive waste:
  - 1) Ignitable or reactive waste must not be placed in a tank unless:
    - A) The waste is treated, rendered, or mixed before or immediately after placement in a tank so that;

- i) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under 35 Ill. Adm. Code 721.121 or 721.123, and
    - ii) Section 725.117(b) is complied with;
  - B) The waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to ignite or react; or
  - C) The tank is used solely for emergencies.
- 2) The owner or operator of a facility that treats or stores ignitable or reactive waste in covered tanks shall comply with the buffer zone requirements for tanks contained in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code," **NFPA 30**, incorporated by reference in 35 Ill. Adm. Code 720.111.
- f) A generator of between 100 and 1000 kg/mo shall comply with the following special requirements for incompatible wastes:
- 1) Incompatible wastes or incompatible wastes and materials (see Appendix E for examples) must not be placed in the same tank unless Section 725.117(b) is complied with.
  - 2) Hazardous waste must not be placed in an unwashed tank that previously held an incompatible waste or material unless Section 725.117(b) is complied with.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART N: LANDFILLS

##### Section 725.414 Special Requirements for Liquid Wastes

- a) This subsection corresponds with 40 CFR 265.314(a), which pertains to the placement of bulk or non-containerized liquid waste or waste containing free liquids in a landfill prior to May 8, 1985. This

statement maintains structural consistency with USEPA rules.

- b) The placement of bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids (whether or not sorbents have been added) in any landfill is prohibited.
- c) Containers holding free liquids must not be placed in a landfill unless:
  - 1) All free-standing liquid:
    - A) has been removed by decanting or other methods;
    - B) has been mixed with sorbent or solidified so that free-standing liquid is no longer observed; or
    - C) has been otherwise eliminated; or
  - 2) The container is very small, such as an ampule; or
  - 3) The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or
  - 4) The container is a lab pack as defined in Section 724.416 and is disposed of in accordance with Section 724.416.
- d) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 9095 (Paint Filter Liquids Test), as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", USEPA Publication No. SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111.
- e) The placement of any liquids that is not a hazardous waste in a landfill is prohibited (35 Ill. Adm. Code 729.311).
- f) Sorbents used to treat free liquids to be disposed of in landfills must be nonbiodegradable. Nonbiodegradable sorbents are: materials listed or described in subsection (f)(1) of this Section; materials that pass one of the tests in subsection (f)-(2) of this Section; or materials that are determined by the Board to be nonbiodegradable through the 35 Ill. Adm. Code 106 adjusted standard process.

- 1) Nonbiodegradable sorbents are:
  - A) Inorganic minerals, other inorganic materials, and elemental carbon (e.g., aluminosilicates, clays, smectites, Fuller's earth, bentonite, calcium bentonite, montmorillonite, calcined montmorillonite, kaolinite, micas (illite), vermiculites, zeolites; calcium carbonate (organic free limestone); oxides/hydroxides, alumina, lime, silica (sand), diatomaceous earth; perlite (volcanic glass); expanded volcanic rock; volcanic ash; cement kiln dust; fly ash; rice hull ash; activated charcoal/activated carbon); or
  - B) High molecular weight synthetic polymers (e.g., polyethylene, high density polyethylene (HDPE), polypropylene, polystyrene, polyurethane, polyacrylate, polynorborene, polyisobutylene, ground synthetic rubber, cross-linked allylstyrene and tertiary butyl copolymers). This does not include polymers derived from biological material or polymers specifically designed to be degradable; or
  - C) Mixtures of these nonbiodegradable materials.
- 2) Tests for nonbiodegradable sorbents.
  - A) The sorbent material is determined to be nonbiodegradable under ASTM Method G21-70 (1984a)--"Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi", incorporated by reference in 35 Ill. Adm. Code 720.111;
  - B) The sorbent material is determined to be nonbiodegradable under ASTM Method G22-76 (1984b)--"Standard Practice for Determining Resistance of Plastics to Bacteria", incorporated by reference in 35 Ill. Adm. Code 720.111; or
  - C) The sorbent material is determined to be nonbiodegradable under OECD test 301B (CO<sub>2</sub> Evolution (Modified Sturm Test)), incorporated by reference in 35 Ill. Adm. Code 720.111.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

SUBPART AA: AIR EMISSION STANDARDS FOR PROCESS VENTS

Section 725.933 Standards: Closed-~~vent~~Vent Systems and Control Devices

- a) Compliance Required.
- 1) Owners or operators of closed-vent systems and control devices used to comply with provisions of this Part shall comply with the provisions of this Section.
  - 2) The owner or operator of an existing facility that cannot install a closed-vent system and control device to comply with the provisions of this Subpart on the effective date that the facility becomes subject to the provisions of this Subpart shall prepare an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The controls must be installed as soon as possible, but the implementation schedule may allow up to 30 months after the effective date that the facility becomes subject to this Subpart for installation and startup. All units that begin operation after December 21, 1990, must comply with the rules immediately (i.e., must have control devices installed and operating on startup of the affected unit); the 2-year implementation schedule does not apply to these units.
- b) A control device involving vapor recovery (e.g., a condenser or adsorber) must be designed and operated to recover the organic vapors vented to it with an efficiency of 95 weight percent or greater unless the total organic emission limits of Section 725.932(a)(1) for all affected process vents is attained at an efficiency less than 95 weight percent.
- c) An enclosed combustion device (e.g., a vapor incinerator, boiler, or process heater) must be designed and operated to reduce the organic emissions vented to it by 95 weight percent or greater; to achieve a total organic compound concentration of 20 ppmv, expressed as the sum of the actual compounds, not carbon equivalents, on a dry basis corrected to three percent oxygen; or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760° C. If

a boiler or process heater is used as the control device, then the vent stream must be introduced into the flame combustion zone of the boiler or process heater.

d) Flares.

- 1) A flare must be designed for and operated with no visible emissions as determined by the methods specified in subsection (e)(1) of this Section except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
- 2) A flare must be operated with a flame present at all times, as determined by the methods specified in subsection (f)(2)(c) of this Section.
- 3) A flare must be used only if the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted, or if the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted must be determined by the methods specified in subsection (e)(2) of this Section.
- 4) Exit Velocity.
  - A) A steam-assisted or nonassisted flare must be designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this Section, less than 18.3 m/s (60 ft/s), except as provided in subsections (d)(4)(B) and (d)(4)(C) of this Section.
  - B) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this Section, equal to or greater than 18.3 m/s (60 ft/s) but less than 122 m/s (400 ft/s) is allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1000 Btu/scf).
  - C) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this Section, less than the velocity,  $V$  as

determined by the method specified in subsection (e)(4) and less than 122 m/s (400 ft/s) is allowed.

- 5) An air-assisted flare must be designed and operated with an exit velocity less than the velocity, V as determined by the method specified in subsection (e)(5) of this Section.
  - 6) A flare used to comply with this Section must be steam-assisted, air-assisted, or nonassisted.
- e) Compliance determination and equations.
- 1) Reference Method 22 in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111, must be used to determine the compliance of a flare with the visible emission provisions of this Subpart. The observation period is 2 hours and must be used according to Method 22.
  - 2) The net heating value of the gas being combusted in a flare must be calculated using the following equation:

$$H_T = K \times \sum_{i=1}^n C_i \times H_i$$

Where:

$H_T$  is the net heating value of the sample in MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25° C and 760 mm Hg, but the standard temperature for determining the volume corresponding to 1 mole is 20° C.

$K = 1.74 \times 10^{-7}$  (1/ppm)(g mol/scm)(MJ/kcal)  
where the standard temperature for (g mol/scm) is 20° C.

$\sum X_i$  means the sum of the values of X for each component i, from i=1 to n.

$C_i$  is the concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 in 40 CFR 60,

and for carbon monoxide, by ASTM D 1946-90, incorporated by reference in 35 Ill. Adm. Code 720.111.

$H_i$  is the net heat of combustion of sample component  $i$ , kcal/gmol at 25° C and 760 mm Hg. The heats of combustion must be determined using ASTM D 2382-88, incorporated by reference in 35 Ill. Adm. Code 720.111, if published values are not available or cannot be calculated.

- 3) The actual exit velocity of a flare must be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.
- 4) The maximum allowed velocity in m/s,  $V$  for a flare complying with subsection (d)(4)(C) of this Section must be determined by the following equation:

$$\log_{10}(V_{\max}) = \frac{H_T + 28.8}{31.7}$$

Where:

$\log_{10}$  means logarithm to the base 10

$H_T$  is the net heating value as determined in subsection (e)(2) of this Section.

- 5) The maximum allowed velocity in m/s,  $V$  for an air-assisted flare must be determined by the following equation:

$$V = 8.706 + 0.7084 H_T$$

Where:

$H_T$  is the net heating value as determined in subsection (e)(2) of this Section.

- f) The owner or operator shall monitor and inspect each control device required to comply with this Section to ensure proper operation and maintenance of the control device by implementing the following requirements:
- 1) Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow indicator that provides a record of vent stream flow from each affected process vent to the control device at least once every hour. The flow indicator sensor must be installed in the vent stream at the nearest feasible point to the control device inlet but before being combined with other vent streams.
  - 2) Install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor control device operation as specified below:
    - A) For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device must have accuracy of  $\pm 1\%$  of the temperature being monitored in  $^{\circ}\text{C}$  or  $\pm 0.5^{\circ}\text{C}$ , whichever is greater. The temperature sensor must be installed at a location in the combustion chamber downstream of the combustion zone.
    - B) For a catalytic vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature at two locations and have an accuracy of  $\pm 1\%$  of the temperature being monitored in  $^{\circ}\text{C}$  or  $\pm 0.5^{\circ}\text{C}$ , whichever is greater. One temperature sensor must be installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature sensor must be installed in the vent stream at the nearest feasible point to the catalyst bed outlet.
    - C) For a flare, a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame.
    - D) For a boiler or process heater having a design heat input capacity less than 44 MW, a temperature monitoring device equipped with a continuous recorder. The device must have an

accuracy of  $\pm 1\%$  of the temperature being monitored in  $^{\circ}\text{C}$  or  $\pm 0.5^{\circ}\text{C}$ , whichever is greater. The temperature sensor must be installed at a location in the furnace downstream of the combustion zone.

- E) For a boiler or process heater having a design heat input capacity greater than or equal to 44 MW, a monitoring device equipped with a continuous recorder to measure parameters that indicate good combustion operating practices are being used.
  - F) For a condenser, either:
    - i) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the condenser; or
    - ii) A temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature with an accuracy of  $\pm 1\%$  of the temperature being monitored in degrees Celsius ( $^{\circ}\text{C}$ ) or  $\pm 0.5^{\circ}\text{C}$ , whichever is greater. The temperature sensor must be installed at a location in the exhaust vent stream from the condenser exit (i.e., product side).
  - G) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly in the control device, either:
    - i) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the carbon bed; or
    - ii) A monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle.
- 3) Inspect the readings from each monitoring device required by subsections (f)(1) and (f)(2) of this Section at least once each operating day to check

control device operation and, if necessary, immediately implement the corrective measures necessary to ensure the control device operates in compliance with the requirements of this Section.

- g) An owner or operator using a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon at a regular, predetermined time interval that is no longer than the carbon service life established as a requirement of Section 725.935(b)(4)-(C)(vi).
- h) An owner or operator using a carbon adsorption system, such as a carbon canister, that does not regenerate the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon on a regular basis by using one of the following procedures:
  - 1) Monitor the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system on a regular schedule, and replace the existing carbon with fresh carbon immediately when carbon breakthrough is indicated. The monitoring frequency must be daily or at an interval no greater than 20% of the time required to consume the total carbon working capacity established as a requirement of Section 725.935(b)(4)(C)(vii), whichever is longer.
  - 2) Replace the existing carbon with fresh carbon at a regular, predetermined time interval that is less than the design carbon replacement interval established as a requirement of Section 725.935(b)(4)(C)(vii).
- i) An owner or operator of an affected facility seeking to comply with the provisions of this Part by using a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system is required to develop documentation including sufficient information to describe the control device operation and identify the process parameter or parameters that indicate proper operation and maintenance of the control device.
- j) A closed-vent-closed-vent system must meet either of the following design requirements:

- 1) A closed-vent system must be designed to operate with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, as determined by the methods specified at Section 725.934(b), and by visual inspections; or
  - 2) A closed-vent system must be designed to operate at a pressure below atmospheric pressure. The system must be equipped with at least one pressure gauge or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system when the control device is operating.
- k) The owner or operator shall monitor and inspect each closed-vent system required to comply with this Section to ensure proper operation and maintenance of the closed-vent system by implementing the following requirements:
- 1) Each closed-vent system that is used to comply with subsection (j)(1) of this Section shall be inspected and monitored in accordance with the following requirements:
    - A) An initial leak detection monitoring of the closed-vent system shall be conducted by the owner or operator on or before the date that the system becomes subject to this Section. The owner or operator shall monitor the closed-vent system components and connections using the procedures specified in Section 725.934(b) to demonstrate that the closed-vent system operates with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background.
    - B) After initial leak detection monitoring required in subsection (k)(1)(A) of this Section, the owner or operator shall inspect and monitor the closed-vent system as follows:
      - i) Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) must be visually

inspected at least once per year to check for defects that could result in air pollutant emissions. The owner or operator shall monitor a component or connection using the procedures specified in Section 725.934(b) to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted).

- ii) Closed-vent system components or connections other than those specified in subsection (k)(1)(B)(i) of this Section must be monitored annually and at other times as requested by the Regional Administrator, except as provided for in subsection (n) of this Section, using the procedures specified in Section 725.934(b) to demonstrate that the components or connections operate with no detectable emissions.
  - C) In the event that a defect or leak is detected, the owner or operator shall repair the defect or leak in accordance with the requirements of subsection (k)(3) of this Section.
  - D) The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in Section 725.935.
- 2) Each closed-vent system that is used to comply with subsection (j)(2) of this Section must be inspected and monitored in accordance with the following requirements:
- A) The closed-vent system must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork or piping or loose connections.
  - B) The owner or operator shall perform an initial inspection of the closed-vent system

on or before the date that the system becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year.

- C) In the event that a defect or leak is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k)(3) of this Section.
  - D) The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in Section 725.935.
- 3) The owner or operator shall repair all detected defects as follows:
- A) Detectable emissions, as indicated by visual inspection or by an instrument reading greater than 500 ppmv above background, must be controlled as soon as practicable, but not later than 15 calendar days after the emission is detected, except as provided for in subsection (k)(3)(C) of this Section.
  - B) A first attempt at repair must be made no later than five calendar days after the emission is detected.
  - C) Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment must be completed by the end of the next process unit shutdown.
  - D) The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in Section 725.935.
- l) A closed-vent system or control device used to comply with provisions of this Subpart must be operated at all times when emissions may be vented to it.
- m) The owner or operator using a carbon adsorption system to control air pollutant emissions shall document that

all carbon removed that is a hazardous waste and that is removed from the control device is managed in one of the following manners, regardless of the volatile organic concentration of the carbon:

- 1) It is regenerated or reactivated in a thermal treatment unit that meets one of the following:
  - A) The owner or operator of the unit has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of 35 Ill. Adm. Code 724.Subpart X; or
  - B) The unit is equipped with and operating air emission controls in accordance with the applicable requirements of 725.Subparts AA and CC or 35 Ill. Adm. Code 724; or
  - C) The unit is equipped with and operating air emission controls in accordance with a national emission standard for hazardous air pollutants under 40 CFR 61 or 40 CFR 63.
- 2) It is incinerated in a hazardous waste incinerator for which the owner or operator has done either of the following:
  - A) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of 35 Ill. Adm. Code 724.Subpart O, or
  - B) The owner or operator has designed and operates the incinerator in accordance with the interim status requirements of 725.Subpart O.
- 3) It is burned in a boiler or industrial furnace for which the owner or operator has done either of the following:
  - A) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of 35 Ill. Adm. Code 726.Subpart H, or
  - B) The owner or operator has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of 35 Ill. Adm. Code 726.Subpart H.

- n) Any components of a closed-vent system that are designated, as described in Section 725.935(c)(9), as unsafe to monitor are exempt from the requirements of subsection (k)(1)(B)(ii) of this Section if both of the following conditions are fulfilled:
- 1) The owner or operator of the closed-vent system has determined that the components of the closed-vent system are unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with subsection (k)(1)(B)(ii) of this Section; and
  - 2) The owner or operator of the closed-vent system adheres to a written plan that requires monitoring the closed-vent system components using the procedure specified in subsection (k)(1)(B)(ii) of this Section as frequently as practicable during safe-to-monitor times.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 725.934 Test Methods and Procedures

- a) Each owner or operator subject to the provisions of this Subpart shall comply with the test methods and procedures requirements provided in this Section.
- b) When a closed-vent system is tested for compliance with no detectable emissions, as required in Section 725.933(k), the test must comply with the following requirements:
  - 1) Monitoring must comply with Reference Method 21 in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111.
  - 2) The detection instrument must meet the performance criteria of Reference Method 21.
  - 3) The instrument must be calibrated before use on each day of its use by the procedures specified in Reference Method 21.
  - 4) Calibration gases must be:
    - A) Zero air (less than 10 ppm of hydrocarbon in air).

- B) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.
  - 5) The background level must be determined as set forth in Reference Method 21.
  - 6) The instrument probe must be traversed around all potential leak interfaces as close to the interface as possible, as described in Reference Method 21.
  - 7) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.
- c) Performance tests to determine compliance with Section 725.932(a) and with the total organic compound concentration limit of Section 725.933(c) must comply with the following:
- 1) Performance tests to determine total organic compound concentrations and mass flow rates entering and exiting control devices must be conducted and data reduced in accordance with the following reference methods and calculation procedures:
    - A) Method 2 in 40 CFR 60 for velocity and volumetric flow rate.
    - B) Method 18 in 40 CFR 60 for organic content.
    - C) Each performance test must consist of three separate runs, each run conducted for at least 1 hour under the conditions that exist when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. For the purpose of determining total organic compound concentrations and mass flow rates, the average of results of all runs applies. The average must be computed on a time-weighted basis.
    - D) Total organic mass flow rates must be determined by the following equation:

$$E_h = Q_{2sd} \times \left( \sum_{i=1}^n C_i \times MW_i \right) \times 0.0416 \times 10^{-6}$$

Where:

$E_h$  = The total organic mass flow rate, kg/h.

$Q_{2sd}$  = The volumetric flow rate of gases entering or exiting control device, dscm/h, as determined by Method 2 in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111.

$n$  = The number of organic compounds in the vent gas.

$C_i$  = The organic concentration in ppm, dry basis, of compound  $i$  in the vent gas, as determined by Method 18 in 40 CFR 60.

$MW_i$  = The molecular weight of organic compound  $i$  in the vent gas, kg/kg-mol.

0.0416 = The conversion factor for molar volume, kg-mol/m<sup>3</sup>, at 293 K and 760 mm Hg.

~~$10^6$~~   $10^{-6}$  = The conversion factor from ppm.

- E) The annual total organic emission rate must be determined by the following equation:

$$A = F \times H$$

Where:

$A$  is total organic emission rate, kg/y.

$F$  is the total organic mass flow rate, kg/h, as calculated in subsection (c)-(1)(D) of this Section.

$H$  is the total annual hours of operation for the affected unit.

- F) Total organic emissions from all affected process vents at the facility must be determined by summing the hourly total organic mass emissions rates (F as determined in subsection (c)(1)(D) of this Section) and by summing the annual total organic mass emission rates (A as determined in subsection (c)(1)(E) of this Section) for all affected process vents at the facility.
- 2) The owner or operator shall record such process information as is necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown and malfunction do not constitute representative conditions for the purpose of a performance test.
- 3) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:
  - A) Sampling ports adequate for the test methods specified in subsection (c)(1) of this Section.
  - B) Safe sampling platform(s).
  - C) Safe access to sampling platform(s).
  - D) Utilities for sampling and testing equipment.
- 4) For the purpose of making compliance determinations, the time-weighted average of the results of the three runs must apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions or other circumstances beyond the owner or operator's control, compliance may, upon the Agency's approval, be determined using the average of the results of the two other runs.
- d) To show that a process vent associated with a hazardous waste distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation is not subject to the requirements of this Subpart, the owner or operator shall make an initial determination that the time-weighted, annual average total organic concentration of the waste

managed by the waste management unit is less than 10 ppmw using one of the following two methods:

- 1) Direct measurement of the organic concentration of the waste using the following procedures:
  - A) The owner or operator shall take a minimum of four grab samples of waste for each wastestream managed in the affected unit under process conditions expected to cause the maximum waste organic concentration.
  - B) For waste generated onsite, the grab samples must be collected at a point before the waste is exposed to the atmosphere such as in an enclosed pipe or other closed system that is used to transfer the waste after generation to the first affected distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation. For waste generated offsite, the grab samples must be collected at the inlet to the first waste management unit that receives the waste provided the waste has been transferred to the facility in a closed system such as a tank truck and the waste is not diluted or mixed with other waste.
  - C) Each sample must be analyzed and the total organic concentration of the sample must be computed using Method 9060 or ~~8240-8260~~ of SW-846, incorporated by reference under 35 Ill. Adm. Code 720.111.
  - D) The arithmetic mean of the results of the analyses of the four samples apply for each wastestream managed in the unit in determining the time-weighted, annual average total organic concentration of the waste. The time-weighted average is to be calculated using the annual quantity of each waste stream processed and the mean organic concentration of each wastestream managed in the unit.
- 2) Using knowledge of the waste to determine that its total organic concentration is less than 10 ppmw. Documentation of the waste determination is required. Examples of documentation that must be used to support a determination under this subsection (d)(2) include:

- A) Production process information documenting that no organic compounds are used;
  - B) Information that the waste is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to generate a wastestream having a total organic content less than 10 ppmw; or
  - C) Prior speciation analysis results on the same wastestream where it is documented that no process changes have occurred since that analysis that could affect the waste total organic concentration.
- e) The determination that distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations which manage hazardous wastes with time-weighted, annual average total organic concentrations less than 10 ppmw must be made as follows:
- 1) By the effective date that the facility becomes subject to the provisions of this Subpart or by the date when the waste is first managed in a waste management unit, whichever is later; and
  - 2) For continuously generated waste, annually; or
  - 3) Whenever there is a change in the waste being managed or a change in the process that generates or treats the waste.
- f) When an owner or operator and the Agency do not agree on whether a distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation manages a hazardous waste with organic concentrations of at least 10 ppmw based on knowledge of the waste, the procedures in Method ~~8240~~ 8260 in SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, must be used to resolve the dispute.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective  
\_\_\_\_\_)

## SUBPART BB: AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

## Section 725.963 Test Methods and Procedures

- a) Each owner or operator subject to the provisions of this Subpart shall comply with the test methods and procedures requirements provided in this Section.
- b) Leak detection monitoring, as required in Sections 725.952 through 725.962, must comply with the following requirements:
  - 1) Monitoring must comply with Reference Method 21 in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111.
  - 2) The detection instrument must meet the performance criteria of Reference Method 21.
  - 3) The instrument must be calibrated before use on each day of its use by the procedures specified in Reference Method 21.
  - 4) Calibration gases must be:
    - A) Zero air (less than 10 ppm of hydrocarbon in air).
    - B) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.
  - 5) The instrument probe must be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.
- c) When equipment is tested for compliance with no detectable emissions, as required in Sections 725.952(e), 725.953(i), 725.954, and 725.957(f), the test must comply with the following requirements:
  - 1) The requirements of subsections (b)(1) through (b)(4) above apply.
  - 2) The background level must be determined as set forth in Reference Method 21.
  - 3) The instrument probe must be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

- 4) This arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.
- d) In accordance with the waste analysis plan required by Section 725.113(b), an owner or operator of a facility shall determine, for each piece of equipment, whether the equipment contains or contacts a hazardous waste with organic concentration that equals or exceeds 10 percent by weight using the following:
- 1) Methods described in ASTM Methods D 2267-88, E 168-88, E 169-87, or E 260-85, incorporated by reference in 35 Ill. Adm. Code 720.111;
  - 2) Method 9060 or ~~8240~~-8260 of SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111; or
  - 3) Application of the knowledge of the nature of the hazardous wastestream or the process by which it was produced. Documentation of a waste determination by knowledge is required. Examples of documentation that must be used to support a determination under this provision include production process information documenting that no organic compounds are used, information that the waste is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to have a total organic content less than 10 percent, or prior speciation analysis results on the same wastestream where it is also documented that no process changes have occurred since that analysis that could affect the waste total organic concentration.
- e) If an owner or operator determines that a piece of equipment contains or contacts a hazardous waste with organic concentrations at least 10 percent by weight, the determination can be revised only after following the procedures in subsection (d)(1) or (d)(2) above.
- f) When an owner or operator and the Agency do not agree on whether a piece of equipment contains or contacts a hazardous waste with organic concentrations at least 10 percent by weight, the procedures in subsection (d)(1) or (d)(2) above must be used to resolve the dispute.
- g) Samples used in determining the percent organic content must be representative of the highest total organic

content hazardous waste that is expected to be contained in or contact the equipment.

- h) To determine if pumps or valves are in light liquid service, the vapor pressures of constituents must either be obtained from standard reference texts or be determined by ASTM D 2879-8692, incorporated by reference in 35 Ill. Adm. Code 720.111.
- i) Performance tests to determine if a control device achieves 95 weight percent organic emission reduction must comply with the procedures of Section 725.934(c)-(1) through (c)(4).

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### Section 725.964 Recordkeeping Requirements

##### a) Lumping Units

- 1) Each owner or operator subject to the provisions of this Subpart shall comply with the recordkeeping requirements of this Section.
- 2) An owner or operator of more than one hazardous waste management unit subject to the provisions of this Subpart may comply with the recordkeeping requirements for these hazardous waste management units in one recordkeeping system if the system identifies each record by each hazardous waste management unit.

##### b) Owners and operators shall record the following information in the facility operating record:

- 1) For each piece of equipment to which this Subpart applies:
  - A) Equipment identification number and hazardous waste management unit identification.
  - B) Approximate locations within the facility (e.g., identify the hazardous waste management unit on a facility plot plan).
  - C) Type of equipment (e.g., a pump or pipeline valve).
  - D) Percent-by-weight total organics in the hazardous wastestream at the equipment.

- E) Hazardous waste state at the equipment (e.g. gas/vapor or liquid).
  - F) Method of compliance with the standard (e.g. "monthly leak detection and repair" or "equipped with dual mechanical seals").
- 2) For facilities ~~than that~~ comply with the provisions of Section 725.933(a)(2), an implementation schedule as specified in that Section.
  - 3) Where an owner or operator chooses to use test data to demonstrate the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan as specified in Section 725.935(b)(3).
  - 4) Documentation of compliance with Section 725.960, including the detailed design documentation or performance test results specified in Section 725.935(b)(4).
- c) When each leak is detected as specified in Sections 725.952, 725.953, 725.957 or 725.958, the following requirements apply:
- 1) A weatherproof and readily visible identification, marked with the equipment identification number, the date evidence of a potential leak was found in accordance with Section 725.958(a), and the date the leak was detected, must be attached to the leaking equipment.
  - 2) The identification on equipment except on a valve, may be removed after it has been repaired.
  - 3) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in Section 725.957(c) and no leak has been detected during those 2 months.
- d) When each leak is detected as specified in Sections 725.952, 725.953, 725.957 or 725.958, the following information must be recorded in an inspection log and must be kept in the facility operating record:
- 1) The instrument and operator identification numbers and the equipment identification number.
  - 2) The date evidence of a potential leak was found in accordance with Section 725.958(a).

- 3) The date the leak was detected and the dates of each attempt to repair the leak.
  - 4) Repair methods applied in each attempt to repair the leak.
  - 5) "Above 10,000", if the maximum instrument reading measured by the methods specified in Section 725.963(b) after each repair attempt is equal to or greater than 10,000 ppm.
  - 6) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
  - 7) Documentation supporting the delay of repair of a valve in compliance with Section 725.959(c).
  - 8) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a hazardous waste management unit shutdown.
  - 9) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days.
  - 10) The date of successful repair of the leak.
- e) Design documentation and monitoring, operating and inspection information for each closed-vent system and control device required to comply with the provisions of Section 725.960 must be recorded and kept up-to-date in the facility operating record as specified in Section 725.935(c)(1) and (c)(2), and monitoring, operating and inspection information in Section 725.935(c)(3) through (c)(8).
  - f) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, monitoring and inspection information indicating proper operation and maintenance of the control device must be recorded in the facility operating record.
  - g) The following information pertaining to all equipment subject to the requirements in Sections 725.952 through 725.960 must be recorded in a log that is kept in the facility operating record:

- 1) A list of identification numbers for equipment (except welded fittings) subject to the requirements of this Subpart.
  - 2) List of Equipment
    - A) A list of identification numbers for equipment that the owner or operator elects to designate for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, under the provisions of Sections 725.952(e), 725.953(i) and 725.957(f).
    - B) The designation of this equipment as subject to the requirements of Section 725.952(e), 725.953(i) or 725.957(f) must be signed by the owner or operator.
  - 3) A list of equipment identification numbers for pressure relief devices required to comply with Section 725.954(a).
  - 4) Compliance tests.
    - A) The dates of each compliance test required in Sections 725.952(e), 725.953(i), 725.954, and 725.957(f).
    - B) The background level measured during each compliance test.
    - C) The maximum instrument reading measured at the equipment during each compliance test.
  - 5) A list of identification numbers for equipment in vacuum service.
  - 6) Identification, either by list or location (area or group) of equipment that contains or contacts hazardous waste with an organic concentration of at least 10% by weight for a period of less than 300 hours per year.
- h) The following information pertaining to all valves subject to the requirements of Section 725.957(g) and (h) must be recorded in a log that is kept in the facility operating record:
- 1) A list of identification numbers for valves that are designated as unsafe to monitor, an explanation for each valve stating why the valve

is unsafe to monitor, and the plan for monitoring each valve.

- 2) A list of identification numbers for valves that are designated as difficult to monitor, an explanation for each valve stating why the valve is difficult to monitor, and the planned schedule for monitoring each valve.
- i) The following information must be recorded in the facility operating record for valves complying with Section 725.962:
- 1) A schedule of monitoring.
  - 2) The percent of valves found leaking during each monitoring period.
- j) The following information must be recorded in a log that is kept in the facility operating record:
- 1) Criteria required in ~~Section~~ Sections 725.952(d)-(5)(B) and 725.953(e)(2) and an explanation of the criteria.
  - 2) Any changes to these criteria and the reasons for the changes.
- k) The following information must be recorded in a log that is kept in the facility operating record for use in determining exemptions as provided in Section 725.950 and other specific Subparts:
- 1) An analysis determining the design capacity of the hazardous waste management unit.
  - 2) A statement listing the hazardous waste influent to and effluent from each hazardous waste management unit subject to the requirements in ~~Sections~~ Section 725.960 and an analysis determining whether these hazardous wastes are heavy liquids.
  - 3) An up-to-date analysis and the supporting information and data used to determine whether or not equipment is subject to the requirements in Sections 725.952 through 725.960. The record must include supporting documentation as required by Section 725.963(d)(3) when application of the knowledge of the nature of the hazardous wastestream or the process by which it was produced is used. If the owner or operator takes

any action (e.g., changing the process that produced the waste) that could result in an increase in the total organic content of the waste contained in or contacted by equipment determined not to be subject to the requirements in Sections 725.952 through 725.960, then a new determination is required.

- l) Records of the equipment leak information required by subsection (d) of this Section and the operating information required by subsection (e) of this Section need be kept only three years.
- m) The owner or operator of any facility that is subject to this Subpart and to regulations at 40 CFR 60, Subpart VV, or 40 CFR 61, Subpart V, incorporated by reference in 35 Ill. Adm. Code 720.111, may elect to determine compliance with this Subpart by documentation either pursuant to Section 725.964, or pursuant to those provisions of 40 CFR 60 or 61, to the extent that the documentation under the regulation at 40 CFR 60 or 61 duplicates the documentation required under this Subpart. The documentation under the regulation at 40 CFR 60 or 61 must be kept with or made readily available with the facility operating record.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

SUBPART CC: AIR EMISSION STANDARDS FOR TANKS, SURFACE IMPOUNDMENTS, AND CONTAINERS

Section 725.981 Definitions

As used in this Subpart and in 35 Ill. Adm. Code 724, all terms not defined herein shall have the meaning given to them in the Act and 35 Ill. Adm. Code 720 through 726.

"Average volatile organic concentration" or "average VO concentration" means the mass-weighted average volatile organic concentration of a hazardous waste, as determined in accordance with the requirements of Section 725.984.

"Closure device" means a cap, hatch, lid, plug, seal, valve, or other type of fitting that blocks an opening in a cover so that when the device is secured in the closed position it prevents or reduces air pollutant emissions to the atmosphere. Closure devices include devices that are detachable from the cover (e.g., a sampling port cap), manually operated (e.g., a hinged

access lid or hatch), or automatically operated (e.g., a spring-loaded pressure relief valve).

"Continuous seal" means a seal that forms a continuous closure that completely covers the space between the edge of the floating roof and the wall of a tank. A continuous seal may be a vapor-mounted seal, liquid-mounted seal, or metallic shoe seal. A continuous seal may be constructed of fastened segments so as to form a continuous seal.

"Cover" means a device that provides a continuous barrier over the hazardous waste managed in a unit to prevent or reduce air emissions to the atmosphere. A cover may have openings (such as access hatches, sampling ports, and gauge wells) that are necessary for operation, inspection, maintenance, or repair of the unit on which the cover is used. A cover may be a separate piece of equipment which can be detached and removed from the unit or a cover may be formed by structural features permanently integrated into the design of the unit.

"Enclosure" means a structure that surrounds a tank or container, captures organic vapors emitted from the tank or container, and vents the captured vapors through a closed-vent system to a control device.

"External floating roof" means a pontoon-type or double-deck type cover that rests on the surface of a hazardous waste being managed in a tank with no fixed roof.

"Fixed roof" means a cover that is mounted on a unit in a stationary position and does not move with fluctuations in the level of the material managed in the unit.

"Floating membrane cover" means a cover consisting of a synthetic flexible membrane material that rests upon and is supported by the hazardous waste being managed in a surface impoundment.

"Floating roof" means a cover consisting of a double-deck, pontoon single-deck, or internal floating cover that rests upon and is supported by the material being contained, and is equipped with a continuous seal.

"Hard-piping" means pipe or tubing that is manufactured and properly installed in accordance with relevant standards and good engineering practices.

"In light material service" means the container is used to manage a material for which both of the following conditions apply: the vapor pressure of one or more of the organic constituents in the material is greater than 0.3 kilopascals (kPa) at 20°C (1.2 inches H<sub>2</sub>O at 68°F); and the total concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa at 20°C (1.2 inches H<sub>2</sub>O at 68°F) is equal to or greater than 20% by weight.

"Internal floating roof" means a cover that rests or floats on the material surface (but not necessarily in complete contact with it) inside a tank that has a fixed roof.

"Liquid-mounted seal" means a foam or liquid-filled primary seal mounted in contact with the hazardous waste between the tank wall and the floating roof, continuously around the circumference of the tank.

"Malfunction" means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. A failure that is caused in part by poor maintenance or careless operation is not a malfunction.

"Maximum organic vapor pressure" means the sum of the individual organic constituent partial pressures exerted by the material contained in a tank at the maximum vapor pressure-causing conditions (i.e., temperature, agitation, pH effects of combining wastes, etc.) reasonably expected to occur in the tank. For the purpose of this Subpart, maximum organic vapor pressure is determined using the procedures specified in Section 725.984(c).

"Metallic shoe seal" means a continuous seal that is constructed of metal sheets that are held vertically against the wall of the tank by springs, weighted levers, or other mechanisms and which is connected to the floating roof by braces or other means. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

"No detectable organic emissions" means no escape of organics to the atmosphere, as determined using the procedure specified in Section 725.984(d).

"Point of waste origination" means as follows:

When the facility owner or operator is the generator of the hazardous waste, the "point of waste origination" means the point where a solid waste produced by a system, process, or waste management unit is determined to be a hazardous waste, as defined in 35 Ill. Adm. Code 721.

BOARD NOTE: In this case, this term is being used in a manner similar to the use of the term "point of generation" in air standards established for waste management operations under authority of the federal Clean Air Act in 40 CFR 60, 61, and 63.

When the facility owner and operator are not the generator of the hazardous waste, "point of waste origination" means the point where the owner or operator accepts delivery or takes possession of the hazardous waste.

"Point of waste treatment" means the point where a hazardous waste to be treated in accordance with Section 725.983(c)(2) exits the treatment process. Any waste determination must be made before the waste is conveyed, handled, or otherwise managed in a manner that allows the waste to volatilize to the atmosphere.

"Safety device" means a closure device, such as a pressure relief valve, frangible disc, fusible plug, or any other type of device, which functions exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an unplanned, accidental, or emergency event. For the purpose of this Subpart, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in this vapor headspace in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the air emission control equipment as determined by the owner or operator based on manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials.

"Single-seal system" means a floating roof having one continuous seal. This seal may be vapor-mounted, liquid-mounted, or a metallic shoe seal.

"Vapor-mounted seal" means a continuous seal that is mounted so that there is a vapor space between the hazardous waste in the unit and the bottom of the seal.

"Volatile organic concentration" or "VO concentration" means the fraction by weight of organic compounds contained in a hazardous waste expressed in terms of parts per million (ppmw), as determined by direct measurement or by knowledge of the waste, in accordance with the requirements of Section 725.984. For the purpose of determining the VO concentration of a hazardous waste, organic compounds with a Henry's law constant value of at least 0.1 ~~mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase~~ ~~mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase~~ (0.1 Y/X) (which can also be expressed as  $1.8 \times 10^{-6}$  atmospheres/gram-mole/m<sup>3</sup>) at 25° C (77° F) must be included. Section 725.Appendix F presents a list of compounds known to have a Henry's law constant value less than the cutoff level.

"Waste determination" means performing all applicable procedures in accordance with the requirements of Section 725.984 to determine whether a hazardous waste meets standards specified in this Subpart. Examples of a waste determination include performing the procedures in accordance with the requirements of Section 725.984 to determine the average VO concentration of a hazardous waste at the point of waste origination, determining the average VO concentration of a hazardous waste at the point of waste treatment and comparing the results to the exit concentration limit specified for the process used to treat the hazardous waste, the organic reduction efficiency and the organic biodegradation efficiency for a biological process used to treat a hazardous waste and comparing the results to the applicable standards, or determining the maximum volatile organic vapor pressure for a hazardous waste in a tank and comparing the results to the applicable standards.

"Waste stabilization process" means any physical or chemical process used to either reduce the mobility of hazardous constituents in a hazardous waste or eliminate free liquids as determined by Test Method 9095 (Paint Filter Liquids Test) in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods",

incorporated by reference in Section 720.111. A waste stabilization process includes mixing the hazardous waste with binders or other materials and curing the resulting hazardous waste and binder mixture. Other synonymous terms used to refer to this process are "waste fixation" or "waste solidification". This does not include the addition of absorbent materials to the surface of a waste to absorb free liquid without mixing, agitation, or subsequent curing.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 725.985 Standards: Tanks

- a) The provisions of this Section apply to the control of air pollutant emissions from tanks for which Section 725.983(b) references the use of this Section for such air emission control.
- b) The owner or operator shall control air pollutant emissions from each tank subject to this Section in accordance with the following requirements, as applicable:
  - 1) For a tank that manages hazardous waste which meets all of the conditions specified in subsections (b)(1)(A) through (b)(1)(C) of this Section, the owner or operator shall control air pollutant emissions from the tank in accordance with the Tank Level 1 controls specified in subsection (c) of this Section or the Tank Level 2 controls specified in subsection (d) of this Section.
    - A) The hazardous waste in the tank has a maximum organic vapor pressure that is less than the maximum organic vapor pressure limit for the tank's design capacity category, as follows:
      - i) For a tank design capacity equal to or greater than 151 m<sup>3</sup> (5333 ft<sup>3</sup> or 39,887 gal), the maximum organic vapor pressure limit for the tank is 5.2 kPa (0.75 psia or 39 mm Hg);
      - ii) For a tank design capacity equal to or greater than 75 m<sup>3</sup> (2649 ft<sup>3</sup> or 19,810 gal) but less than 151 m<sup>3</sup> (5333 ft<sup>3</sup> or 39,887 gal), the maximum organic vapor pressure limit for the tank is 27.6 kPa (4.0 psia or 207 mm Hg); or

- iii) For a tank design capacity ~~is~~ less than 75 m<sup>3</sup> (2649 ft<sup>3</sup> or 19,810 gal), the maximum organic vapor pressure limit for the tank is 76.6 kPa (11.1 psia or 574 mm Hg).
  - B) The hazardous waste in the tank is not heated by the owner or operator to a temperature that is greater than the temperature at which the maximum organic vapor pressure of the hazardous waste is determined for the purpose of complying with subsection (b)(1)(A) of this Section.
  - C) The hazardous waste in the tank is not treated by the owner or operator using a waste stabilization process, as defined in Section 725.981.
- 2) For a tank that manages hazardous waste that does not meet all of the conditions specified in subsections (b)(1)(A) through (b)(1)(C) of this Section, the owner or operator shall control air pollutant emissions from the tank by using Tank Level 2 controls in accordance with the requirements of subsection (d) of this Section. Examples of tanks required to use Tank Level 2 controls include the following: a tank used for a waste stabilization process and a tank for which the hazardous waste in the tank has a maximum organic vapor pressure that is equal to or greater than the maximum organic vapor pressure limit for the tank's design capacity category, as specified in subsection (b)(1)(A) of this Section.
- c) Owners and operators controlling air pollutant emissions from a tank using Tank Level 1 controls shall meet the requirements specified in subsections (c)(1) through (c)(4) of this Section:
- 1) The owner or operator shall determine the maximum organic vapor pressure for a hazardous waste to be managed in the tank using Tank Level 1 controls before the first time the hazardous waste is placed in the tank. The maximum organic vapor pressure must be determined using the procedures specified in Section 725.984(c). Thereafter, the owner or operator shall perform a new determination whenever changes to the hazardous waste managed in the tank could potentially cause the maximum organic vapor pressure to increase to

a level that is equal to or greater than the maximum organic vapor pressure limit for the tank design capacity category specified in subsection (b)(1)(A) of this Section, as applicable to the tank.

- 2) The tank must be equipped with a fixed roof designed to meet the following specifications:
  - A) The fixed roof and its closure devices must be designed to form a continuous barrier over the entire surface area of the hazardous waste in the tank. The fixed roof may be a separate cover installed on the tank (e.g., a removable cover mounted on an open-top tank) or may be an integral part of the tank structural design (e.g., a horizontal cylindrical tank equipped with a hatch).
  - B) The fixed roof must be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between roof ~~Section-section~~ joints or between the interface of the roof edge and the tank wall.
  - C) Each opening in the fixed roof must be either:
    - i) Equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device; or
    - ii) Connected by a closed-vent system that is vented to a control device. The control device must remove or destroy organics in the vent stream, and it must be operating whenever hazardous waste is managed in the tank.
  - D) The fixed roof and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and which will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for

and designing the fixed roof and closure devices must include the following: organic vapor permeability; the effects of any contact with the hazardous waste or its vapors managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.

- 3) Whenever a hazardous waste is in the tank, the fixed roof must be installed with each closure device secured in the closed position, except as follows:
  - A) Opening of closure devices or removal of the fixed roof is allowed at the following times:
    - i) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.
    - ii) To remove accumulated sludge or other residues from the bottom of tank.
  - B) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the tank internal pressure in accordance with the tank design specifications. The device must be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens must be established such that the device remains in the closed position whenever the tank internal pressure is within the internal pressure operating range determined by the owner or operator based on the tank manufacturer recommendations; applicable regulations; fire

protection and prevention codes; standard engineering codes and practices; or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the tank internal pressure exceeds the internal pressure operating range for the tank as a result of loading operations or diurnal ambient temperature fluctuations.

- C) Opening of a safety device, as defined in Section 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.
- 4) The owner or operator shall inspect the air emission control equipment in accordance with the following requirements.
- A) The fixed roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof **Sections sections** or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.
  - B) The owner or operator shall perform an initial inspection of the fixed roof and its closure devices on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year, except under the special conditions provided for in subsection (l) of this Section.
  - C) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k) of this Section.
  - D) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).

- d) Owners and operators controlling air pollutant emissions from a tank using Tank Level 2 controls shall use one of the following tanks:
- 1) A fixed-roof tank equipped with an internal floating roof in accordance with the requirements specified in subsection (e) of this Section;
  - 2) A tank equipped with an external floating roof in accordance with the requirements specified in subsection (f) of this Section;
  - 3) A tank vented through a closed-vent system to a control device in accordance with the requirements specified in subsection (g) of this Section;
  - 4) A pressure tank designed and operated in accordance with the requirements specified in subsection (h) of this Section; or
  - 5) A tank located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device in accordance with the requirements specified in subsection (i) of this Section.
- e) The owner or operator that controls air pollutant emissions from a tank using a ~~fixed-roof~~ **fixed roof** with an internal floating roof shall meet the requirements specified in subsections (e)(1) through (e)(3) of this Section.
- 1) The tank must be equipped with a fixed roof and an internal floating roof in accordance with the following requirements:
    - A) The internal floating roof must be designed to float on the liquid surface except when the floating roof must be supported by the leg supports.
    - B) The internal floating roof must be equipped with a continuous seal between the wall of the tank and the floating roof edge that meets either of the following requirements:
      - i) A single continuous seal that is either a liquid-mounted seal or a metallic shoe seal, as defined in Section 725.981; or

- ii) Two continuous seals mounted one ~~of this Section above~~ the other. The lower seal may be a vapor-mounted seal.
- C) The internal floating roof must meet the following specifications:
- i) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.
  - ii) Each opening in the internal floating roof must be equipped with a gasketed cover or a gasketed lid except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains.
  - iii) Each penetration of the internal floating roof for the purpose of sampling must have a slit fabric cover that covers at least 90% of the opening.
  - iv) Each automatic bleeder vent and rim space vent must be gasketed.
  - v) Each penetration of the internal floating roof that allows for passage of a ladder must have a gasketed sliding cover.
  - vi) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof must have a flexible fabric sleeve seal or a gasketed sliding cover.
- 2) The owner or operator shall operate the tank in accordance with the following requirements:
- A) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling must be continuous and must be completed as soon as practical.
  - B) Automatic bleeder vents are to be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.

- C) Prior to filling the tank, each cover, access hatch, gauge float well or lid on any opening in the internal floating roof must be bolted or fastened closed (i.e., no visible gaps). Rim space vents are to be set to open only when the internal floating roof is not floating or when the pressure beneath the rim exceeds the manufacturer's recommended setting.
- 3) The owner or operator shall inspect the internal floating roof in accordance with the procedures specified as follows:
- A) The floating roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, the following: when the internal floating roof is not floating on the surface of the liquid inside the tank; when liquid has accumulated on top of the internal floating roof; when any portion of the roof seals have detached from the roof rim; when holes, tears, or other openings are visible in the seal fabric; when the gaskets no longer close off the hazardous waste surface from the atmosphere; or when the slotted membrane has more than 10% open area.
  - B) The owner or operator shall inspect the internal floating roof components as follows, except as provided in subsection (e)(3)(C) of this Section:
    - i) Visually inspect the internal floating roof components through openings on the fixed-roof (e.g., manholes and roof hatches) at least once every 12 months after initial fill, and
    - ii) Visually inspect the internal floating roof, primary seal, secondary seal (if one is in service), gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least once every 10 years.
  - C) As an alternative to performing the inspections specified in subsection (e)(3)(B)

of this Section for an internal floating roof equipped with two continuous seals mounted one above the other, the owner or operator may visually inspect the internal floating roof, primary and secondary seals, gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least every five years.

- D) Prior to each inspection required by subsection (e)(3)(B) or (e)(3)(C) of this Section, the owner or operator shall notify the Agency in advance of each inspection to provide the Agency with the opportunity to have an observer present during the inspection. The owner or operator shall notify the Agency of the date and location of the inspection as follows:
- i) Prior to each visual inspection of an internal floating roof in a tank that has been emptied and degassed, written notification must be prepared and sent by the owner or operator so that it is received by the Agency at least 30 calendar days before refilling the tank, except when an inspection is not planned, as provided for in subsection (e)(3)(D)(ii) of this Section.
  - ii) When a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the Agency as soon as possible, but no later than seven calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Regional Administrator at least seven calendar days before refilling the tank.
- E) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k) of this Section.

- F) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).
- f) The owner or operator that controls air pollutant emissions from a tank using an external floating roof shall meet the requirements specified in subsections (f)(1) through (f)(3) of this Section.
- 1) The owner or operator shall design the external floating roof in accordance with the following requirements:
    - A) The external floating roof must be designed to float on the liquid surface except when the floating roof must be supported by the leg supports.
    - B) The floating roof must be equipped with two continuous seals, one above the other, between the wall of the tank and the roof edge. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.
      - i) The primary seal must be a liquid-mounted seal or a metallic shoe seal, as defined in Section 725.981. The total area of the gaps between the tank wall and the primary seal must not exceed 212 square centimeters ( $\text{cm}^2$ ) per meter (10.0  $\text{in}^2$  per foot) of tank diameter, and the width of any portion of these gaps must not exceed 3.8 centimeters (cm) (1.5 inches). If a metallic shoe seal is used for the primary seal, the metallic shoe seal must be designed so that one end extends into the liquid in the tank and the other end extends a vertical distance of at least 61 centimeters above the liquid surface.
      - ii) The secondary seal must be mounted above the primary seal and cover the annular space between the floating roof and the wall of the tank. The total area of the gaps between the tank wall and the secondary seal must not exceed 21.2  $\text{cm}^2$  per meter (1.0  $\text{in}^2$  per foot) of tank diameter, and the width of any portion

of these gaps must not exceed 1.3 cm (0.5 inch).

- C) The external floating roof must meet the following specifications:
- i) Except for automatic bleeder vents (vacuum breaker vents) and rim space vents, each opening in a noncontact external floating roof must provide a projection below the liquid surface.
  - ii) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof must be equipped with a gasketed cover, seal, or lid.
  - iii) Each access hatch and each gauge float well must be equipped with a cover designed to be bolted or fastened when the cover is secured in the closed position.
  - iv) Each automatic bleeder vent and each rim space vent must be equipped with a gasket.
  - v) Each roof drain that empties into the liquid managed in the tank must be equipped with a slotted membrane fabric cover that covers at least 90% of the area of the opening.
  - vi) Each unslotted and slotted guide pole well must be equipped with a gasketed sliding cover or a flexible fabric sleeve seal.
  - vii) Each unslotted guide pole must be equipped with a gasketed cap on the end of the pole.
  - viii) Each slotted guide pole must be equipped with a gasketed float or other device which closes off the liquid surface from the atmosphere.
  - ix) Each gauge hatch and each sample well must be equipped with a gasketed cover.

- 2) The owner or operator shall operate the tank in accordance with the following requirements:
  - A) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling must be continuous and must be completed as soon as practical.
  - B) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof must be secured and maintained in a closed position at all times except when the closure device must be open for access.
  - C) Covers on each access hatch and each gauge float well must be bolted or fastened when secured in the closed position.
  - D) Automatic bleeder vents must be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.
  - E) Rim space vents must be set to open only at those times that the roof is being floated off the roof leg supports or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.
  - F) The cap on the end of each unslotted guide pole must be secured in the closed position at all times except when measuring the level or collecting samples of the liquid in the tank.
  - G) The cover on each gauge hatch or sample well must be secured in the closed position at all times except when the hatch or well must be opened for access.
  - H) Both the primary seal and the secondary seal must completely cover the annular space between the external floating roof and the wall of the tank in a continuous fashion except during inspections.
- 3) The owner or operator shall inspect the external floating roof in accordance with the procedures specified as follows:

- A) The owner or operator shall measure the external floating roof seal gaps in accordance with the following requirements:
- i) The owner or operator shall perform measurements of gaps between the tank wall and the primary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every five years.
  - ii) The owner or operator shall perform measurements of gaps between the tank wall and the secondary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every year.
  - iii) If a tank ceases to hold hazardous waste for a period of one year or more, subsequent introduction of hazardous waste into the tank must be considered an initial operation for the purposes of subsections (f)(3)(A)(i) and (f)(3)(A)-(ii) of this Section.
  - iv) The owner or operator shall determine the total surface area of gaps in the primary seal and in the secondary seal individually using the procedure set forth in subsection (f)(4)(D) of this Section.
  - v) In the event that the seal gap measurements do not conform to the specifications in subsection (f)(1)(B) of this Section, the owner or operator must repair the defect in accordance with the requirements of subsection (k) of this Section.
  - vi) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).
- B) The owner or operator shall visually inspect the external floating roof in accordance with the following requirements:

- i) The floating roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to any of the following: holes, tears, or other openings in the rim seal or seal fabric of the floating roof; a rim seal detached from the floating roof; all or a portion of the floating roof deck being submerged ~~of this Section below~~ the surface of the liquid in the tank; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.
  - ii) The owner or operator shall perform an initial inspection of the external floating roof and its closure devices on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in subsection (l) of this Section.
  - iii) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k) of this Section.
  - iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).
- C) Prior to each inspection required by subsection (f)(3)(A) or (f)(3)(B) of this Section, the owner or operator shall notify the Agency in advance of each inspection to provide the Agency with the opportunity to have an observer present during the inspection. The owner or operator shall notify the Agency of the date and location of the inspection as follows:
- i) Prior to each inspection to measure external floating roof seal gaps as

required under subsection (f)(3)(A) of this Section, written notification must be prepared and sent by the owner or operator so that it is received by the Agency at least 30 calendar days before the date the measurements are scheduled to be performed.

- ii) Prior to each visual inspection of an external floating roof in a tank that has been emptied and degassed, written notification must be prepared and sent by the owner or operator so that it is received by the Agency at least 30 calendar days before refilling the tank except when an inspection is not planned, as provided for in subsection (f)(3)(C)(iii) of this Section.
  - iii) When a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the Agency as soon as possible, but no later than seven calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Regional Administrator at least seven calendar days before refilling the tank.
- D) Procedure for determining gaps in the primary seal and in the secondary seal for the purposes of subsection (f)(3)(A)(iv) of this Section:
- i) The seal gap measurements must be performed at one or more floating roof levels when the roof is floating off the roof supports.
  - ii) Seal gaps, if any, must be measured around the entire perimeter of the floating roof in each place where a 0.32-cm (1/8-inch) diameter uniform probe passes freely (without forcing or

binding against the seal) between the seal and the wall of the tank and measure the circumferential distance of each such location.

- iii) For a seal gap measured under this subsection (f)(3), the gap surface area must be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.
- iv) The total gap area must be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal perimeter of the tank. These total gap areas for the primary seal and secondary seal are then **are** compared to the respective standards for the seal type, as specified in subsection (f)(1)(B) of this Section.

BOARD NOTE: Subsections (f)(3)(D)(i) through (f)(3)(D)(iv) correspond with 40 CFR 265.1085(f)(3)(i)(D)(1) through (f)(3)(i)(D)(4), which the Board has codified here to comport with Illinois Administrative Code format requirements.

- g) The owner or operator that controls air pollutant emissions from a tank by venting the tank to a control device shall meet the requirements specified in subsections (g)(1) through (g)(3) of this Section.
  - 1) The tank must be covered by a fixed roof and vented directly through a closed-vent system to a control device in accordance with the following requirements:
    - A) The fixed roof and its closure devices must be designed to form a continuous barrier over the entire surface area of the liquid in the tank.
    - B) Each opening in the fixed roof not vented to the control device must be equipped with a closure device. If the pressure in the vapor

headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices must be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device must be designed to operate with no detectable organic emissions.

- C) The fixed roof and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices must include the following: organic vapor permeability; the effects of any contact with the liquid and its vapor managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.
  - D) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 725.988.
- 2) Whenever a hazardous waste is in the tank, the fixed roof must be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except as follows:
- A) Venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times:
    - i) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such

activities include those times when a worker needs to open a port to sample liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

- ii) To remove accumulated sludge or other residues from the bottom of a tank.
- B) Opening of a safety device, as defined in Section 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.
- 3) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the following procedures:
- A) The fixed roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to any of the following: visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.
  - B) The closed-vent system and control device must be inspected and monitored by the owner or operator in accordance with the procedures specified in Section 725.988.
  - C) The owner or operator shall perform an initial inspection of the air emission control equipment on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in subsection (1) of this Section.
  - D) In the event that a defect is detected, the owner or operator shall repair the defect in

accordance with the requirements of subsection (k) of this Section.

- E) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).
- h) The owner or operator that controls air pollutant emissions by using a pressure tank must meet the following requirements.
  - 1) The tank shall be designed not to vent to the atmosphere as a result of compression of the vapor headspace in the tank during filling of the tank to its design capacity.
  - 2) All tank openings must be equipped with closure devices designed to operate with no detectable organic emissions as determined using the procedure specified in Section 725.984(d).
  - 3) Whenever a hazardous waste is in the tank, the tank must be operated as a closed system that does not vent to the atmosphere except in the event that a safety device, as defined in Section 725.981, is required to open to avoid an unsafe condition.
- i) The owner or operator that controls air pollutant emissions by using an enclosure vented through a closed-vent system to an enclosed combustion control device shall meet the requirements specified in subsections (i)(1) through (i)(4) of this Section.
  - 1) The tank must be located inside an enclosure. The enclosure must be designed and operated in accordance with the criteria for a permanent total enclosure, as specified in "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to "Procedure T--Criteria for and Verification of a Permanent or Temporary

Total Enclosure" initially when the enclosure is first installed and, thereafter, annually.

- 2) The enclosure must be vented through a closed-vent system to an enclosed combustion control device that is designed and operated in accordance with the standards for either a vapor incinerator, boiler, or process heater specified in Section 725.988.
  - 3) Safety devices, as defined in Section 725.981, may be installed and operated as necessary on any enclosure, closed-vent system, or control device used to comply with the requirements of subsections (i)(1) and (i)(2) of this Section.
  - 4) The owner or operator shall inspect and monitor the closed-vent system and control device, as specified in Section 725.988.
- j) The owner or operator shall transfer hazardous waste to a tank subject to this Section in accordance with the following requirements:
- 1) Transfer of hazardous waste, except as provided in subsection (j)(2) of this Section, to the tank from another tank subject to this Section or from a surface impoundment subject to Section 725.986 must be conducted using continuous hard-piping or another closed system that does not allow exposure of the hazardous waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the requirements of 40 CFR 63, subpart RR, "National Emission Standards for Individual Drain Systems", incorporated by reference in 35 Ill. Adm. Code 720.111.
  - 2) The requirements of subsection (j)(1) of this Section do not apply when transferring a hazardous waste to the tank under any of the following conditions:
    - A) The hazardous waste meets the average VO concentration conditions specified in Section 725.983(c)(1) at the point of waste origination.
    - B) The hazardous waste has been treated by an organic destruction or removal process to meet the requirements in Section 725.983(c)-(2).

- k) The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of subsections (c)(4), (e)(3), (f)(3), or (g)(3) of this Section as follows:
- 1) The owner or operator shall make first efforts at repair of the defect no later than five calendar days after detection, and repair shall be completed as soon as possible but no later than 45 calendar days after detection except as provided in subsection (k)(2) of this Section.
  - 2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the hazardous waste normally managed in the tank. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Repair of the defect must be completed before the process or unit resumes operation.
- l) Following the initial inspection and monitoring of the cover as required by the applicable provisions of this Subpart, subsequent inspection and monitoring may be performed at intervals longer than one year under the following special conditions:
- 1) Where inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions, then the owner or operator may designate a cover as an "unsafe to inspect and monitor cover" and comply with all of the following requirements:
    - A) Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required.
    - B) Develop and implement a written plan and schedule to inspect and monitor the cover, using the procedures specified in the applicable Section of this Subpart, as frequently as practicable during those times when a worker can safely access the cover.

- 2) In the case when a tank is buried partially or entirely underground, an owner or operator is required to inspect and monitor, as required by the applicable provisions of this Section, only those portions of the tank cover and those connections to the tank (e.g., fill ports, access hatches, gauge wells, etc.) that are located on or above the ground surface.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 725.986 Standards: Surface Impoundments

- a) The provisions of this Section apply to the control of air pollutant emissions from surface impoundments for which Section 725.983(b) of this Subpart references the use of this Section for such air emission control.
- b) The owner or operator shall control air pollutant emissions from the surface impoundment by installing and operating either of the following:
  - 1) A floating membrane cover in accordance with the provisions specified in subsection (c) of this Section; or
  - 2) A cover that is vented through a closed-vent system to a control device in accordance with the provisions specified in subsection (d) of this Section.
- c) The owner or operator that controls air pollutant emissions from a surface impoundment using a floating membrane cover must meet the requirements specified in subsections (c)(1) through (c)(3) of this Section.
  - 1) The surface impoundment must be equipped with a floating membrane cover designed to meet the following specifications:
    - A) The floating membrane cover must be designed to float on the liquid surface during normal operations and form a continuous barrier over the entire surface area of the liquid.
    - B) The cover must be fabricated from a synthetic membrane material that is either:
      - i) High density polyethylene (HDPE) with a thickness no less than 2.5 millimeters (mm) (0.10 inch); or

- ii) A material or a composite of different materials determined to have both organic permeability properties that are equivalent to those of the material listed in subsection (c)(1)(B)(i) of this Section and chemical and physical properties that maintain the material integrity for the intended service life of the material.
- C) The cover must be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between cover section seams or between the interface of the cover edge and its foundation mountings.
- D) Except as provided for in subsection (c)(1)-(E) of this Section, each opening in the floating membrane cover must be equipped with a closure device so designed as to operate that when ~~that~~ the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device.
- E) The floating membrane cover may be equipped with one or more emergency cover drains for removal of stormwater. Each emergency cover drain must be equipped with a slotted membrane fabric cover that covers at least 90% of the area of the opening or a flexible fabric sleeve seal.
- F) The closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the closure devices throughout their intended service life. Factors to be considered when selecting the materials of construction and designing the cover and closure devices must include the following: the organic vapor permeability; the effects of any contact with the liquid and its vapor managed in the surface impoundment; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the surface impoundment on which the floating membrane cover is installed.

- 2) Whenever a hazardous waste is in the surface impoundment, the floating membrane cover must float on the liquid and each closure device must be secured in the closed position except as follows:
  - A) Opening of closure devices or removal of the cover is allowed at the following times:
    - i) To provide access to the surface impoundment for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the surface impoundment, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly replace the cover and secure the closure device in the closed position, as applicable.
    - ii) To remove accumulated sludge or other residues from the bottom of surface impoundment.
  - B) Opening of a safety device, as defined in Section 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.
- 3) The owner or operator shall inspect the floating membrane cover in accordance with the following procedures:
  - A) The floating membrane cover and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover section seams or between the interface of the cover edge and its foundation mountings; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

- B) The owner or operator shall perform an initial inspection of the floating membrane cover and its closure devices on or before the date that the surface impoundment becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in subsection (g) of this Section.
  - C) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (f) of this Section.
  - D) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 725.990(c).
- d) The owner or operator that controls air pollutant emissions from a surface impoundment using a cover vented to a control device shall meet the requirements specified in subsections (d)(1) through (d)(3) of this Section.
- 1) The surface impoundment must be covered by a cover and vented directly through a closed-vent system to a control device in accordance with the following requirements:
    - A) The cover and its closure devices must be designed to form a continuous barrier over the entire surface area of the liquid in the surface impoundment.
    - B) Each opening in the cover not vented to the control device must be equipped with a closure device. If the pressure in the vapor headspace underneath the cover is less than atmospheric pressure when the control device is operating, the closure devices must be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the cover is equal to or greater than atmospheric pressure when the control device is operating, the closure device must be designed to operate with no detectable

organic emissions using the procedure specified in Section 725.984(d).

- C) The cover and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the cover and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the cover and closure devices must include the following: the organic vapor permeability; the effects of any contact with the liquid or its vapors managed in the surface impoundment; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the surface impoundment on which the cover is installed.
  - D) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 725.988.
- 2) Whenever a hazardous waste is in the surface impoundment, the cover must be installed with each closure device secured in the closed position and the vapor headspace underneath the cover vented to the control device except as follows:
- A) Venting to the control device is not required, and opening of closure devices or removal of the cover is allowed at the following times:
    - i) To provide access to the surface impoundment for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the surface impoundment, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the surface impoundment.

- ii) To remove accumulated sludge or other residues from the bottom of surface impoundment.
- B) Opening of a safety device, as defined in Section 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.
- 3) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the following procedures:
  - A) The surface impoundment cover and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover section seams or between the interface of the cover edge and its foundation mountings; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.
  - B) The closed-vent system and control device must be inspected and monitored by the owner or operator in accordance with the procedures specified in Section 725.988.
  - C) The owner or operator shall perform an initial inspection of the air emission control equipment on or before the date that the surface impoundment becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in subsection (g) of this Section.
  - D) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (f) of this Section.
  - E) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 725.990(c).

- e) The owner or operator shall transfer hazardous waste to a surface impoundment subject to this Section in accordance with the following requirements:
- 1) Transfer of hazardous waste, except as provided in subsection (e)(2) of this Section, to the surface impoundment from another surface impoundment subject to this Section or from a tank subject to Section 725.985 must be conducted using continuous hard-piping or another closed system that does not allow exposure of the waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the requirements of 40 CFR 63, Subpart RR, "National Emission Standards for Individual Drain Systems", incorporated by reference in 35 Ill. Adm. Code 720.111.
  - 2) The requirements of subsection (e)(1) of this Section do not apply when transferring a hazardous waste to the surface impoundment under either of the following conditions:
    - A) The hazardous waste meets the average VO concentration conditions specified in Section 725.983(c)(1) at the point of waste origination.
    - B) The hazardous waste has been treated by an organic destruction or removal process to meet the requirements in Section 725.983(c)-(2).
- f) The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of subsection (c)(3) or (d)(3) of this Section as follows:
- 1) The owner or operator shall make first efforts at repair of the defect no later than five calendar days after detection, and repair must be completed as soon as possible but no later than 45 calendar days after detection except as provided in subsection (f)(2) of this Section.
  - 2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the surface impoundment and no alternative capacity is available at the site to accept the hazardous waste normally managed in the surface

impoundment. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Repair of the defect must be completed before the process or unit resumes operation.

- g) Following the initial inspection and monitoring of the cover as required by the applicable provisions of this Subpart, subsequent inspection and monitoring may be performed at intervals longer than one year in the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions. In this case, the owner or operator may designate the cover as an "unsafe to inspect and monitor cover" and comply with all of the following requirements:
- 1) Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required.
  - 2) Develop and implement a written plan and schedule to inspect and monitor the cover using the procedures specified in the applicable Section of this Subpart as frequently as practicable during those times when a worker can safely access the cover.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 725.988 Standards: Closed-~~vent~~Vent Systems and Control Devices

- a) This Section applies to each closed-vent system and control device installed and operated by the owner or operator to control air emissions in accordance with standards of this Subpart.
- b) The closed-vent system must meet the following requirements:
  - 1) The closed-vent system must route the gases, vapors, and fumes emitted from the hazardous waste in the waste management unit to a control device that meets the requirements specified in subsection (c) of this Section.
  - 2) The closed-vent system must be designed and operated in accordance with the requirements specified in Section 725.933(j).

- 3) When the closed-vent system includes bypass devices that could be used to divert the gas or vapor stream to the atmosphere before entering the control device, each bypass device must be equipped with either a flow indicator as specified in subsection (b)(3)(A) of this Section or a seal or locking device as specified in subsection (b)-(3)(B) of this Section. For the purpose of complying with this subsection, low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, spring-loaded pressure relief valves, and other fittings used for safety purposes are not considered to be bypass devices.
    - A) If a flow indicator is used to comply with this subsection (b)(3), the indicator must be installed at the inlet to the bypass line used to divert gases and vapors from the closed-vent system to the atmosphere at a point upstream of the control device inlet. For the purposes of this subsection, a flow indicator means a device which indicates the presence of either gas or vapor flow in the bypass line.
    - B) If a seal or locking device is used to comply with this subsection (b)(3), the device must be placed on the mechanism by which the bypass device position is controlled (e.g., valve handle or damper lever) when the bypass device is in the closed position such that the bypass device cannot be opened without breaking the seal or removing the lock. Examples of such devices include, but are not limited to, a car-seal or a lock-and-key configuration valve. The owner or operator shall visually inspect the seal or closure mechanism at least once every month to verify that the bypass mechanism is maintained in the closed position.
  - 4) The closed-vent system must be inspected and monitored by the owner or operator in accordance with the procedure specified in Section 725.933(k).
- c) The control device must meet the following requirements:
- 1) The control device must be one of the following devices:

- A) A control device designed and operated to reduce the total organic content of the inlet vapor stream vented to the control device by at least 95% by weight;
  - B) An enclosed combustion device designed and operated in accordance with the requirements of Section 725.933(c); or
  - C) A flare designed and operated in accordance with the requirements of Section 725.933(d).
- 2) The owner or operator that elects to use a closed-vent system and control device to comply with the requirements of this Section shall comply with the requirements specified in subsections (c)(2)(A) through (c)(2)(G) of this Section.
- A) Periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of subsections (c)(1)(A), (c)(1)(B), or (c)(1)(C) of this Section, as applicable, must not exceed 240 hours per year.
  - B) The specifications and requirements in subsections (c)(1)(A), (c)(1)(B), and (c)(1)(C) of this Section for control devices do not apply during periods of planned routine maintenance.
  - C) The specifications and requirements in subsections (c)(1)(A), (c)(1)(B), and (c)(1)(C) of this Section for control devices do not apply during a control device system malfunction.
  - D) The owner or operator shall demonstrate compliance with the requirements of subsection (c)(2)(A) of this Section (i.e., planned routine maintenance of a control device, during which the control device does not meet the specifications of subsections (c)(1)(A), (c)(1)(B), or (c)(1)(C) of this Section, as applicable, must not exceed 240 hours per year) by recording the information specified in Section 725.990(e)(1)(E).
  - E) The owner or operator shall correct control device system malfunctions as soon as practicable after their occurrence in order

to minimize excess emissions of air pollutants.

- F) The owner or operator shall operate the closed-vent system so that gases, vapors, or fumes are not actively vented to the control device during periods of planned maintenance or control device system malfunction (i.e., periods when the control device is not operating or not operating normally), except in cases when it is necessary to vent the gases, vapors, or fumes to avoid an unsafe condition or to implement malfunction corrective actions or planned maintenance actions.
- 3) The owner or operator using a carbon adsorption system to comply with subsection (c)(1) of this Section shall operate and maintain the control device in accordance with the following requirements:
    - A) Following the initial startup of the control device, all activated carbon in the control device must be replaced with fresh carbon on a regular basis in accordance with the requirements of Section 725.933(g) or 725.933(h).
    - B) All carbon removed from the control device must be managed in accordance with the requirements of Section 725.933(m).
  - 4) An owner or operator using a control device other than a thermal vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system to comply with subsection (c)(1) of this Section shall operate and maintain the control device in accordance with the requirements of Section 725.933(i).
  - 5) The owner or operator shall demonstrate that a control device achieves the performance requirements of subsection (c)(1) of this Section as follows:
    - A) An owner or operator shall demonstrate using either a performance test, as specified in subsection (c)(5)(C) of this Section, or a design analysis, as specified in subsection (c)(5)(D) of this Section, the performance of each control device except for the following:

- i) A flare;
  - ii) A boiler or process heater with a design heat input capacity of 44 megawatts or greater;
  - iii) A boiler or process heater into which the vent stream is introduced with the primary fuel;
  - iv) A boiler or industrial furnace burning hazardous waste for which the owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 and has designed and operates in accordance with the requirements of 35 Ill. Adm. Code 726.Subpart H; or
  - v) A boiler or industrial furnace burning hazardous waste for which the owner or operator has designed and operates in accordance with the interim status requirements of 35 Ill. Adm. Code 726.Subpart H.
- B) An owner or operator shall demonstrate the performance of each flare in accordance with the requirements specified in Section 725.933(e).
- C) For a performance test conducted to meet the requirements of subsection (c)(5)(A) of this Section, the owner or operator shall use the test methods and procedures specified in Section 725.934(c)(1) through (c)(4).
- D) For a design analysis conducted to meet the requirements of subsection (c)(5)(A) of this Section, the design analysis must meet the requirements specified in Section 725.935(b)-(4)(C).
- E) The owner or operator shall demonstrate that a carbon adsorption system achieves the performance requirements of subsection (c)(1) of this Section based on the total quantity of organics vented to the atmosphere from all carbon adsorption system equipment that is used for organic adsorption, organic desorption or carbon regeneration, organic recovery, and carbon disposal.

- 6) If the owner or operator and the Agency do not agree on a demonstration of control device performance using a design analysis, then the disagreement must be resolved using the results of a performance test performed by the owner or operator in accordance with the requirements of subsection (c)(5)(C) of this Section. The Agency may choose to have an authorized representative observe the performance test.
- 7) The control device must be inspected and monitored by the owner or operator in accordance with the procedures specified in Section ~~725.1033~~725.933(f)(2) and (k). The readings from each monitoring device required by Section ~~725.1033~~725.933(f)(2) must be inspected at least once each operating day to check control device operation. Any necessary corrective measures must be immediately implemented to ensure the control device is operated in compliance with the requirements of this Section.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### Section 725.989 Inspection and Monitoring Requirements

- a) The owner or operator shall inspect and monitor air emission control equipment used to comply with this Subpart in accordance with the requirements specified in Sections 725.985 through 725.988.
- b) The owner or operator shall develop and implement a written plan and schedule to perform the inspections and monitoring required by subsection (a) of this Section. The owner or operator shall incorporate this plan and schedule into the facility inspection plan required under Section ~~265.115~~725.115.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### Section 725.990 Recordkeeping Requirements

- a) Each owner or operator of a facility subject to requirements in this Subpart shall record and maintain the information specified in subsections (b) through (i) of this Section, as applicable to the facility. Except for air emission control equipment design documentation and information required by subsection (i) of this Section, records required by this Section

must be maintained in the operating record for a minimum of three years. Air emission control equipment design documentation must be maintained in the operating record until the air emission control equipment is replaced or is otherwise no longer in service. Information required by subsection (i) of this Section must be maintained in the operating record for as long as the tank or container is not using air emission controls specified in Sections ~~264.984~~724.984 through ~~264.987~~724.987, in accordance with the conditions specified in Section 724.984(d).

- b) The owner or operator of a tank using air emission controls in accordance with the requirements of Section 725.985 shall prepare and maintain records for the tank that include the following information:
  - 1) For each tank using air emission controls in accordance with the requirements of Section 725.985 of this Subpart, the owner or operator shall record:
    - A) A tank identification number (or other unique identification description as selected by the owner or operator).
    - B) A record for each inspection required by Section 725.985 that includes the following information:
      - i) Date inspection was conducted.
      - ii) For each defect detected during the inspection, the following information: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of Section 725.985, the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.
  - 2) In addition to the information required by subsection (b)(1) of this Section, the owner or operator shall record the following information, as applicable to the tank:
    - A) The owner or operator using a fixed roof to comply with the Tank Level 1 control

requirements specified in Section 725.985(c) shall prepare and maintain records for each determination for the maximum organic vapor pressure of the hazardous waste in the tank performed in accordance with the requirements of Section 725.985(c). The records must include the date and time the samples were collected, the analysis method used, and the analysis results.

- B) The owner or operator using an internal floating roof to comply with the Tank Level 2 control requirements specified in Section 725.985(e) shall prepare and maintain documentation describing the floating roof design.
- C) Owners and operators using an external floating roof to comply with the Tank Level 2 control requirements specified in Section 725.985(f) shall prepare and maintain the following records:
  - i) Documentation describing the floating roof design and the dimensions of the tank.
  - ii) Records for each seal gap inspection required by Section 725.985(f)(3) describing the results of the seal gap measurements. The records must include the date that the measurements were performed, the raw data obtained for the measurements, and the calculations of the total gap surface area. In the event that the seal gap measurements do not conform to the specifications in Section 725.985(f)(1), the records must include a description of the repairs that were made, the date the repairs were made, and the date the tank was emptied, if necessary.
- D) Each owner or operator using an enclosure to comply with the Tank Level 2 control requirements specified in Section 725.985(i) shall prepare and maintain the following records:
  - i) Records for the most recent set of calculations and measurements performed by the owner or operator to verify that

the enclosure meets the criteria of a permanent total enclosure as specified in "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111.

- ii) Records required for the closed-vent system and control device in accordance with the requirements of subsection (e) of this Section.
- c) The owner or operator of a surface impoundment using air emission controls in accordance with the requirements of Section 725.986 shall prepare and maintain records for the surface impoundment that include the following information:
- 1) A surface impoundment identification number (or other unique identification description as selected by the owner or operator).
  - 2) Documentation describing the floating membrane cover or cover design, as applicable to the surface impoundment, that includes information prepared by the owner or operator or provided by the cover manufacturer or vendor describing the cover design, and certification by the owner or operator that the cover meets the specifications listed in Section 725.986(c).
  - 3) A record for each inspection required by Section 725.986 that includes the following information:
    - A) Date inspection was conducted.
    - B) For each defect detected during the inspection the following information: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of Section 725.986(f), the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.
  - 4) For a surface impoundment equipped with a cover and vented through a closed-vent system to a control device, the owner or operator shall

prepare and maintain the records specified in subsection (e) of this Section.

- d) The owner or operator of containers using Container Level 3 air emission controls in accordance with the requirements of Section 725.987 shall prepare and maintain records that include the following information:
  - 1) Records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111.
  - 2) Records required for the closed-vent system and control device in accordance with the requirements of subsection (e) of this Section.
- e) The owner or operator using a closed-vent system and control device in accordance with the requirements of Section 725.988 shall prepare and maintain records that include the following information:
  - 1) Documentation for the closed-vent system and control device that includes:
    - A) Certification that is signed and dated by the owner or operator stating that the control device is designed to operate at the performance level documented by a design analysis as specified in subsection (e)(1)(B) of this Section or by performance tests as specified in subsection (e)(1)(C) of this Section when the tank, surface impoundment, or container is or would be operating at capacity or the highest level reasonably expected to occur.
    - B) If a design analysis is used, then design documentation, as specified in Section 725.1035725.935(b)(4). The documentation must include information prepared by the owner or operator or provided by the control device manufacturer or vendor that describes the control device design in accordance with Section 725.1035725.935(b)(4)(C) and certification by the owner or operator that

the control equipment meets the applicable specifications.

- C) If performance tests are used, then a performance test plan as specified in Section ~~265.935~~725.935(b)(3) and all test results.
- D) Information as required by ~~40-CFR 265.1035(e)(1)~~Section 725.935(c)(1) and ~~Section 725.935~~(c)(2), as applicable.
- E) An owner or operator shall record, on a semiannual basis, the information specified in subsections (e)(1)(E)(i) and (e)(1)(E)(ii) of this Section for those planned routine maintenance operations that would require the control device not to meet the requirements of Section 725.988(c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable.
  - i) A description of the planned routine maintenance that is anticipated to be performed for the control device during the next six-month period. This description must include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.
  - ii) A description of the planned routine maintenance that was performed for the control device during the previous six-month period. This description must include the type of maintenance performed and the total number of hours during those six months that the control device did not meet the requirements of Section 725.988(c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable, due to planned routine maintenance.
- F) An owner or operator shall record the information specified in subsections (e)(1)-(F)(i) through (e)(1)(F)(iii) of this Section for those unexpected control device system malfunctions that would require the control device not to meet the requirements of Section 725.988(c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable.

- i) The occurrence and duration of each malfunction of the control device system.
    - ii) The duration of each period during a malfunction when gases, vapors, or fumes are vented from the waste management unit through the closed-vent system to the control device while the control device is not properly functioning.
    - iii) Actions taken during periods of malfunction to restore a malfunctioning control device to its normal or usual manner of operation.
  - G) Records of the management of carbon removed from a carbon adsorption system conducted in accordance with Section 725.988(c)(3)(B).
- f) The owner or operator of a tank, surface impoundment, or container exempted from standards in accordance with the provisions of Section 725.983(c) of this Subpart shall prepare and maintain the following records, as applicable:
- 1) For tanks, surface impoundments, or containers exempted under the hazardous waste organic concentration conditions specified in Section 725.983 (c)(1) or (c)(2) of this Subpart, the owner or operator shall record the information used for each waste determination (e.g., test results, measurements, calculations, and other documentation) in the facility operating log. If analysis results for waste samples are used for the waste determination, then the owner or operator shall record the date, time, and location that each waste sample is collected in accordance with applicable requirements of Section 725.984 of this Subpart.
  - 2) For tanks, surface impoundments, or containers exempted under the provisions of Section 725.983(c)(2)(vii) or Section 725.983(c)(2)(viii) of this Subpart, the owner or operator shall record the identification number for the incinerator, boiler, or industrial furnace in which the hazardous waste is treated.
- g) An owner or operator designating a cover as "unsafe to inspect and monitor" pursuant to Section 725.985(1) shall record in a log that is kept in the facility

operating record the following information: the identification numbers for waste management units with covers that are designated as "unsafe to inspect and monitor", the explanation for each cover stating why the cover is unsafe to inspect and monitor, and the plan and schedule for inspecting and monitoring each cover.

- h) The owner or operator of a facility that is subject to this Subpart and to the control device standards in 40 CFR 60, Subpart VV, or 40 CFR 61, Subpart V, incorporated by reference in 35 Ill. Adm. Code 270.111, may elect to demonstrate compliance with the applicable Sections of this Subpart by documentation either pursuant to this Subpart, or pursuant to the provisions of 40 CFR 60, Subpart VV or 40 CFR 61, Subpart V, to the extent that the documentation required by 40 CFR 60 or 61 duplicates the documentation required by this Section.
- i) For each tank or container not using air emission controls specified in Sections 725.985 through 725.988 in accordance with the conditions specified in Section 725.980(d), the owner or operator shall record and maintain the following information:
  - 1) A list of the individual organic peroxide compounds manufactured at the facility that meet the conditions specified in Section 725.980(d)(1).
  - 2) A description of how the hazardous waste containing the organic peroxide compounds identified pursuant to subsection (i)(1) are managed at the facility in tanks and containers. This description must include the following information:
    - A) For the tanks used at the facility to manage this hazardous waste, sufficient information must be provided to describe each tank: a facility identification number for the tank, the purpose and placement of this tank in the management train of this hazardous waste, and the procedures used to ultimately dispose of the hazardous waste managed in the tanks.
    - B) For containers used at the facility to manage this hazardous waste, sufficient information must be provided to describe the following for each container: a facility identification number for the container or group of containers; the purpose and

placement of this container or group of containers in the management train of this hazardous waste; and the procedures used to ultimately dispose of the hazardous waste handled in the containers.

- 3) An explanation of why managing the hazardous waste containing the organic peroxide compounds identified pursuant to subsection (i)(1) of this Section in the tanks or containers identified pursuant to subsection (i)(2) of this Section would create an undue safety hazard if the air emission controls specified in Sections 725.985 through 725.988 were installed and operated on these waste management units. This explanation must include the following information:
  - A) For tanks used at the facility to manage this hazardous waste, sufficient information must be provided to explain: how use of the required air emission controls on the tanks would affect the tank design features and facility operating procedures currently used to prevent an undue safety hazard during the management of this hazardous waste in the tanks; and why installation of safety devices on the required air emission controls, as allowed under this Subpart, would not address those situations in which evacuation of tanks equipped with these air emission controls is necessary and consistent with good engineering and safety practices for handling organic peroxides.
  - B) For containers used at the facility to manage this hazardous waste, sufficient information must be provided to explain: how use of the required air emission controls on the containers would affect the container design features and handling procedures currently used to prevent an undue safety hazard during management of this hazardous waste in the containers; and why installation of safety devices on the required air emission controls, as allowed under this Subpart, would not address those situations in which evacuation of containers equipped with these air emission controls is necessary and consistent with good engineering and safety practices for handling organic peroxides.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

SUBPART EE: HAZARDOUS WASTE MUNITIONS AND EXPLOSIVES STORAGE

Section 725.1200 Applicability

The requirements of this Subpart EE apply to owners or operators who store munitions and explosive hazardous wastes, except as Section 725.101 provides otherwise.

BOARD NOTE: Depending on explosive hazards, hazardous waste munitions and explosives may also be managed in other types of storage units, including containment buildings (725.Subpart DD of this Part), tanks (725.Subpart J of this Part), or containers (725.Subpart I of this Part); see 35 Ill. Adm. Code 726.305 for storage of waste military munitions.

(Source: Added at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 725.1201 Design and Operating Standards

- a) An owner or operator of a hazardous waste munitions and explosives storage unit shall design and operate the unit with containment systems, controls, and monitoring, that fulfill each of the following requirements:
- 1) The owner or operator minimizes the potential for detonation or other means of release of hazardous waste, hazardous constituents, hazardous decomposition products, or contaminated run-off to the soil, ground water, surface water, and atmosphere;
  - 2) The owner or operator provides a primary barrier, which may be a container (including a shell) or tank, designed to contain the hazardous waste;
  - 3) For wastes stored outdoors, the owner or operator provides that the waste and containers will not be in standing precipitation;
  - 4) For liquid wastes, the owner or operator provides a secondary containment system that assures that any released liquids are contained and promptly detected and removed from the waste area or a vapor detection system that assures that any released liquids or vapors are promptly detected

and an appropriate response taken (e.g., additional containment, such as overpacking or removal from the waste area); and

5) The owner or operator provides monitoring and inspection procedures that assure the controls and containment systems are working as designed and that releases that may adversely impact human health or the environment are not escaping from the unit.

b) Hazardous waste munitions and explosives stored under this Subpart EE may be stored in one of the following:

1) Earth-covered magazines. The owner or operator of an earth-covered magazine shall fulfill each of the following requirements:

A) The magazine is constructed of waterproofed, reinforced concrete or structural steel arches, with steel doors that are kept closed when not being accessed;

B) The magazine is so designed and constructed that it fulfills each of the following requirements:

i) The magazine is of sufficient strength and thickness to support the weight of any explosives or munitions stored and any equipment used in the unit;

ii) The magazine provides working space for personnel and equipment in the unit; and

iii) The magazine can withstand movement activities that occur in the unit; and

C) The magazine is located and designed, with walls and earthen covers that direct an explosion in the unit in a safe direction, so as to minimize the propagation of an explosion to adjacent units and to minimize other effects of any explosion.

2) Above-ground magazines. Above-ground magazines must be located and designed so as to minimize the propagation of an explosion to adjacent units and to minimize other effects of any explosion.

3) Outdoor or open storage areas. Outdoor or open storage areas must be located and designed so as

to minimize the propagation of an explosion to adjacent units and to minimize other effects of any explosion.

- c) An owner or operator shall store hazardous waste munitions and explosives in accordance with a Standard Operating Procedure that specifies procedures which ensure safety, security, and environmental protection. If these procedures serve the same purpose as the security and inspection requirements of Section 725.114, the preparedness and prevention procedures of 725.Subpart C of this Part, and the contingency plan and emergency procedures requirements of 725.Subpart D of this Part, then the Standard Operating Procedure may be used to fulfill those requirements.
- d) An owner or operator shall package hazardous waste munitions and explosives to ensure safety in handling and storage.
- e) An owner or operator shall inventory hazardous waste munitions and explosives inventoried at least annually.
- f) An owner or operator shall inspect and monitor hazardous waste munitions and explosives and their storage units as necessary to ensure explosives safety and to ensure that there is no migration of contaminants out of the unit.

(Source: Added at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 725.1202 Closure and Post-Closure Care

- a) At closure of a magazine or unit which stored hazardous waste under this subpart, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components, contaminated subsoils, and structures and equipment contaminated with waste and manage them as hazardous waste unless 35 Ill. Adm. Code 721.103(d) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for magazines or units must meet all of the requirements specified in 725.Subparts G and H of this Part, except that the owner or operator may defer closure of the unit as long as it remains in service as a munitions or explosives magazine or storage unit.
- b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils,

structures, and equipment as required in subsection (a) of this Section, the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, the owner or operator shall close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills (see 35 Ill. Adm. Code 724.410).

(Source: Added at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 725.Appendix F Compounds With Henry's Law Constant Less Than 0.1 Y/X (at 25° C)

Compound name	CAS No.
Acetaldol	107-89-1
Acetamide	60-35-5
2-Acetylaminofluorene	53-96-3
3-Acetyl-5-hydroxypiperidine	
3-Acetylpiperidine	618-42-8
1-Acetyl-2-thiourea	591-08-2
Acrylamide	79-06-1
Acrylic acid	79-10-7
Adenine	73-24-5
Adipic acid	124-04-9
Adiponitrile	111-69-3
Alachlor	15972-60-8
Aldicarb	116-06-3
Ametryn	834-12-8
4-Aminobiphenyl	92-67-1
4-Aminopyridine	504-24-5
Aniline	62-53-3
o-Anisidine	90-04-0
Anthraquinone	84-65-1
Atrazine	1912-24-9
Benzeneearsonic acid	98-05-5
Benzenesulfonic acid	98-11-3
Benzidine	92-87-5
Benzo(a)anthracene	56-55-3
Benzo(k)fluoranthene	207-08-9
Benzoic acid	65-85-0
Benzo(g,h,i)perylene	191-24-2
Benzo(a)pyrene	50-32-8
Benzyl alcohol	100-51-6
gamma-BHC	58-89-9
Bis(2-ethylhexyl)phthalate	117-81-7
Bromochloromethyl acetate	
Bromoxynil	1689-84-5
Butyric acid	107-92-6

Caprolactam (hexahydro-2H-azepin-2-one)	105-60-2
Catechol (o-dihydroxybenzene)	120-80-9
Cellulose	9004-34-6
Cell wall	
Chlorhydrin (3-Chloro-1,2-propanediol)	96-24-2
Chloroacetic acid	79-11-8
2-Chloroacetophenone	93-76-5
p-Chloroaniline	106-47-8
p-Chlorobenzophenone	134-85-0
Chlorobenzylate	510-15-6
p-Chloro-m-cresol (6-chloro-m-cresol)	59-50-7
3-Chloro-2,5-diketopyrrolidine	
Chloro-1,2-ethane diol	
4-Chlorophenol	106-48-9
Chlorophenol polymers (2-chlorophenol & 4-chlorophenol)	95-57-8 & 106-48-9
1-(o-Chlorophenyl)thiourea	5344-82-1
Chrysene	218-01-9
Citric acid	77-92-9
Creosote	8001-58-9
m-Cresol	108-39-4
o-Cresol	95-48-7
p-Cresol	106-44-5
Cresol (mixed isomers)	1319-77-3
4-Cumylphenol	27576-86
Cyanide	57-12-5
4-Cyanomethyl benzoate	
Diazinon	333-41-5
Dibenzo(a,h)anthracene	53-70-3
3,5-Dibromo-4-hydroxybenzotrile	1689-84-5
Dibutylphthalate	84-74-2
2,5-Dichloroaniline (N,N'-dichloroaniline)	95-82-9
2,6-Dichlorobenzotrile	1194-65-6
2,6-Dichloro-4-nitroaniline	99-30-9
2,5-Dichlorophenol	
3,4-Dichlorotetrahydrofuran	3511-19
Dichlorvos	106-47-8
Diethanolamine	111-42-2
N,N-Diethylaniline	91-66-7
Diethylene glycol	111-46-6
Diethylene glycol dimethyl ether (dimethyl Carbitol)	111-96-6
Diethylene glycol monobutyl ether (butyl Carbitol)	112-34-5
Diethylene glycol monoethyl ether acetate (Carbitol acetate)	112-15-2
Diethylene glycol monoethyl ether (Carbitol Cellosolve)	111-90-0
Diethylene glycol monomethyl ether (methyl Carbitol)	111-77-3
N,N'-Diethylhydrazine	1615-80-1
Diethyl(4-methylumbelliferyl)thionophosphate	299-45-6

Diethylphosphorothioate	126-75-0
N,N'-Diethylpropionamide	15299-99-7
Dimethoate	60-51-5
4-Dimethylaminoazobenzene	60-11-7
7,12-Dimethylbenz(a)anthracene	57-97-6
3,3-Dimethylbenzidine	119-93-7
Dimethylcarbamoyl chloride	79-44-7
Dimethyldisulfide	624-92-0
Dimethylformamide	68-12-2
1,1-Dimethylhydrazine	57-14-7
Dimethylphthalate	131-11-3
Dimethylsulfone	67-71-0
Dimethylsulfoxide	67-68-5
2,3-Dimethoxystrychnidin-10-one	357-57-3
4,6-Dinitro-o-cresol	534-52-1
1,2-Diphenylhydrazine	122-66-7
Dipropylene glycol (1,1'-oxydi-2-propanol)	110-98-5
Endrin	72-20-8
Epinephrine	51-43-4
Ethyl carbamate (urethane)	51-79-6
Ethylene glycol	107-21-1
Ethylene glycol monobutyl ether (butyl Cellosolve)	111-76-2
Ethylene glycol monoethyl ether (Cellosolve)	110-80-5
Ethylene glycol monoethyl ether acetate (Cellosolve acetate)	111-15-9
Ethylene glycol monomethyl ether (methyl Cellosolve)	109-86-4
Ethylene glycol monophenyl ether (phenyl Cellosolve)	122-99-6
Ethylene glycol monopropyl ether (propyl Cellosolve)	2807-30-9
Ethylene thiourea (2-imidazolidinethione)	9-64-57
4-Ethylmorpholine	100-74-3
3-Ethylphenol	620-17-7
Fluoroacetic acid, sodium salt	62-74-8
Formaldehyde	50-00-0
Formamide	75-12-7
Formic acid	64-18-6
Fumaric acid	110-17-8
Glutaric acid	110-94-1
Glycerin (Glycerol)	56-81-5
Glycidol	556-52-5
Glycinamide	598-41-4
Glyphosate	1071-83-6
Guthion	86-50-0
Hexamethylene-1,6-diisocyanate (1,6- diisocyanatohexane)	822-06-0
Hexamethyl phosphoramidate	680-31-9
Hexanoic acid	142-62-1
Hydrazine	302-01-2
Hydrocyanic acid	74-90-8

Hydroquinone	123-31-9
Hydroxy-2-propionitrile (hydracrylonitrile)	109-78-4
Indeno(1,2,3-cd)pyrene	193-39-5
Lead acetate	301-04-2
Lead subacetate (lead acetate, monobasic)	1335-32-6
Leucine	61-90-5
Malathion	121-75-5
Maleic acid	110-16-7
Maleic anhydride	108-31-6
Mesityl oxide	141-79-7
Methane sulfonic acid	75-75-2
Methomyl	16752-77-5
p-Methoxyphenol	150-76-5
Methylacrylate	96-33-3
4,4'-Methylene-bis-(2-chloroaniline)	101-14-4
4,4'-Methylenediphenyl diisocyanate (diphenyl methane diisocyanate)	101-68-8
4,4'-Methylenedianiline	101-77-9
Methylene diphenylamine (MDA)	
5-Methylfurfural	620-02-0
Methylhydrazine	60-34-4
Methyliminoacetic acid	
Methyl methane sulfonate	66-27-3
1-Methyl-2-methoxyaziridine	
Methylparathion	298-00-0
Methyl sulfuric acid (sulfuric acid, dimethyl ester)	77-78-1
4-Methylthiophenol	106-45-6
Monoethanolamine	141-43-5
Monomethylformamide (N-methylformamide)	123-39-7
Nabam	142-59-6
alpha-Naphthol	90-15-3
beta-Naphthol	135-19-3
alpha-Naphthylamine	134-32-7
beta-Naphthylamine	91-59-8
Neopentyl glycol	126-30-7
Niacinamide	98-92-0
o-Nitroaniline	88-74-4
Nitroglycerin	55-63-0
2-Nitrophenol	88-75-5
4-Nitrophenol	100-02-7
N-Nitrosodimethylamine	62-75-9
Nitrosoguanidine	674-81-7
N-Nitroso-n-methylurea	684-93-5
N-Nitrosomorpholine (4-nitrosomorpholine)	59-89-2
Oxalic acid	144-62-7
Parathion	56-38-2
Pentaerythritol	115-77-5
Phenacetin	62-44-2
Phenol	108-95-2
Phenylacetic acid	103-82-2

m-Phenylene diamine	108-45-2
o-Phenylene diamine	95-54-5
p-Phenylene diamine	106-50-3
Phenyl mercuric acetate	62-38-4
Phorate	298-02-2
Phthalic anhydride	85-44-9
<b>alpha</b> -Picoline (2-methyl pyridine)	109-06-8
1,3-Propane sulfone	1120-71-4
<b>beta</b> -Propiolactone	57-57-8
Proporur (Baygon)	
Propylene glycol	57-55-6
Pyrene	129-00-0
Pyridinium bromide	39416-48-3
Quinoline	91-22-5
Quinone (p-benzoquinone)	106-51-4
Resorcinol	108-46-3
Simazine	122-34-9
Sodium acetate	127-09-3
Sodium formate	141-53-7
Strychnine	57-24-9
Succinic acid	110-15-6
Succinimide	123-56-8
Sulfanilic acid	121-47-1
Terephthalic acid	100-21-0
Tetraethyldithiopyrophosphate	3689-24-5
Tetraethylenepentamine	112-57-2
Thiofanox	39196-18-4
Thiosemicarbazide	79-19-6
2,4-Toluenediamine	95-80-7
2,6-Toluenediamine	823-40-5
3,4-Toluenediamine	496-72-0
2,4-Toluene diisocyanate	584-84-9
p-Toluic acid	99-94-5
m-Toluidine	108-44-1
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1
Triethanolamine	102-71-6
Triethylene glycol dimethyl ether	
Tripropylene glycol	24800-44-0
Warfarin	81-81-2
3,4-Xylenol (3,4-dimethylphenol)	95-65-8

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective  
\_\_\_\_\_)

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

PART 726  
STANDARDS FOR THE MANAGEMENT OF SPECIFIC HAZARDOUS  
WASTE AND SPECIFIC TYPES OF HAZARDOUS WASTE MANAGEMENT  
FACILITIES

SUBPART C: RECYCLABLE MATERIALS USED IN A MANNER  
CONSTITUTING DISPOSAL

Section	
726.120	Applicability
726.121	Standards applicable to generators and transporters of materials used in a manner that constitutes disposal
726.122	Standards applicable to storers, who are not the ultimate users, of materials that are to be used in a manner that constitutes disposal
726.123	Standards Applicable to Users of Materials that are Used in a Manner that Constitutes Disposal

SUBPART D: HAZARDOUS WASTE BURNED FOR ENERGY RECOVERY

Section	
726.130	Applicability (Repealed)
726.131	Prohibitions (Repealed)
726.132	Standards applicable to generators of hazardous waste fuel (Repealed)
726.133	Standards applicable to transporters of hazardous waste fuel (Repealed)
726.134	Standards applicable to marketers of hazardous waste fuel (Repealed)
726.135	Standards applicable to burners of hazardous waste fuel (Repealed)
726.136	Conditional exemption for spent materials and by-products exhibiting a characteristic of hazardous waste (Repealed)

SUBPART E: USED OIL BURNED FOR ENERGY RECOVERY  
(Repealed)

Section	
726.140	Applicability (Repealed)
726.141	Prohibitions (Repealed)
726.142	Standards applicable to generators of used oil burned for energy recovery (Repealed)
726.143	Standards applicable to marketers of used oil burned for energy recovery (Repealed)
726.144	Standards applicable to burners of used oil burned for energy recovery (Repealed)

SUBPART F: RECYCLABLE MATERIALS UTILIZED FOR PRECIOUS  
METAL RECOVERY

Section	
726.170	Applicability and requirements

## SUBPART G: SPENT LEAD-ACID BATTERIES BEING RECLAIMED

## Section

726.180 Applicability and requirements

## SUBPART H: HAZARDOUS WASTE BURNED IN BOILERS AND INDUSTRIAL FURNACES

## Section

726.200 Applicability  
 726.201 Management prior to Burning  
 726.202 Permit standards for Burners  
 726.203 Interim Status Standards for Burners  
 726.204 Standards to Control Organic Emissions  
 726.205 Standards to control PM  
 726.206 Standards to Control Metals Emissions  
 726.207 Standards to control HCl and Chlorine Gas Emissions  
 726.208 Small quantity On-site Burner Exemption  
 726.209 Low risk waste Exemption  
 726.210 Waiver of DRE trial burn for Boilers  
 726.211 Standards for direct Transfer  
 726.212 Regulation of Residues  
 726.219 Extensions of Time

SUBPART M: MILITARY MUNITIONSSection

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726.302 Definition of Solid Waste  
726.303 Standards Applicable to the Transportation of Solid Waste Military Munitions  
726.304 Standards Applicable to Emergency Responses  
726.305 Standards Applicable to the Storage of Solid Waste Military Munitions  
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726.Appendix A Tier I and Tier II Feed Rate and Emissions Screening Limits for Metals  
 726.Appendix B Tier I Feed Rate Screening Limits for Total Chlorine  
 726.Appendix C Tier II Emission Rate Screening Limits for Free Chlorine and Hydrogen Chloride  
 726.Appendix D Reference Air Concentrations  
 726.Appendix E Risk Specific Doses  
 726.Appendix F Stack Plume Rise  
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 726.Appendix H Potential PICs for Determination of Exclusion of Waste-Derived Residues  
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- 726.Appendix L Nickel or Chromium-Bearing Materials that may be Processed in Exempt Nickel-Chromium Recovery Furnaces
- 726.Appendix M Mercury-Bearing Wastes That May Be Processed in Exempt Mercury Recovery Units
- 726.Table A Exempt Quantities for Small Quantity Burner Exemption

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

SOURCE: Adopted in R85-22 at 10 Ill. Reg. 1162, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 14156, effective August 12, 1986; amended in R87-26 at 12 Ill. Reg. 2900, effective January 15, 1988; amended in R89-1 at 13 Ill. Reg. 18606, effective November 13, 1989; amended in R90-2 at 14 Ill. Reg. 14533, effective August 22, 1990; amended in R90-11 at 15 Ill. Reg. 9727, effective June 17, 1991; amended in R91-13 at 16 Ill. Reg. 9858, effective June 9, 1992; amended in R92-10 at 17 Ill. Reg. 5865, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20904, effective November 22, 1993; amended in R94-7 at 18 Ill. Reg. 12500, effective July 29, 1994; amended in R95-6 at 19 Ill. Reg. 10006, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 11263, effective August 1, 1996; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 754, effective December 16, 1997; amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

SUBPART H: HAZARDOUS WASTE BURNED IN BOILERS AND INDUSTRIAL FURNACES

Section 726.204 Standards to Control Organic Emissions

a) DRE standard.

- 1) General. Except as provided in subsection (a)(3) below, a BIF burning hazardous waste must achieve a DRE of 99.99% for all organic hazardous constituents in the waste feed. To demonstrate conformance with this requirement, 99.99% DRE must be demonstrated during a trial burn for each principal organic hazardous constituent (POHC) designated (under subsection (a)(2) below) in its permit for each waste feed. DRE is determined for each POHC from the following equation:

$$\text{DRE} = 100(I - O)/I$$

where:

I = Mass feed rate of one POHC in the hazardous waste fired to the BIF; and

O = Mass emission rate of the same POHC present in stack gas prior to release to the atmosphere.

- 2) Designation of POHCs. POHCs are those compounds for which compliance with the DRE requirements of this Section must be demonstrated in a trial burn in conformance with procedures prescribed in 35 Ill. Adm. Code 703.232. One or more POHCs must be designated by the Agency for each waste feed to be burned. POHCs must be designated based on the degree of difficulty of destruction of the organic constituents in the waste and on their concentrations or mass in the waste feed considering the results of waste analyses submitted with Part B of the permit application. POHCs are most likely to be selected from among those compounds listed in 35 Ill. Adm. Code 721.Appendix H that are also present in the normal waste feed. However, if the applicant demonstrates to the Agency that a compound not listed in 35 Ill. Adm. Code 721.Appendix H or not present in the normal waste feed is a suitable indicator of compliance with the DRE requirements of this Section, that compound must be designated as a POHC. Such POHCs need not be toxic or organic compounds.
- 3) Dioxin-listed waste. A BIF burning hazardous waste containing (or derived from) USEPA Hazardous Wastes Nos. F020, F021, F022, F023, F026 or F027 must achieve a destruction and removal efficiency (DRE) of 99.9999% for each POHC designated (under subsection (a)(2) above) in its permit. This performance must be demonstrated on POHCs that are more difficult to burn than tetra-, penta- and hexachlorodibenzo-p-dioxins and dibenzofurans. DRE is determined for each POHC from the equation in subsection (a)(1) above. In addition, the owner or operator of the BIF shall notify the Agency of intent to burn USEPA Hazardous Waste Nos. F020, F021, F022, F023, F026 or F027.
- 4) Automatic waiver of DRE trial burn. Owners and operators of boilers operated under the special operating requirements provided by Section 726.210 are considered to be in compliance with the DRE standard of subsection (a)(1) above and are exempt from the DRE trial burn.

- 5) Low risk waste. Owners and operators of BIFs that burn hazardous waste in compliance with the requirements of Section 726.209(a) are considered to be in compliance with the DRE standard of subsection (a)(1) above and are exempt from the DRE trial burn.
- b) CO standard.
- 1) Except as provided in subsection (c) below, the stack gas concentration of CO from a BIF burning hazardous waste cannot exceed 100 ppmv on an hourly rolling average basis (i.e., over any 60 minute period), continuously corrected to 7 percent oxygen, dry gas basis.
  - 2) CO and oxygen must be continuously monitored in conformance with "Performance Specifications for Continuous Emission Monitoring of Carbon Monoxide and Oxygen for Incinerators, Boilers, and Industrial Furnaces Burning Hazardous Waste" in Section 726.Appendix I.
  - 3) Compliance with the 100 ppmv CO limit must be demonstrated during the trial burn (for new facilities or an interim status facility applying for a permit) or the compliance test (for interim status facilities). To demonstrate compliance, the highest hourly rolling average CO level during any valid run of the trial burn or compliance test must not exceed 100 ppmv.
- c) Alternative CO standard.
- 1) The stack gas concentration of CO from a BIF burning hazardous waste may exceed the 100 ppmv limit provided that stack gas concentrations of HCs do not exceed 20 ppmv, except as provided by subsection (f) below for certain industrial furnaces.
  - 2) HC limits must be established under this Section on an hourly rolling average basis (i.e., over any 60 minute period), reported as propane, and continuously corrected to 7 percent oxygen, dry gas basis.
  - 3) HC must be continuously monitored in conformance with "Performance Specifications for Continuous Emission Monitoring of Hydrocarbons for Incinerators, Boilers, and Industrial Furnaces

Burning Hazardous Waste" in Section 726. Appendix I. CO and oxygen must be continuously monitored in conformance with subsection (b)(2) above.

- 4) The alternative CO standard is established based on CO data during the trial burn (for a new facility) and the compliance test (for an interim status facility). The alternative CO standard is the average over all valid runs of the highest hourly average CO level for each run. The CO limit is implemented on an hourly rolling average basis, and continuously corrected to 7 percent oxygen, dry gas basis.
- d) Special requirements for furnaces. Owners and operators of industrial furnaces (e.g., kilns, cupolas) that feed hazardous waste for a purpose other than solely as an ingredient (see Section 726.203(a)(5)(B)) at any location other than the end where products are normally discharged and where fuels are normally fired must comply with the HC limits provided by subsections (c) above or (f) below irrespective of whether stack gas CO concentrations meet the 100 ppmv limit of subsection (b) above.
  - e) Controls for dioxins and furans. Owners and operators of BIFs that are equipped with a dry PM control device that operates within the temperature range of 450 through 750° F, and industrial furnaces operating under an alternative HC limit established under subsection (f) below shall conduct a site-specific risk assessment as follows to demonstrate that emissions of chlorinated dibenzo-p-dioxins and dibenzofurans do not result in an increased lifetime cancer risk to the hypothetical maximum exposed individual (MEI) exceeding  $1 \cdot 10^{-5}$  (1 in 100,000):
    - 1) During the trial burn (for new facilities or an interim status facility applying for a permit) or compliance test (for interim status facilities), determine emission rates of the tetra-octa congeners of chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (CDDs/CDFs) using Method 0023A, ~~"Determination of Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans (PCDFs) from Stationary Sources"~~, in Section 726. Appendix I ~~"~~ "Sampling Method for Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans Emissions from Stationary Sources," USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111;

- 2) Estimate the 2,3,7,8-TCDD toxicity equivalence of the tetra-octa CDDs/CDFs congeners using "Procedures for Estimating the Toxicity Equivalence of Chlorinated Dibenzop-Dioxin and Dibenzofuran Congeners" in Section 726. Appendix I. Multiply the emission rates of CDD/CDF congeners with a toxicity equivalence greater than zero (see the procedure) by the calculated toxicity equivalence factor to estimate the equivalent emission rate of 2,3,7,8-TCDD;
  - 3) Conduct dispersion modeling using methods recommended in 40 CFR 51, Appendix W, as incorporated by reference at 35 Ill. Adm. Code 720.111 ("Guideline on Air Quality Models (Revised)" (1986) and its supplements), the "Hazardous Waste Combustion Air Quality Screening Procedure", provided in Appendix I, or in "Screening Procedures for Estimating Air Quality Impact of Stationary Sources, Revised" (incorporated by reference in 35 Ill. Adm. Code 720.111) to predict the maximum annual average off-site ground level concentration of 2,3,7,8-TCDD equivalents determined under subsection (e)-(2) above. The maximum annual average on-site concentration must be used when a person resides on-site; and
  - 4) The ratio of the predicted maximum annual average ground level concentration of 2,3,7,8-TCDD equivalents to the risk-specific dose (RSD) for 2,3,7,8-TCDD provided in Section 726. Appendix E ( $2.2 \cdot 10^{-7}$ ) must not exceed 1.0.
- f) Monitoring CO and HC in the by-pass duct of a cement kiln. Cement kilns may comply with the CO and HC limits provided by subsections (b), (c) and (d) above by monitoring in the by-pass duct provided that:
- 1) Hazardous waste is fired only into the kiln and not at any location downstream from the kiln exit relative to the direction of gas flow; and
  - 2) The by-pass duct diverts a minimum of 10% of kiln off-gas into the duct.
- g) Use of emissions test data to demonstrate compliance and establish operating limits. Compliance with the requirements of this Section must be demonstrated simultaneously by emissions testing or during separate runs under identical operating conditions. Further, data to demonstrate compliance with the CO and HC

limits of this Section or to establish alternative CO or HC limits under this Section must be obtained during the time that DRE testing, and where applicable, CDD/CDF testing under subsection (e) above and comprehensive organic emissions testing under subsection (f) above is conducted.

- h) Enforcement. For the purposes of permit enforcement, compliance with the operating requirements specified in the permit (under Section 726.202) will be regarded as compliance with this Section. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the requirements of this Section is "information" justifying modification or revocation and re-issuance of a permit under 35 Ill. Adm. Code 703.270 et seq.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 726.206 Standards to Control Metals Emissions

- a) General. The owner or operator shall comply with the metals standards provided by subsections (b), (c), (d), (e) or (f) below for each metal listed in subsection (b) below that is present in the hazardous waste at detectable levels using analytical procedures specified in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111.
- b) Tier I feed rate screening limits. Feed rate screening limits for metals are specified in Section 726.Appendix A as a function of terrain-adjusted effective stack height (TESH) and terrain and land use in the vicinity of the facility. Criteria for facilities that are not eligible to comply with the screening limits are provided in subsection (b)(7) below.
- 1) Noncarcinogenic metals. The feed rates of the noncarcinogenic metals in all feed streams, including hazardous waste, fuels and industrial furnace feed stocks must not exceed the screening limits specified in Section 726.Appendix A.
- A) The feed rate screening limits for antimony, barium, mercury, thallium and silver are based on either:
- i) An hourly rolling average as defined in Sections 726.200(g) and 726.202(e)(6)-(A)(ii); or

- ii) An instantaneous limit not to be exceeded at any time.
- B) The feed rate screening limit for lead is based on one of the following:
- i) An hourly rolling average as defined in Sections 726.200(g) and 726.202(e)(6)-(A)(ii);
  - ii) An averaging period of 2 to 24 hours as defined in Section 726.202(e)(6)(B) with an instantaneous feed rate limit not to exceed 10 times the feed rate that would be allowed on an hourly rolling average basis; or
  - iii) An instantaneous limit not to be exceeded at any time.
- 2) Carcinogenic metals.
- A) The feed rates of carcinogenic metals in all feed streams, including hazardous waste, fuels and industrial furnace feed stocks must not exceed values derived from the screening limits specified in Section 726.Appendix A. The feed rate of each of these metals is limited to a level such that the sum of the ratios of the actual feed rate to the feed rate screening limit specified in Section 726.Appendix A must not exceed 1.0, as provided by the following equation:

$$\sum_{i=1}^n \frac{A_i}{F_i} \leq 1.0$$

where:

$\sum A_i/F_i$  means the sum of the values of  $A/F$  for each metal "i", from  $i = 1$  to  $n$ .

$n$  = number of carcinogenic metals

$A_i$  = the actual feed rate to the device for metal "i"

$F_i$  = the feed rate screening limit provided by Section 726.Appendix A for metal "i".

- B) The feed rate screening limits for the carcinogenic metals are based on either:
- i) An hourly rolling average; or
  - ii) An averaging period of 2 to 24 hours, as defined in Section 726.202(e)(6)(B), with an instantaneous feed rate limit not to exceed 10 times the feed rate that would be allowed on an hourly rolling average basis.

3) TESH (terrain adjusted effective stack height).

- A) The TESH is determined according to the following equation:

$$\text{TESH} = H + P - T$$

where:

H = Actual physical stack height (m)

P = Plume rise (in m) as determined from Section 726.Appendix F as a function of stack flow rate and stack gas exhaust temperature.

T = Terrain rise (in m) within five kilometers of the stack.

- B) The stack height (H) must not exceed good engineering practice stack height, as defined in Section 726.200(g).
- C) If the TESH calculated pursuant to subsection (b)(3)(A) above is not listed in Sections 726.Appendix A through 726.Appendix C, the values for the nearest lower TESH listed in the table must be used. If the TESH is four meters or less, a value based on four meters must be used.

- 4) Terrain type. The screening limits are a function of whether the facility is located in noncomplex or complex terrain. A device located where any part of the surrounding terrain within 5 kilometers of the stack equals or exceeds the

elevation of the physical stack height (H) is considered to be in complex terrain and the screening limits for complex terrain apply. Terrain measurements are to be made from U.S. Geological Survey 7.5-minute topographic maps of the area surrounding the facility.

- 5) Land use. The screening limits are a function of whether the facility is located in an area where the land use is urban or rural. To determine whether land use in the vicinity of the facility is urban or rural, procedures provided in Section 726.Appendix I or Section 726.Appendix J shall be used.
- 6) Multiple stacks. Owners and operators of facilities with more than one on-site stack from a BIF, incinerator or other thermal treatment unit subject to controls of metals emissions under a RCRA permit or interim status controls shall comply with the screening limits for all such units assuming all hazardous waste is fed into the device with the worst-case stack based on dispersion characteristics. The stack with the lowest value of K is the worst-case stack. K is determined from the following equation as applied to each stack:

$$K = H \times V \times T$$

Where:

K = a parameter accounting for relative influence of stack height and plume rise;

H = physical stack height (meters);

V = stack gas flow rate (m<sup>3</sup>/sec (cubic meters per second); and

T = exhaust temperature (degrees K).

- 7) Criteria for facilities not eligible for screening limits. If any criteria below are met, the Tier I (and Tier II) screening limits do not apply. Owners and operators of such facilities shall comply with either the Tier III standards provided by subsection (d) below or with the adjusted Tier I feed rate screening limits provided by subsection (e) below.

- A) The device is located in a narrow valley less than one kilometer wide;
  - B) The device has a stack taller than 20 meters and is located such that the terrain rises to the physical height within one kilometer of the facility;
  - C) The device has a stack taller than 20 meters and is located within five kilometers of a shoreline of a large body of water such as an ocean or large lake;
  - D) The physical stack height of any stack is less than 2.5 times the height of any building within five building heights or five projected building widths of the stack and the distance from the stack to the closest boundary is within five building heights or five projected building widths of the associated building; or
- 8) Implementation. The feed rate of metals in each feedstream must be monitored to ensure that the feed rate screening limits are not exceeded.
- c) Tier II emission rate screening limits. Emission rate screening limits are specified in Section 726. Appendix A as a function of TESH and terrain and land use in the vicinity of the facility. Criteria for facilities that are not eligible to comply with the screening limits are provided in subsection (b)(7) above.
- 1) Noncarcinogenic metals. The emission rates of noncarcinogenic metals must not exceed the screening limits specified in Section 726. Appendix A.
  - 2) Carcinogenic metals. The emission rates of carcinogenic metals must not exceed values derived from the screening limits specified in Section 726. Appendix A. The emission rate of each of these metals is limited to a level such that the sum of the ratios of the actual emission rate to the emission rate screening limit specified in Section 726. Appendix A must not exceed 1.0, as provided by the following equation:

$$\sum_{i=1}^n \frac{A_i}{E_i} \leq 1.0$$

where:

$\Sigma A_i/E_i$  means the sum of the values of A/E  
for each metal "i", from i = 1 to n.

n = number of carcinogenic metals

$A_i$  = the actual emission rate to the device  
for metal "i"

$E_i$  = the emission rate screening limit  
provided by Section 726. Appendix A for  
metal "i".

- 3) Implementation. The emission rate limits must be implemented by limiting feed rates of the individual metals to levels during the trial burn (for new facilities or an interim status facility applying for a permit) or the compliance test (for interim status facilities). The feed rate averaging periods are the same as provided by subsections (b)(1)(A), (b)(1)(B), and (b)(2)(B) above. The feed rate of metals in each feedstream must be monitored to ensure that the feed rate limits for the feedstreams specified under Sections 726.202 or 726.203 are not exceeded.
- 4) Definitions and limitations. The definitions and limitations provided by subsection (b) above and 726.200(g) for the following terms also apply to the Tier II emission rate screening limits provided by this subsection (c): TESH, good engineering practice stack height, terrain type, land use and criteria for facilities not eligible to use the screening limits.
- 5) Multiple stacks.
  - A) Owners and operators of facilities with more than one on-site stack from a BIF, incinerator or other thermal treatment unit subject to controls on metals emissions under a RCRA permit or interim status controls shall comply with the emissions screening limits for any such stacks assuming all hazardous waste is fed into the device with the worst-case stack based on dispersion characteristics.

- B) The worst-case stack is determined by procedures provided in subsection (b)(6) above.
- C) For each metal, the total emissions of the metal from those stacks must not exceed the screening limit for the worst-case stack.
- d) Tier III site-specific risk assessment. The requirements of this subsection apply to facilities complying with either the Tier III or Adjusted Tier I except where specified otherwise.
- 1) General. Conformance with the Tier III metals controls must be demonstrated by emissions testing to determine the emission rate for each metal. In addition, conformance with either Tier III or Adjusted Tier I metals controls must be demonstrated by air dispersion modeling to predict the maximum annual average off-site ground level concentration for each metal and a demonstration that acceptable ambient levels are not exceeded.
  - 2) Acceptable ambient levels. Sections 726.Appendix D and 726.Appendix E list the acceptable ambient levels for purposes of this Subpart. Reference air concentrations (RACs) are listed for the noncarcinogenic metals and  $1 \times 10^{-5}$  RSDs are listed for the carcinogenic metals. The RSD for a metal is the acceptable ambient level for that metal provided that only one of the four carcinogenic metals is emitted. If more than one carcinogenic metal is emitted, the acceptable ambient level for the carcinogenic metals is a fraction of the RSD as described in subsection (d)(3) below.
  - 3) Carcinogenic metals. For the carcinogenic metals the sum of the ratios of the predicted maximum annual average off-site ground level concentrations (except that on-site concentrations must be considered if a person resides on site) to the RSD for all carcinogenic metals emitted must not exceed 1.0 as determined by the following equation:

$$\sum_{i=1}^n \frac{P_i}{R_i} \leq 1.0$$

$$\text{SUM}(P_i/R_i) \leq 1.0$$

where:

$\sum P_i/R_i$  means the sum of the values of P/R for each metal "i", from i = 1 to n.

n = number of carcinogenic metals

$P_i$  = the predicted ambient concentration for metal i.

$R_i$  = the RSD for metal i.

- 4) Noncarcinogenic metals. For the noncarcinogenic metals, the predicted maximum annual average off-site ground level concentration for each metal must not exceed the RAC.
  - 5) Multiple stacks. Owners and operators of facilities with more than one on-site stack from a BIF, incinerator or other thermal treatment unit subject to controls on metals emissions under a RCRA permit or interim status controls shall conduct emissions testing (except that facilities complying with Adjusted Tier I controls need not conduct emissions testing) and dispersion modeling to demonstrate that the aggregate emissions from all such on-site stacks do not result in an exceedance of the acceptable ambient levels.
  - 6) Implementation. Under Tier III, the metals controls must be implemented by limiting feed rates of the individual metals to levels during the trial burn (for new facilities or an interim status facility applying for a permit) or the compliance test (for interim status facilities). The feed rate averaging periods are the same as provided by subsections (b)(1)(A), (b)(1)(B), and (b)(2)(B) above. The feed rate of metals in each feedstream must be monitored to ensure that the feed rate limits for the feedstreams specified under Sections 726.202 or 726.203 are not exceeded.
- e) Adjusted Tier I feed rate screening limits. The owner or operator may adjust the feed rate screening limits provided by Section 726.Appendix A to account for site-specific dispersion modeling. Under this approach, the adjusted feed rate screening limit for a metal is determined by back-calculating from the acceptable ambient levels provided by Sections 726.Appendix D and

726.Appendix E using dispersion modeling to determine the maximum allowable emission rate. This emission rate becomes the adjusted Tier I feed rate screening limit. The feed rate screening limits for carcinogenic metals are implemented as prescribed in subsection (b)-(2) above.

- f) Alternative implementation approaches.
  - 1) Pursuant to subsection (f)(2) below the Agency shall approve on a case-by-case basis approaches to implement the Tier II or Tier III metals emission limits provided by subsection (c) or (d) above alternative to monitoring the feed rate of metals in each feedstream.
  - 2) The emission limits provided by subsection (d) above must be determined as follows:
    - A) For each noncarcinogenic metal, by back-calculating from the RAC provided in Section 726.Appendix D to determine the allowable emission rate for each metal using the dilution factor for the maximum annual average ground level concentration predicted by dispersion modeling in conformance with subsection (h) below; and
    - B) For each carcinogenic metal by:
      - i) Back-calculating from the RSD provided in Section 726.Appendix E to determine the allowable emission rate for each metal if that metal were the only carcinogenic metal emitted using the dilution factor for the maximum annual average ground level concentration predicted by dispersion modeling in conformance with subsection (h) below; and
      - ii) If more than one carcinogenic metal is emitted, selecting an emission limit for each carcinogenic metal not to exceed the emission rate determined by subsection (f)(2)(B)(i) above, such that the sum for all carcinogenic metals of the ratios of the selected emission limit to the emission rate determined by that subsection does not exceed 1.0.
- g) Emission testing.

- 1) General. Emission testing for metals must be conducted using ~~the Multiple Metals Train as described in Section 726.Appendix I Method 0060,~~ "Determinations of Metals in Stack Emissions," USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111.
  - 2) Hexavalent chromium. Emissions of chromium are assumed to be hexavalent chromium unless the owner or operator conducts emissions testing to determine hexavalent chromium emissions using procedures prescribed in ~~Section 726.Appendix I Method 0061,~~ "Determination of Hexavalent Chromium Emissions from Stationary Sources," USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111.
- h) Dispersion modeling. Dispersion modeling required under this Section must be conducted according to methods recommended in 40 CFR 51, appendix W ("Guideline on Air Quality Models (Revised)" (1986) and its supplements), the "Hazardous Waste Combustion Air Quality Screening Procedure" described in Section 726.Appendix I, or in "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised" (incorporated by reference in 35 Ill. Adm. Code 720.111) to predict the maximum annual average off-site ground level concentration. However, on-site concentrations must be considered when a person resides on-site.
- i) Enforcement. For the purposes of permit enforcement, compliance with the operating requirements specified in the permit (under Section 726.202) will be regarded as compliance with this Section. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the requirements of this Section is "information" justifying modification or revocation and re-issuance of a permit under 35 Ill. Adm. Code 703.270 et seq.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 726.207 Standards to Control HCl and Chlorine Gas Emissions

- a) General. The owner or operator shall comply with the HCl and chlorine gas controls provided by subsections (b), (c) or (e), below.

## b) Screening limits.

- 1) Tier I feed rate screening limits. Feed rate screening limits are specified for total chlorine in Section 726. Appendix B as a function of TESH and terrain and land use in the vicinity of the facility. The feed rate of total chlorine and chloride, both organic and inorganic, in all feed streams, including hazardous waste, fuels and industrial furnace feed stocks must not exceed the levels specified.
- 2) Tier II emission rate screening limits. Emission rate screening limits for HCl and chlorine gas are specified in Section 726. Appendix C as a function of TESH and terrain and land use in the vicinity of the facility. The stack emission rates of HCl and chlorine gas must not exceed the levels specified.
- 3) Definitions and limitations. The definitions and limitations provided by Section 726.200(g) and 726.206(b) for the following terms also apply to the screening limits provided by this subsection: TESH, good engineering practice stack height, terrain type, land use and criteria for facilities not eligible to use the screening limits.
- 4) Multiple stacks. Owners and operators of facilities with more than one on-site stack from a BIF, incinerator or other thermal treatment unit subject to controls on HCl or chlorine gas emissions under a RCRA permit or interim status controls shall comply with the Tier I and Tier II screening limits for those stacks assuming all hazardous waste is fed into the device with the worst-case stack based on dispersion characteristics.
  - A) The worst-case stack is determined by procedures provided in Section 726.206(b)(6).
  - B) Under Tier I, the total feed rate of chlorine and chloride to all subject devices must not exceed the screening limit for the worst-case stack.
  - C) Under Tier II, the total emissions of HCl and chlorine gas from all subject stacks must not exceed the screening limit for the worst-case stack.

- c) Tier III site-specific risk assessments.
- 1) General. Conformance with the Tier III controls must be demonstrated by emissions testing to determine the emission rate for HCl and chlorine gas, air dispersion modeling to predict the maximum annual average off-site ground level concentration for each compound, and a demonstration that acceptable ambient levels are not exceeded.
  - 2) Acceptable ambient levels. Section 726.Appendix D lists the RACs for HCl (7 ug/cu m) and chlorine gas (0.4 ug/cu m).
  - 3) Multiple stacks. Owners and operators of facilities with more than one on-site stack from a BIF, incinerator or other thermal treatment unit subject to controls on HCl or chlorine gas emissions under a RCRA permit or interim status controls shall conduct emissions testing and dispersion modeling to demonstrate that the aggregate emissions from all such on-site stacks do not result in an exceedance of the acceptable ambient levels for HCl and chlorine gas.
- d) Averaging periods. The HCl and chlorine gas controls are implemented by limiting the feed rate of total chlorine and chloride in all feedstreams, including hazardous waste, fuels and industrial furnace feed stocks. Under Tier I, the feed rate of total chlorine and chloride is limited to the Tier I Screening Limits. Under Tier II and Tier III, the feed rate of total chlorine and chloride is limited to the feed rates during the trial burn (for new facilities or an interim status facility applying for a permit) or the compliance test (for interim status facilities). The feed rate limits are based on either:
- 1) An hourly rolling average as defined in Section 726.200(g) and 726.202(e)(6); or
  - 2) An instantaneous basis not to be exceeded at any time.
- e) Adjusted Tier I feed rate screening limits. The owner or operator may adjust the feed rate screening limit provided by Section 726.Appendix B to account for site-specific dispersion modeling. Under this approach, the adjusted feed rate screening limit is determined by back-calculating from the acceptable ambient level for chlorine gas provided by Section 726.Appendix D using

dispersion modeling to determine the maximum allowable emission rate. This emission rate becomes the adjusted Tier I feed rate screening limit.

- f) Emissions testing. Emissions testing for HCl and chlorine gas ( $\text{Cl}_2$ ) must be conducted using the procedures described in ~~Section 726. Appendix I ("eye")~~ Methods 0050 or 0051, USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111.
- g) Dispersion modeling. Dispersion modeling must be conducted according to the provisions of Section 726.206(h).
- h) Enforcement. For the purposes of permit enforcement, compliance with the operating requirements specified in the permit (under Section 726.202) will be regarded as compliance with this Section. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the requirements of this Section is "information" justifying modification or revocation and re-issuance of a permit under 35 Ill. Adm. Code 703.270 et seq.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART M: MILITARY MUNITIONS

##### Section 726.300 Applicability

- a) The regulations in this Subpart identify when military munitions become a solid waste, and, if these wastes are also hazardous under this Subpart M or 35 Ill. Adm. Code 721, the management standards that apply to these wastes.
- b) Unless otherwise specified in this Subpart M, all applicable requirements in 35 Ill. Adm. Code 702, 703, 705, 720 through 726, and 728 apply to waste military munitions.

(Source: Added at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

##### Section 726.301 Definitions

In addition to the definitions in 35 Ill. Adm. Code 720.110, the following definitions apply to this Subpart M:

"Active range" means a military range that is currently in service and is being regularly used for range activities.

"Chemical agents and munitions" are defined as in the Department of Defense Authorization Act of 1986, 50 U.S.C. 1521(j)(1) (1997), incorporated by reference in 35 Ill. Adm. Code 720.111.

"Director" is as defined in 35 Ill. Adm. Code 702.110.

"Explosives or munitions emergency response specialist" is as defined in 35 Ill. Adm. Code 720.110.

"Explosives or munitions emergency" is as defined in 35 Ill. Adm. Code 720.110.

"Explosives or munitions emergency response" is as defined in 35 Ill. Adm. Code 720.110.

"Inactive range" means a military range that is not currently being used but which is still under military control and considered by the military to be a potential range area and which has not been put to a new use that is incompatible with range activities.

"Military" means the United States (U.S.) Department of Defense (DOD), the Armed Services, Coast Guard, National Guard, Department of Energy (DOE) or other parties under contract or acting as an agent for the foregoing who handle military munitions.

"Military munitions" is as defined in 35 Ill. Adm. Code 720.110.

"Military range" means designated land and water areas that are set aside, managed, and used to conduct research on, develop, test, and evaluate military munitions and explosives, other ordnance, or weapon systems or which are set aside, managed, and used to train military personnel in their use and handling. Ranges include firing lines and positions, maneuver areas, firing lanes, test pads, detonation pads, impact areas, and buffer zones with restricted access and exclusionary areas.

"Unexploded ordnance" or "UXO" means military munitions that have been primed, fused, armed, or otherwise prepared for action and which have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installation,

personnel, or material and remain unexploded either by malfunction, design, or any other cause.

(Source: Added at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 726.302 Definition of Solid Waste

a) A military munition is not a solid waste when any of the following situations describes the munition:

1) It is used for its intended purpose, including any of the following uses:

A) Use in training military personnel or explosives and munitions emergency response specialists (including training in proper destruction of unused propellant or other munitions);

B) Use in research, development, testing, and evaluation of military munitions, weapons, or weapon systems; or

C) Recovery, collection, and on-range destruction of unexploded ordnance and munitions fragments during range clearance activities at active or inactive ranges. However, "use for intended purpose" does not include the on-range disposal or burial of unexploded ordnance and contaminants when the burial is not a result of product use.

2) It is an unused munition, or component thereof, is being repaired, reused, recycled, reclaimed, disassembled, reconfigured, or otherwise subjected to materials recovery activities, unless such activities involve use constituting disposal, as defined in 35 Ill. Adm. Code 721.102(c)(1), or it is burned for energy recovery, as defined in 35 Ill. Adm. Code 721.102(c)(2).

b) An unused military munition is a solid waste when any of the following occurs:

1) The munition is abandoned by being disposed of, burned, detonated (except during intended use as specified in subsection (a) of this Section), incinerated, or treated prior to disposal;

2) The munition is removed from storage in a military magazine or other storage area for the purpose of

being disposed of, burned, or incinerated, or treated prior to disposal;

- 3) The munition is deteriorated or damaged (e.g., the integrity of the munition is compromised by cracks, leaks, or other damage) to the point that it cannot be put into serviceable condition, and cannot reasonably be recycled or used for other purposes; or
  - 4) The munition has been declared a solid waste by an authorized military official.
- c) A used or fired military munition is a solid waste when either of the following activities occurs with regard to the munition:
- 1) The munition is transported off-range or from the site of use (where the site of use is not a range) for the purposes of storage, reclamation, treatment, disposal, or treatment prior to disposal; or
  - 2) The munition is recovered, collected, and then disposed of by burial or landfilling either on or off a range.
- d) For purposes of RCRA section 1004(27) (42 U.S.C. § 6903(27) (1996)), a used or fired military munition is a solid waste, and, therefore, is potentially subject to RCRA corrective action authorities under sections 3004(u) and (v) (42 U.S.C. § 6924(u) & (v) (1996)), and 3008(h) (42 U.S.C. § 6928(h) (1996)) or to imminent and substantial endangerment authorities under section 7003 if the munition lands off-range and is not promptly rendered safe or retrieved. Any imminent and substantial threats associated with any remaining material must be addressed. If remedial action is infeasible, the operator of the range shall maintain a record of the event for as long as any threat remains. The record shall include the type of munition and its location (to the extent the location is known).

(Source: Added at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 726.303 Standards Applicable to the Transportation of Solid Waste Military Munitions

- a) Criteria for hazardous waste regulation of waste non-chemical military munitions in transportation.

- 1) Waste military munitions that are being transported and which exhibit a hazardous waste characteristic or which are listed as hazardous waste under 40 CFR part 261 are subject to regulation under 35 Ill. Adm. Code 702, 703, 705, 720 through 726, and 728, unless the munitions meet all the following conditions:
  - A) The waste military munitions are not chemical agents or chemical munitions;
  - B) The waste military munitions are transported in accordance with the Department of Defense shipping controls applicable to the transport of military munitions;
  - C) The waste military munitions are transported from a military-owned or operated installation to a military-owned or operated treatment, storage, or disposal facility; and
  - D) The transporter of the waste shall provide oral notice to the Agency within 24 hours from the time when either the transporter becomes aware of any loss or theft of the waste military munitions or when any failure to meet a condition of subsection (a)(1) of this Section occurs that may endanger human health or the environment. In addition, a written submission describing the circumstances shall be provided within five days from the time when the transporter becomes aware of any loss or theft of the waste military munitions or when any failure to meet a condition of subsection (a)(1) of this Section occurs.
- 2) If any waste military munitions shipped under subsection (a)(1) of this Section are not received by the receiving facility within 45 days of the day the waste was shipped, the owner or operator of the receiving facility shall report this non-receipt to the Agency within five days.
- 3) The conditional exemption from regulation as hazardous waste in subsection (a)(1) of this Section shall apply only to the transportation of non-chemical waste military munitions. It does not affect the regulatory status of waste military munitions as hazardous wastes with regard to storage, treatment, or disposal.

- 4) The conditional exemption in subsection (a)(1) of this Section applies only so long as all of the conditions in subsection (a)(1) of this Section are met.
- b) Reinstatement of exemption. If any waste military munition loses its exemption under subsection (a)(1) of this Section, the transporter may file an application for reinstatement of the exemption from hazardous waste transportation regulation with respect to such munition as soon as the munition is returned to compliance with the conditions of subsection (a)(1) of this Section. If the Agency finds that reinstatement of the exemption is appropriate based on factors such as the transporter's provision of a satisfactory explanation of the circumstances of the violation, or a demonstration that the violations are not likely to recur, the Agency may reinstate the exemption under subsection (a)(1) of this Section. If the Agency does not take action on the reinstatement application within 60 days after receipt of the application, then reinstatement shall be deemed granted, retroactive to the date of the application. However, the Agency may terminate a conditional exemption reinstated by default in the preceding sentence if the Agency finds that reinstatement is inappropriate based on factors such as the transporter's failure to provide a satisfactory explanation of the circumstances of the violation, or failure to demonstrate that the violations are not likely to recur. In reinstating the exemption under subsection (a)(1) of this Section, the Agency may specify additional conditions as are necessary to ensure and document proper transportation to protect human health and the environment.
- c) Amendments to DOD shipping controls. The Department of Defense shipping controls applicable to the transport of military munitions referenced in subsection (a)(1)-(ii) of this Section are Government Bill of Lading (GBL) (GSA Standard Form 1109), Requisition Tracking Form (DD Form 1348), the Signature and Talley Record (DD Form 1907), Special Instructions for Motor Vehicle Drivers (DD Form 836), and the Motor Vehicle Inspection Report (DD Form 626) in effect on November 8, 1995, incorporated by reference in 35 Ill. Adm. Code 720.111.
- BOARD NOTE: 40 CFR 266.203(c), as added at 62 Fed. Reg. 6655 (Feb. 12, 1997), further provides as follows: "Any amendments to the Department of Defense shipping controls shall become effective for purposes of paragraph (a)(1) of this section on the date the Department of Defense publishes notice in the Federal

Register that the shipping controls referenced in paragraph (a)(1)(ii) of this section have been amended." Section 5-75 of the Administrative Procedure Act [5 ILCS 100/5-75] prohibits the incorporation of later amendments and editions by reference. For this reason, interested members of the regulated community will need to notify the Board of any amendments of these references before those amendments can become effective under Illinois law.

(Source: Added at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 726.304 Standards Applicable to Emergency Responses

Explosives and munitions emergencies involving military munitions or explosives are subject to 35 Ill. Adm. Code 722.110(i), 723.110(e), 724.101(g)(8), 725.101(c)(11), and 703.121(c)(3), or alternatively to 35 Ill. Adm. Code 703.221.

(Source: Added at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 726.305 Standards Applicable to the Storage of Solid Waste Military Munitions

a) Criteria for hazardous waste regulation of waste non-chemical military munitions in storage.

1) Waste military munitions in storage that exhibit a hazardous waste characteristic or are listed as hazardous waste under 35 Ill. Adm. Code 721, are listed or identified as a hazardous waste (and thus are subject to regulation under 35 Ill. Adm. Code 702, 703, 705, 720 through 726, 728, 733, and 739), unless all the following conditions are met:

A) The waste military munitions are not chemical agents or chemical munitions;

B) The waste military munitions must be subject to the jurisdiction of the Department of Defense Explosives Safety Board (DDESB);

C) The waste military munitions must be stored in accordance with the DDESB storage standards applicable to waste military munitions;

D) Within within 90 days of when a storage unit is first used to store waste military munitions, the owner or operator shall notify

the Agency of the location of any waste storage unit used to store waste military munitions for which the conditional exemption in subsection (a)(1) of this Section is claimed;

- E) The owner or operator shall provide oral notice to the Agency within 24 hours from the time the owner or operator becomes aware of any loss or theft of the waste military munitions, or any failure to meet a condition of subsection (a)(1) of this Section that may endanger health or the environment. In addition, a written submission describing the circumstances shall be provided within five days from the time the owner or operator becomes aware of any loss or theft of the waste military munitions or any failure to meet a condition of subsection (a)(1) of this Section;
- F) The owner or operator shall inventory the waste military munitions at least annually, shall inspect the waste military munitions at least quarterly for compliance with the conditions of subsection (a)(1) of this Section, and shall maintain records of the findings of these inventories and inspections for at least three years; and
- G) Access to the stored waste military munitions must be limited to appropriately trained and authorized personnel.
- 2) The conditional exemption in subsection (a)(1) of this Section from regulation as hazardous waste shall apply only to the storage of non-chemical waste military munitions. It does not affect the regulatory status of waste military munitions as hazardous wastes with regard to transportation, treatment or disposal.
- 3) The conditional exemption in subsection (a)(1) of this Section applies only so long as all of the conditions in subsection (a)(1) of this Section are met.
- b) Notice of termination of waste storage. The owner or operator shall notify the Agency when a storage unit identified in subsection (a)(1)(D) of this Section will no longer be used to store waste military munitions.

c) Reinstatement of conditional exemption. If any waste military munition loses its conditional exemption under subsection (a)(1) of this Section, an application may be filed with the Agency for reinstatement of the conditional exemption from hazardous waste storage regulation with respect to such munition as soon as the munition is returned to compliance with the conditions of subsection (a)(1) of this Section. If the Agency finds that reinstatement of the conditional exemption is appropriate based on factors such as the owner's or operator's provision of a satisfactory explanation of the circumstances of the violation, or a demonstration that the violations are not likely to recur, the Agency may reinstate the conditional exemption under subsection (a)(1) of this Section. If the Agency does not take action on the reinstatement application within 60 days after receipt of the application, then reinstatement shall be deemed granted, retroactive to the date of the application. However, the Agency may terminate a conditional exemption reinstated by default in the preceding sentence if he/she finds that reinstatement is inappropriate based on factors such as the owner's or operator's failure to provide a satisfactory explanation of the circumstances of the violation, or failure to demonstrate that the violations are not likely to recur. In reinstating the conditional exemption under subsection (a)(1) of this Section, the Agency may specify additional conditions as are necessary to ensure and document proper storage to protect human health and the environment.

d) Waste chemical munitions.

1) Waste military munitions that are chemical agents or chemical munitions and that exhibit a hazardous waste characteristic or are listed as hazardous waste under 35 Ill. Adm. Code 721, are listed or identified as a hazardous waste and shall be subject to the applicable regulatory requirements of RCRA subtitle C.

2) Waste military munitions that are chemical agents or chemical munitions and that exhibit a hazardous waste characteristic or are listed as hazardous waste under 35 Ill. Adm. Code 721, are not subject to the storage prohibition in RCRA section 3004(j), codified at 35 Ill. Adm. Code 728.150.

e) Amendments to DDESB storage standards. The DDESB storage standards applicable to waste military munitions, referenced in subsection (a)(1)(C) of this Section, are DOD 6055.9-STD ("DOD Ammunition and

Explosive Safety Standards"), in effect on November 8, 1995, incorporated by reference in 35 Ill. Adm. Code 720.111.

BOARD NOTE: 40 CFR 266.205(e), as added at 62 Fed. Reg. 6656 (Feb. 12, 1997), further provides as follows: "Any amendments to the DDESB storage standards shall become effective for purposes of paragraph (a)(1) of this section on the date the Department of Defense publishes notice in the Federal Register that the DDESB standards referenced in paragraph (a)(1) of this section have been amended." Section 5-75 of the Administrative Procedure Act [5 ILCS 100/5-75] prohibits the incorporation of later amendments and editions by reference. For this reason, interested members of the regulated community will need to notify the Board of any amendments of these references before those amendments can become effective under Illinois law.

(Source: Added at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 726.306 Standards Applicable to the Treatment and Disposal of Waste Military

The treatment and disposal of hazardous waste military munitions are subject to the applicable permitting, procedural, and technical standards in 35 Ill. Adm. Code 702, 703, 705, 720 through 726, and 728.

(Source: Added at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 726.Appendix I Methods Manual for Compliance with BIF Regulations

See "Methods Manual for Compliance with BIF Regulations". This document is available from two sources. It is available through NTIS, incorporated by reference in 35 Ill. Adm. Code 720.111. It is also available as 40 CFR 266, Appendix IX (1997), ~~adopted at 56 Fed. Reg. 32688, July 17, 1991 and amended at 56 Fed. Reg. 42511, August 27, 1991, 57 Fed. Reg. 38566, August 25, 1992, and 57 Fed. Reg. 45001, September 30, 1992, which is incorporated by reference~~ in 35 Ill. Adm. Code 720.111. ~~This incorporation includes no future editions or amendments.~~

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

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

PART 728  
 LAND DISPOSAL RESTRICTIONS

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728.102	Definitions
728.103	Dilution Prohibited as a Substitute for Treatment
728.104	Treatment Surface Impoundment Exemption
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- 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: End-of-pipe CWA, CWA-Equivalent, and Class I Nonhazardous Waste Injection Well Treatment Standards; Spent Aluminum Potliners; and Carbamate Wastes

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- 728.140 Applicability of Treatment Standards
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- 728.144 Adjustment of Treatment Standard
- 728.145 Treatment Standards for Hazardous Debris
- 728.146 Alternative Treatment Standards Based on HTMR
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SUBPART E: PROHIBITIONS ON STORAGE

Section

- 728.150 Prohibitions on Storage of Restricted Wastes
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- 728.Table C Technology Codes and Description of Technology-Based Standards
- 728.Table D Technology-Based Standards by RCRA Waste Code
- 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 HMTR
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728.Table I	<u>Generator Paperwork Requirements</u>
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AUTHORITY: Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/22.4 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; 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, 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. \_\_\_\_\_, effective \_\_\_\_\_.

#### 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) Where persons have been granted an extension to the effective date of a prohibition under Subpart C or pursuant to Section 728.105, with respect to those wastes covered by the extension;

- 2) Where persons have been granted an exemption from a prohibition pursuant to a petition under 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 waste:
    - A) Is disposed into a nonhazardous or hazardous waste injection well, as defined in 35 Ill. Adm. Code 704.106(a); and
    - B) Does not exhibit any prohibited characteristic of hazardous waste identified in 35 Ill. Adm. Code 721.Subpart C at the point of injection.
  - 4) A waste that is hazardous only because it exhibits a characteristic of hazardous waste and which 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) The waste is managed in a treatment system which subsequently discharges to waters of the U.S. pursuant to a permit issued under 35 Ill. Adm. Code 309; or
    - B) The waste is treated for purposes of the pretreatment requirements of 35 Ill. Adm. Code 307 and 310; or
    - C) 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
    - D) 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 Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (42 U.S.C. §§ 9601 et seq.).

- e) The following hazardous wastes are not subject to any provision of this Part:
- 1) Wastes generated by small quantity generators of less than 100 kg of non-acute hazardous waste or less than 1 kg of acute hazardous waste per month, as defined in 35 Ill. Adm. Code 721.105;
  - 2) Waste pesticides that a farmer disposes of pursuant to 35 Ill. Adm. Code 722.170;
  - 3) Wastes identified or listed as hazardous after November 8, 1984, for which USEPA has not promulgated a land disposal prohibition or treatment standard; or
  - 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 per cent of the total flow of wastewater into the facility's headworks on an annual basis, or with a combined annualized average concentration not exceeding one part per million (ppm) in the headworks of the facility's wastewater treatment or pretreatment facility.
    - A) ~~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 per cent of the total flow of wastewater into the facility's headworks on an annual basis, or with a combined annualized average concentration not exceeding one part per million (ppm) in the headworks of the facility's wastewater treatment or pretreatment facility; or~~

~~B) Decharacterized waste that is injected into Class I nonhazardous wells in which the decharacterized waste's combined volume is less than one per cent of the total flow at the wellhead on an annualized basis and no greater than 10,000 gallons per day, and in which any underlying hazardous constituents in the characteristic waste are present at the point of generation at levels less than 10 times the treatment standards found at Section 728.148.~~

5) Land disposal prohibitions for hazardous characteristic wastes do not apply to laboratory wastes displaying the characteristic of ignitability (D001), corrosivity (D002), or organic toxicity (D012 through D043) that are mixed with other plant wastewaters at facilities whose ultimate discharge is subject to regulation under the CWA (including wastewaters at facilities that have eliminated the discharge of wastewater), provided that the annualized flow of laboratory wastewater into the facility's headworks does not exceed one percent or that the laboratory wastes' combined annualized average concentration does not exceed one part per million in the facility's headworks.

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 ~~268.150-728.150~~ 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) Thermostats, as described in 35 Ill. Adm. Code 733.104 and
- 4) Mercury-containing lamps, as described in 35 Ill. Adm. Code 733.107.

BOARD NOTE: Subsection (f)(4) of this Section was added pursuant to Section 22.23a of the Act [415 ILCS 5/22.23a] (see P.A. 90-502, effective August 19, 1997).

- g) This Part is cumulative with the land disposal restrictions of 35 Ill. Adm. Code 729. The Environmental Protection Agency (Agency) shall not issue a wastestream authorization pursuant to 35 Ill. Adm. Code 709 or Sections 22.6 or 39(h) of the Environmental Protection Act [415 ILCS 5/22.6 or 39(h)] unless the waste meets the requirements of this Part as well as 35 Ill. Adm. Code 729.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 728.104 Treatment Surface Impoundment Exemption

- a) Wastes which are otherwise prohibited from land disposal under this Part may be treated in a surface impoundment or series of impoundments provided that:
  - 1) Treatment of such wastes occurs in the impoundments;
  - 2) The following conditions are met:
    - A) Sampling and testing. For wastes with treatment standards in 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 which do not meet the treatment standards promulgated under Subpart D; residues which do not meet the prohibition levels established under Subpart C or Section 728.139 (where no treatment standards have been established); residues which 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 which are not delisted under 35 Ill. Adm. Code 720.122. However, residues which are the subject of a valid certification under Section 728.108 made no later than a year after placement of the wastes in an impoundment are not required to be removed annually. 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 unless the residues are the subject of a valid certification under Section 728.108 which allows disposal in surface impoundments meeting the requirements of Section 728.108(a).
- D) Recordkeeping. ~~The procedures and schedule for the sampling of impoundment contents, the analysis of test data and the annual removal of residues which do not meet the treatment standards, or prohibition levels (where no treatment standards have been established), or which 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), must be specified in the facility's waste analysis plan as required under 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 35 Ill. Adm. Code 724.Subpart F or 725.Subpart F, unless:
- A) It is exempted pursuant to 35 Ill. Adm. Code 724.321(d) or (e), or to 35 Ill. Adm. Code 725.321(c) or (d); or
  - 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:
    - i) Has at least one liner, for which there is no evidence that such liner is leaking;
    - ii) Is located more than one-quarter mile from an underground source of drinking water; and
    - iii) Is in compliance with generally applicable groundwater monitoring requirements for facilities with permits; or,
  - C) Upon application by the owner or operator, the Board has, pursuant to 35 Ill. Adm. Code 106, granted an adjusted standard from the requirements of this Part. The justification for such an adjusted standard shall 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 **Section 728.104 subsection (a)(3) of this Section** have been met ~~and submits a copy of the waste analysis plan required under Section 728.104(a)-(2)~~. 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 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 728.107 Waste Analysis Testing, Tracking, and Recordkeeping Requirements for Generators, Treaters, and Disposal Facilities

- a) ~~Except as specified in Section 728.132, where a generator's waste is listed in 35 Ill. Adm. Code 721.Subpart D or if the waste exhibits one or more of the characteristics set out at 35 Ill. Adm. Code 721.Subpart C, the generator shall test its waste, or test an extract using the Toxicity Characteristic Leaching Procedure, Method 1311, in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA Publication SW-846, as incorporated by reference in 35 Ill. Adm. Code 720.111, or use knowledge of the waste to determine if the waste is restricted from land disposal under this Part. If the generator determines that its waste displays the characteristic of ignitability (D001) (and is not in the High TOC Ignitable Liquids Subcategory or is not treated by CMBST or RORGS of Section 728.Table C), or the waste displays the characteristic of corrosivity (D002), reactivity (D003), or organic toxicity (D012 through D043), and the waste is prohibited under Sections 728.137, Section 728.138, and 728.139, the generator shall determine what underlying hazardous constituents (as defined in Section 728.102), are reasonably expected to be present in the D001, D002, D003, or D012 through D043 waste.~~

- 1) ~~If a generator determines that it is managing a restricted waste under this Part and the waste does not meet the applicable treatment standards set forth in Subpart D of this Part or exceeds the applicable prohibition levels set forth in Section 728.132 or 728.139, the generator shall send a one-time written notice to each treatment or storage facility with the initial shipment of waste. No further notification is necessary until~~

~~such time that the waste or facility change, in which case a new notification must be sent and a copy placed in the generator's file. The notice must include the following information:~~

~~A) USEPA hazardous waste number;~~

~~B) The waste constituents that the treater will monitor, if monitoring will not include all regulated constituents, for wastes F001 through F005, F039, D001, D002, D003, and D012 through D043. The generator must also include whether the waste is a nonwastewater or wastewater (as defined in Section 728.102 (d) and (f)) and indicate the subcategory of the waste (such as "D003 reactive cyanide") if applicable;~~

~~C) The manifest number associated with the shipment of waste;~~

~~D) For hazardous debris, the contaminants subject to treatment, as provided by Section 728.145(b), and the following statement: "This hazardous debris is subject to the alternative treatment standards of 35 Ill. Adm. Code 728.145"; and~~

~~E) Waste analysis data, where available.~~

~~2) If a generator determines that it is managing a restricted waste under this Part and determines that the waste can be land disposed without further treatment, with the initial shipment of waste the generator shall submit a one-time written notice and a certification to each treatment, storage, or land disposal facility stating that the waste meets the applicable treatment standards set forth in Subpart D of this Part and setting forth the applicable prohibition levels set forth in Section 728.132 or RCRA Section 3004(d), referenced in Section 728.139. A generator of hazardous debris that is excluded from the definition of hazardous waste under 35 Ill. Adm. Code 721.103(e)(2), 35 Ill. Adm. Code 728.103(f)(2), or 35 Ill. Adm. Code 720.122 (i.e. debris that is delisted), however, is not subject to these notification and certification requirements. If the waste changes, the generator shall send a new notice and certification to the receiving facility, and place a copy in its files.~~

~~A) The notice must include the following information:~~

~~i) USEPA hazardous waste number;~~

~~ii) The waste constituents that the treater will monitor, if monitoring will not include all regulated constituents, for wastes F001 through F005, F039, D001, D002, D003, and D012 through D043. The generator must also include whether the waste is a wastewater or nonwastewater (as defined in Section 728.102 (d) and (f)) and indicate the subcategory of the waste (such as "D003 reactive cyanide"), if applicable;~~

~~iii) The manifest number associated with the shipment of waste; and~~

~~iv) Waste analysis data, where available.~~

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

~~I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 35 Ill. Adm. Code Subpart D of this Part and all applicable prohibitions set forth in 35 Ill. Adm. Code 728.132, 728.139, or Section 3004(d) of the Resource Conservation and Recovery Act. 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.~~

~~3) If a generator's waste is subject to an exemption from a prohibition on the type of land disposal method utilized for the waste (such as, but not limited to, a case by case extension under Section 728.105, an exemption under Section 728.106, an extension under Section 728.101(c)(3), or a nationwide capacity variance under 40 CFR 268.Subpart C (1996)), the generator shall submit a one-time written notice with the initial~~

~~shipment of the waste to each facility receiving the generator's waste stating that the waste is not prohibited from land disposal. If the waste changes, the generator shall send a new notice and certification to the receiving facility, and place a copy in its files. The notice must include the following information:~~

- ~~A) USEPA hazardous waste number;~~
  - ~~B) The waste constituents that the treater will monitor, if monitoring will not include all regulated constituents, for wastes F001 through F005, F039, D001, D002, D003, and D012 through D043. The generator must also include whether the waste is a nonwastewater or wastewater (as defined in Section 728.102 (d) and (f)) and indicate the subcategory of the waste (such as "D003 reactive cyanide") if applicable;~~
  - ~~C) The manifest number associated with the shipment of waste;~~
  - ~~D) Waste analysis data, where available;~~
  - ~~E) For hazardous debris, when using the alternative treatment technologies provided by Section 728.145:
 
    - ~~i) The contaminants subject to treatment, as provided by Section 728.145(b);~~
    - ~~ii) An indication that these contaminants are being treated to comply with Section 728.145;~~~~
  - ~~F) For hazardous debris when using the treatment standards for the contaminating waste(s) in Section 728.140: the requirements described in subsections (a)(3)(A) through (a)(3)(D) and (a)(3)(G) of this Section; and,~~
  - ~~G) The date on which the waste is subject to the prohibitions.~~
- ~~4) If a generator is managing a prohibited waste in tanks, containers, or containment buildings regulated under 35 Ill. Adm. Code 722.134 and is treating such waste in tanks, containers, or containment buildings to meet applicable treatment standards under Subpart D of this Part, the~~

~~generator shall develop and follow a written waste analysis plan that describes the procedures the generator will carry out to comply with the treatment standards. (A generator treating hazardous debris under the alternative treatment standards of Section 728. Table F, however, is 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 it must 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 filed with the Agency a minimum of 30 days prior to the treatment activity, with delivery verified.~~
  - ~~C) Wastes shipped off site pursuant to this subsection must comply with the notification requirements of Section 728.107(a)(2).~~
- 5) If a generator determines whether the waste is restricted based solely on the generator's knowledge of the waste, the generator shall retain all supporting data used to make this determination on site in the generator's files. If a generator determines whether the waste is restricted based on testing the waste or an extract developed using the test method described in Section 728. Appendix A, the generator shall retain all waste analysis data on site in its files.
- 6) If a generator determines, subsequent to the time of generation, that it is managing a restricted waste that is excluded from the definition of hazardous or solid waste or exempt from regulation as a RCRA hazardous waste under 35 Ill. Adm. Code 721.102 through 721.106, the generator shall place, in the facility's file, a one-time notice stating such generation, the subsequent exclusion from the definition of hazardous or solid waste or exemption from regulation as a RCRA hazardous waste, and the disposition of the waste.

- 7) ~~A generator shall retain on site a copy of all notices, certifications, demonstrations, waste analysis data, and other documentation produced pursuant to this Section for at least five years from the date that the waste that is the subject of such documentation was last sent to on site or off site treatment, storage, or disposal. The five year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity, or as requested by the Agency. The requirements of this subsection apply to solid wastes even when the hazardous characteristic is removed prior to disposal, when the waste is excluded from the definition of hazardous or solid waste under 35 Ill. Adm. Code 721.102 through 721.106, or when the waste is exempted from regulation as a RCRA hazardous waste subsequent to the point of generation.~~
- 8) ~~If a generator is managing a lab pack that contains wastes identified in Section 728.Appendix D and wishes to use the alternative treatment standard under Section 728.142(c), with each shipment of waste the generator shall submit a notice to the treatment facility in accordance with subsection (a)(1) of this Section, except that underlying hazardous constituents need not be determined. The generator shall also comply with the requirements in subsections (a)(5) and (a)(6) of this Section and shall submit the following certification, which must be signed by an authorized representative:~~
- ~~I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack does not contain any of the wastes identified in 35 Ill. Adm. Code 728.Appendix D. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.~~
- 9) ~~This subsection corresponds with 40 CFR 268.7(a)-(9), marked "reserved" by USEPA at 59 Fed. Reg. 48045 (Sep. 19, 1994). This statement maintains structural consistency with federal regulations.~~
- 10) ~~Small quantity generators with tolling agreements pursuant to 35 Ill. Adm. Code 722.120(e) shall comply with the applicable notification and certification requirements of subsection (a) of~~

~~this Section for the initial shipment of the waste subject to the agreement. Such generators shall retain on site a copy of the notification and certification, together with the tolling agreement, for at least three years after termination or expiration of the agreement. The three-year record retention period is automatically extended following notification pursuant to Section 31(d) of the Environmental Protection Act until either any subsequent enforcement action is resolved or until the Agency notifies the generator documents need not be retained.~~

a) Requirements for generators:

- 1) A generator of a hazardous waste shall 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 or Section 728.145. This determination can be made in either of two ways: testing the waste or using knowledge of the waste. Testing determines the total concentration of hazardous constituents, or the concentration of hazardous constituents in an extract of the waste obtained using test method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, depending on whether the treatment standard for the waste is expressed as a total concentration or concentration of hazardous constituent in the waste's extract. In addition, some hazardous wastes must be treated by particular treatment methods before they can be land disposed. These treatment standards are also found in Sections 728.140 and 728.Table T, and are described in detail in Section 728.Table C. These wastes do not need to be tested (however, if they are in a waste mixture, other wastes with concentration level treatment standards shall be tested). If a generator determines that it is managing a waste that displays a hazardous characteristic of ignitability, corrosivity, reactivity, or toxicity, the generator shall comply with the special requirements of Section 728.109 in addition to any applicable requirements in this Section.
- 2) If the waste does not meet the treatment standard: With the initial shipment of waste to

each treatment or storage facility, the generator shall send a one-time written notice to each treatment or storage facility receiving the waste, and place a copy in the file. The notice must include the information in column "728.107(a)(2)" of the Generator Paperwork Requirements Table in Section 728.Table I. 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 meets the treatment standard at the original point of generation:

A) With the initial shipment of waste to each treatment, storage, or disposal facility, the generator shall send a one-time written notice to each treatment, storage, or disposal facility receiving the waste, and place a copy in its own file. The notice must include the information indicated in column "728.107(a)(3)" of the Generator Paperwork Requirements Table in Section 728.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 35 Ill. Adm. Code 728.Subpart D. I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

B) If the waste changes, the generator shall send a new notice and certification to the receiving facility, and place a copy in its file. Generators of hazardous debris excluded from the definition of hazardous waste under 35 Ill. Adm. Code 721.103(f) are not subject to these requirements.

- 4) For reporting, tracking and recordkeeping when exceptions allow certain wastes that do not meet the treatment standards to be land disposed: There are certain exemptions from the requirement that hazardous wastes 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 728.Subpart C of this Part. If a generator's waste is so exempt, then with the initial shipment of waste, the generator shall send a one-time written notice to each land disposal facility receiving the waste. The notice must include the information indicated in column "728.107(a)(4)" of the Generator Paperwork Requirements Table in Section 728.Table I. If the waste changes, the generator shall 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 in tanks, containers, or containment buildings regulated under 35 Ill. Adm. Code 722.134 to meet applicable LDR treatment standards found at Section 728.140, the generator shall develop and follow a written waste analysis plan which describes the procedures it will carry out to comply with the treatment standards. (Generators treating hazardous debris under the alternative treatment standards of Section 728.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 pursuant to this subsection (a)(5) must comply with the

notification requirements of Section 728.107(a)(3).

- 6) If a generator determines that the waste 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 the test method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, and all waste analysis data must be retained on-site in the generator's files.
- 7) If a generator determines that it is managing a restricted waste that is excluded from the definition of hazardous or solid waste or 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), or which are CWA-equivalent), the generator shall 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 file.
- 8) A generator shall retain a copy of all notices, certifications, waste analysis data, and other documentation produced pursuant to 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 by the Agency. The requirements of this paragraph apply to solid wastes even when the hazardous characteristic is removed prior to disposal, or when the waste is excluded from the definition of hazardous or solid waste under 35 Ill. Adm. Code 721.102 through 721.106, or exempted from RCRA Subtitle C regulation, subsequent to the point of generation.

- 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 shall fulfill the following conditions:
- A) With the initial shipment of waste to a treatment facility, the generator shall submit a notice that provides the information in column "Section 728.107(a)(9)" in the Generator Paperwork Requirements Table of Section 728.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 35 Ill. Adm. Code 728.Appendix D 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 shall also comply with the requirements in subsections (a)(6) and (a)(7) of this Section.
- 10) Small quantity generators with tolling agreements pursuant to 35 Ill. Adm. Code 722.120(e) shall comply with the applicable notification and certification requirements of subsection (a) of

this Section for the initial shipment of the waste subject to the agreement. Such generators shall retain on-site a copy of the notification and certification, together with the tolling agreement, for at least three years after termination or expiration of the agreement. The three-year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Agency.

- b) Treatment facilities—The owner or operator of a treatment facility shall test ~~their-its~~ wastes according to the frequency specified in ~~their-its~~ waste analysis plans, 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) of this Section.
- 1) For wastes with treatment standards expressed as concentrations in the waste extract (~~Section 728.141~~TCLP), the owner or operator of the treatment facility shall test an extract of the treatment residues ~~or an extract of such residues developed using the test method 1311 (the Toxicity Characteristic Leaching Procedure, described in Section 728. Appendix A—“Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111), to~~ assure that the treatment residues or extract meet the applicable treatment standards.
  - ~~2) For wastes prohibited under Section 728.132 or 728.139 that are not subject to any treatment standards under Subpart D of this Part, the owner or operator of the treatment facility shall test the treatment residues according to the generator testing requirements specified in Section 728.132 to assure that the treatment residues comply with the applicable prohibitions.~~
  - 3) For wastes with treatment standards expressed as concentrations in the waste (~~Section 728.143~~), the owner or operator of the treatment facility shall test the treatment residues (not an extract of such residues) to assure that the treatment residues meet the applicable treatment standards.
  - 4) A one-time notice must be sent with the initial waste shipment of waste to each ~~the~~ land disposal

facility that includes the following information, except that debris excluded from the definition of the hazardous waste under 35 Ill. Adm. Code 721.103(e) (i.e., debris treated by an extraction or destruction technology provided by Section 728.102 Table F, and debris that is delisted) is subject to the notification and certification requirements of subsection (d) of this Section rather than these notification requirements. No further notification is necessary until such time that the waste or receiving facility change, in which case a new notice must be sent and a A copy of the notice must be placed in the treatment facility's file.

- A) ~~USEPA hazardous waste number;~~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 waste constituents that the treater will monitor, if monitoring will not include all regulated constituents, for wastes F001 through F005, F039, D001, D002, D003, and D012 through D043. The generator must also include whether the waste is a nonwastewater or wastewater (as defined in Section 728.102 (d) and (f)) and indicate the subcategory of the waste (such as "D003 reactive cyanide") if applicable;~~The one-time notice must include the requirements indicated in the following table:
- C) ~~The manifest number associated with the shipment of waste; and~~
- D) ~~Waste analysis data, where available.~~

Treatment Facility Paperwork Requirements  
Table

<u>Required information</u>	<u>Section 728.107( b)</u>
<u>1. <b>US</b> EPA Hazardous Waste and Manifest numbers</u>	<u>✓</u>
<u>2. The waste is subject to the LDRs. The constituents of concern for F001-F005, and F039, and underlying hazardous constituents (for wastes that</u>	<u>✓</u>

are not managed in a Clean Water Act (CWA) or CWA-equivalent facility), 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

3. The notice must include the applicable wastewater/nonwastewater category (see Section Section 728.102(d) and (f)) and subdivisions made within a waste code based on waste-specific criteria (such as D003 reactive cyanide) ✓
4. Waste analysis data (when available) ✓
5. A certification statement is needed (see applicable section for exact wording) ✓

- 54) The **owner or operator of a** treatment facility **shall** submit a certification signed by an authorized representative with each the initial shipment of waste or treatment residue of a restricted waste to the land disposal facility stating that the waste or treatment residue has been treated in compliance with the treatment standards specified in Subpart D of this Part and the applicable prohibitions set forth in Section 728.132 or 728.139. Debris excluded from the definition of hazardous waste under 35 Ill. Adm. Code 721.103(e) (i.e., debris treated by an extraction or destruction technology provided by Section 728.Table F, and debris that is delisted), however, is subject to the notification and certification requirements of subsection (d) of this Section rather than the certification requirements of this subsection. 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) ~~For wastes with treatment standards expressed as concentrations in the waste extract or in the waste (Sections 728.141 or 728.143), or for wastes prohibited under Section 728.132 or 728.139 that are not subject to any treatment standards under Subpart D of this Part, the certification must be signed by an authorized representative and must state the following:~~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.

~~I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly, so as to comply with the performance levels specified in 35 Ill. Adm. Code Subpart D of this Part and all applicable prohibitions set forth in 35 Ill. Adm. Code 728.132 or 728.139 or Section 3004(d) of the Resource Conservation and Recovery Act without impermissible dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.~~

- B) ~~For wastes with treatment standards expressed as technologies (Section 728.142), the certification must be signed by an authorized representative and must state the following:~~Debris excluded from the definition of hazardous waste under 35 Ill. Adm. Code

721.103(e) (i.e., debris treated by an extraction or destruction technology listed in Section 728. Table F and debris that the Agency has determined does not contain hazardous waste), however, is subject to the notification and certification requirements of subsection (d) of this Section rather than the certification requirements of this paragraph.

~~I certify under penalty of law that the waste has been treated in accordance with the requirements of 35 Ill. Adm. Code 728.142. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.~~

- C) For wastes with organic constituents having treatment standards expressed as concentrations levels in the waste pursuant to Section 728.143, if compliance with the treatment standards in ~~Subpart D of this Part~~ is based in part or in whole on the analytical detection limit alternative specified in ~~Section 728.143(e) 728.140(d)~~, the certification also must be signed by an authorized representative and must state the following:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification ~~and that,~~  
~~Based~~ on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by incineration in combustion units operated as specified in accordance with 35 Ill. Adm. Code 724. Subpart O or 35 Ill. Adm. Code 725. Subpart O 728. Table C, or by combustion in fuel substitution units operating in accordance with applicable technical requirements, and.

I have been unable to detect the nonwastewater organic constituents, despite having used best good faith efforts to analyze for such constituents. I am aware that there are

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

- ~~D) For characteristic wastes D001, D002, D003, and D012 through D043 that are subject to the treatment standards in Section 728.140 (other than those expressed as a required method of treatment), that are reasonably expected to contain underlying hazardous constituents (as defined in Section 728.102(i)), that 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 the following:~~

~~I certify under penalty of law that the waste has been treated in accordance with the requirements of 35 Ill. Adm. Code 728.140 to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet universal treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.~~

- ~~E) For characteristic wastes D001, D002, D003, and D012 through D043 that contain underlying hazardous constituents, as defined in Section 728.102(i), and which are treated on-site to remove the hazardous characteristic and to treat underlying hazardous constituents to levels set forth in the Sections 728.148 and 728.Table U Universal Treatment Standards, the certification must state the following:~~

~~I certify under penalty of law that the waste has been treated in accordance with the requirements of 35 Ill. Adm. Code 728.140 to remove the hazardous characteristic, and that underlying hazardous constituents, as defined in Section 728.102, have been treated on-site to meet the Sections 728.148 and 728.Table U Universal Treatment Standards. I am aware that there are significant penalties for submitting a~~

~~false certification, including the possibility of fine and imprisonment.~~

- 65) If the waste or treatment residue will be further managed at a different treatment or storage facility, the treatment, storage, or disposal facility sending the waste or treatment residue off-site must comply with the notice and certification requirements applicable to generators under this Section.
- 76) Where 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) is not required to notify the receiving facility pursuant to subsection (b)(4) of this Section. With each shipment of such wastes the owner or operator of the recycling facility shall submit a certification described in subsection (b)(5) of this Section and a notice that includes the information listed in subsection (b)(4) of this Section (except the manifest number) to the Agency. The recycling facility also shall keep records of the name and location of each entity receiving the hazardous waste-derived product.
- c) Except where the owner or operator is disposing of any waste that is a recyclable material used in a manner constituting disposal pursuant to 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 shall:
- 1) ~~Have Maintain in its files~~ copies of the notice and certifications specified in subsection (a) or (b) of this Section ~~and the certification specified in Section 728.108, if applicable.~~
  - 2) Test the waste, or an extract of the waste or treatment residue developed using ~~the test method described in Section 728. Appendix A or using any methods required by generators under Section 728.132~~ Test Method 1311 (the Toxicity Characteristic Leaching Procedure), described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111), to assure that the waste or treatment residue is in compliance with the

applicable treatment standards set forth in Subpart D of this Part ~~and all applicable prohibitions set forth in Sections 728.132 or 728.139~~. 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 725.113.

- 3) Where 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 shall 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) Where 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) of this Section 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(e) (i.e., debris treated by an extraction or destruction technology provided by Section 728.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(e)(1), the technology from Section 728.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 ~~721.2(d)(1)~~ 721.102(e)(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(e)(1), the owner or operator of the treatment facility shall document and certify compliance with the treatment standards of Section 728.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 the following: "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."

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 728.109            Special Rules for Characteristic Wastes

- a) The initial generator of a solid waste shall determine each USEPA hazardous waste number (waste code) applicable to the waste in order to determine the applicable treatment standards under Subpart D of this Part. For purposes of this Part, the waste must carry the waste code for any applicable listing under 35 Ill.

Adm. Code 721.Subpart D. In addition, the waste **must** carry one or more of the waste codes under 35 Ill. Adm. Code 721.Subpart C **where the waste exhibits a characteristic**, except **in the case** when the treatment standard for the ~~waste code listed waste in 35 Ill. Adm. Code 721.Subpart D~~ operates in lieu of the ~~treatment standard for the characteristic waste code under 35 Ill. Adm. Code 721.Subpart C~~, as specified in subsection (b) of this Section. If the generator determines that **its** waste displays a characteristic of hazardous waste (and the waste is not a ~~D004 through D011 waste, a High TOC D001 waste nonwastewaters treated by CMBST, RORGS, OR POLYM of Section 728.Table C, and is not treated by CMBST or RORGS, as described in Section 728.Table C~~), ~~the generator shall determine what underlying hazardous constituents (as defined in Section 728.102) are reasonably expected to be present above the universal treatment standards set forth in Sections 728.148 and 728.Table U, the generator shall 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 35 Ill. Adm. Code 721.Subpart D and exhibits a characteristic under 35 Ill. Adm. Code 721.Subpart C, the treatment standard for the waste code listed in 35 Ill. Adm. Code 721.Subpart D will operate in lieu of the standard for the waste code under 35 Ill. Adm. Code 721.Subpart C, provided that the treatment standard for the listed waste includes a treatment standard for the constituent that causes the waste to exhibit the characteristic. Otherwise, the waste must meet the treatment standards for all applicable listed and characteristic waste codes.
- c) In addition to any applicable standards determined from the initial point of generation, no prohibited waste that exhibits a characteristic under 35 Ill. Adm. Code 721.Subpart C shall be land disposed unless the waste complies with the treatment standards under Subpart D of this Part.
- d) A waste that exhibits a characteristic 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 files and sent to the Agency, except for those facilities described in subsection (f) below. 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 subtitle D facility receiving the waste changes. However, the generator or treater need only notify the Agency on an annual basis if such changes occur. Such notification and certification should be sent to the Agency by the end of the year, but no later than December 31.

- 1) The notification must include the following information:
  - A) ~~For a characteristic waste other than one managed on site in a wastewater treatment system subject to the federal Clean Water Act (CWA), a zero discharger engaged in CWA equivalent treatment, or a Class I nonhazardous waste injection well, t~~The name and address of the RCRA Subtitle D (municipal solid waste landfill) facility receiving the waste shipment; and
  - B) ~~For a waste that exhibits a characteristic of hazardous waste, a~~ description of the waste as initially generated, including the applicable USEPA hazardous waste numbers, ~~the~~ treatability group(s), 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)(5)(A). If treatment removes the characteristic but does not treat underlying hazardous constituents, then the certification found in Section 728.107(b)(5)(D) applies.
- 3) For a characteristic waste whose ultimate disposal will be into a Class I nonhazardous waste injection well, and for which compliance with the treatment standards set forth in Sections 728.148 and 728.Table U for underlying hazardous constituents is achieved through pollution prevention that meets the criteria set forth at 35 Ill. Adm. Code 738.101(d), the following information must also be included:

- A) A description of the pollution prevention mechanism and when it was implemented if already complete;
  - B) The mass of each underlying hazardous constituent before pollution prevention;
  - C) The mass of each underlying hazardous constituent that must be removed, adjusted to reflect variations in mass due to normal operating conditions; and
  - D) The mass reduction of each underlying hazardous constituent that is achieved.
- e) For a decharacterized waste managed on-site in a wastewater treatment system subject to the federal Clean Water Act (CWA) or zero-dischargers engaged in CWA-equivalent treatment, compliance with the treatment standards set forth in Sections 728.148 and 728.Table D must be monitored quarterly, unless the treatment is aggressive biological treatment, in which case compliance must be monitored annually. Monitoring results must be kept in on-site files for 5 years.
- f) For a decharacterized waste managed on-site in a wastewater treatment system subject to the federal Clean Water Act (CWA) for which all underlying hazardous constituents (as defined in Section 728.102) are addressed by a CWA permit, this compliance must be documented and this documentation must be kept in on-site files.
- g) For a characteristic waste whose ultimate disposal will be into a Class I nonhazardous waste injection well that qualifies for the de minimis exclusion described in Section 728.101, information supporting that qualification must be kept in on-site files.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART C: PROHIBITION ON LAND DISPOSAL

##### Section 728.130 Waste Specific Prohibitions -- Solvent-Wood Preserving Wastes

- ~~a) The spent solvent wastes specified in 35 Ill. Adm. Code 721.131 as U.S. EPA Hazardous Waste Numbers F001, F002, F003, F004, and F005 are prohibited under this Part~~

~~from land disposal (except in an injection well) unless one or more of the following conditions apply:~~

- ~~1) The generator of the solvent waste is a small quantity generator of 100 to 1000 kilograms of hazardous waste per month;~~
  - ~~2) The solvent waste is generated from any response action taken under CERCLA or from RCRA corrective action except where the waste is contaminated soil or debris;~~
  - ~~3) The initial generator's solvent waste is a solvent-water mixture, solvent-containing sludge or solid, or solvent-contaminated soil (non-CERCLA or non-RCRA corrective action) containing less than 1 percent total F001 through F005 solvent constituents listed in Table T; or~~
  - ~~4) The solvent waste is a residue from treating a waste described in subsection (a)(1), (a)(2), or (a)(3) above, or the solvent waste is a residue from treating a waste not described in subsection (a)(1), (a)(2), or (a)(3), provided such residue belongs to a different treatability group than the waste as initially generated and wastes belonging to such treatability group are described in subsection (a)(3).~~
- ~~b) The F001 through F005 solvent wastes listed in subsections (a)(1), (a)(2), (a)(3), or (a)(4) above are prohibited from land disposal.~~
- ~~c) The F001 through F005 solvent wastes that are contaminated soil and debris resulting from a CERCLA response or RCRA corrective action or the residue from treatment of these wastes are prohibited from land disposal.~~
- ~~d) The requirements of subsections (a), (b), and (c) above do not apply if:~~
- ~~1) The wastes meet the standards of 728.Subpart D; or~~
  - ~~2) An exemption (adjusted standard) was granted from a prohibition pursuant to a petition under Section 728.106 with respect to those wastes and units and the activity is covered by the petition; or~~
  - ~~3) Persons have been granted an extension to the effective date of a prohibition by U.S. EPA pursuant to Section 728.105 with respect to those~~

~~wastes and units and the activity is covered by the extension.~~

- 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) Effective May 12, 1999, 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) Until May 12, 1999, soil and debris contaminated with the wastes specified in 35 Ill. Adm. Code 721 as USEPA hazardous waste numbers F032, F034, F035; and radioactive waste mixed with USEPA hazardous waste numbers F032, F034, and F035 may be disposed in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in Section 728.105(h)(2).
- d) The requirements of subsections (a) and (b) of this Section do not apply if:
- 1) The wastes meet the applicable treatment standards specified in 728.Subpart D of this Part;
  - 2) Persons have 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) Persons have been granted an extension to the effective date of a prohibition pursuant to 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 Sections 728.140 and 728.Table T, the initial generator shall test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains

constituents in excess of the applicable universal treatment standard levels of Sections 728.148 and 728.149, Table U, the waste is prohibited from land disposal, and all requirements of Part 728 are applicable, except as otherwise specified.

(Source: Repealed and New Section Added at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 728.132 Waste Specific Prohibitions -- California List Wastes (Repealed)

- ~~a) The following hazardous wastes are prohibited from land disposal (except in injection wells):~~
- ~~1) Liquid hazardous wastes having a pH less than or equal to two (2.0);~~
  - ~~2) Liquid hazardous wastes containing PCBs at concentrations greater than or equal to 50 ppm;~~
  - ~~3) Liquid hazardous wastes that are primarily water and contain halogenated organic compounds (HOCs) in total concentration greater than or equal to 1000 mg/l and less than 10,000 mg/l HOCs.~~
- ~~d) The requirements of subsection (a) and (c) do not apply until:~~
- ~~1) November 8, 1989 where the wastes are contaminated soil or debris not resulting from a CERCLA response action or from RCRA corrective action, as defined in Section 728.102. Until July 8, 1989, the wastes may be disposed of in a landfill or surface impoundment only if such disposal is in compliance with the requirements in 40 CFR 268.5(h)(2), incorporated by reference in Section 728.105.~~
  - ~~2) November 8, 1990, where the wastes are contaminated soil or debris resulting from a CERCLA response action or RCRA corrective action. Until November 8, 1990, the wastes may be disposed in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in 40 CFR 268.5(h)(2), incorporated by reference in Section 728.105.~~
- ~~e) The following hazardous wastes are prohibited from land disposal (subject to any regulation that may be promulgated with respect to disposal in injection wells):~~

- 1) ~~Liquid hazardous wastes that contain HOCs in total concentration greater than or equal to 1000 mg/l and are not prohibited under subsection (a)(3); and~~
  - 2) ~~Nonliquid hazardous wastes containing HOCs in total concentration greater than or equal to 1000 mg/kg and which are not wastes described in subsection (d).~~
- f) ~~The wastes described in subsections (e)(1) and (e)(2) may be disposed of in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in 40 CFR 268.5(h)(2), incorporated by reference in Section 728.105.~~
- g) ~~The requirements of subsections (a) (d) and (e) do not apply if:~~
- 1) ~~Persons have been granted an adjusted standard from a prohibition pursuant to a petition under Section 728.106, with respect to those wastes and units covered by the petition (except for liquid hazardous wastes containing PCBs at concentrations greater than or equal to 500 ppm which are not eligible for exemptions); or,~~
  - 2) ~~Persons have 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; or~~
  - 3) ~~The wastes meet the applicable standards specified in Subpart D or, where treatment standards are not specified, the wastes are in compliance with the applicable prohibitions set forth in this Section or Section 728.139.~~
- h) ~~The prohibitions and effective dates specified in subsections (a)(3), (d) and (e) do not apply where the waste is subject to a Subpart C prohibition and effective date for a specified HOC (such as a hazardous waste chlorinated solvent, see e.g. Section 728.130(a)).~~
- i) ~~To determine whether or not a waste is a liquid under subsections (a) or (e) or under Section 728.139, the following test must be used:~~
- ~~Method 9095 (Paint Filter Liquids Test), as described in "Test Methods for Evaluating Solid~~

Wastes", incorporated by reference in 35 Ill. Adm. Code 720.111.

~~j) Except as otherwise provided in this subsection, the waste analysis and recordkeeping requirements of Section 728.107 are applicable to wastes prohibited under this Part or Section 728.139:~~

~~1) The initial generator of a liquid hazardous waste shall test the waste (not an extract or filtrate) in accordance with the procedures specified in 35 Ill. Adm. Code 721.122(a)(1), or use knowledge of the waste, to determine if the waste has a pH less than or equal to two (2.0). If the liquid waste has a pH less than or equal to two (2.0), it is restricted from land disposal and all requirements of this Part are applicable, except as otherwise specified in this Section.~~

~~2) The initial generator of either a liquid hazardous waste containing PCBs or a liquid or nonliquid hazardous waste containing HOCs shall test the waste (not an extract or filtrate), or use knowledge of the waste, to determine whether the concentration levels in the waste equal or exceed the prohibition levels specified in this Section. If the concentration of PCBs or HOCs in the waste is greater than or equal to the prohibition levels specified in this Section, the waste is restricted from land disposal and all requirements of this Part are applicable, except as otherwise specified in this Section.~~

(Source: Repealed at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 728.133 Waste Specific Prohibitions: -- First Third Wastes  
(Repealed)

~~a) The wastes specified in 35 Ill. Adm. Code 721.132 as U.S. EPA hazardous wastes numbers listed below are prohibited from land disposal (except in an injection well).~~

~~F006 (nonwastewater)~~

~~K001~~

~~K004 wastes specified in Sections 728.140 and 728.Table T~~

~~K008 wastes specified in Sections 728.140 and 728.Table T~~

~~K015~~

~~K016~~

~~K018~~  
~~K019~~  
~~K020~~  
~~K021 wastes specified in Section Sections 728.140~~  
~~and 728.Table T~~  
~~K022 (nonwastewater)~~  
~~K024~~  
~~K025 nonwastewaters specified in Sections 728.140~~  
~~and 728.Table T~~  
~~K030~~  
~~K036 (nonwastewater)~~  
~~K037~~  
~~K044~~  
~~K045 (nonexplosive)~~  
~~K046 (nonwastewater)~~  
~~K047~~  
~~K060 (nonwastewater)~~  
~~K061 (nonwastewaters containing less than 15%~~  
~~zinc)~~  
~~K062 (non CaSO<sub>4</sub>)~~  
~~K069 (nonwastewater)~~  
~~K086 (solvent washes),~~  
~~K087~~  
~~K099~~  
~~K100 nonwastewaters specified in Sections 728.140~~  
~~and 728.Table T~~  
~~K101 (wastewater)~~  
~~K101 (nonwastewater, low arsenic subcategory less~~  
~~than 1% total arsenic)~~  
~~K102 (wastewater)~~  
~~K102 (nonwastewater, low arsenic subcategory less~~  
~~than 1% total arsenic)~~  
~~K103~~  
~~K104~~

- ~~b) The waste specified in 35 Ill. Adm. Code 721.132 as~~  
~~U.S. EPA Hazardous Waste No. K071 is prohibited from~~  
~~land disposal.~~
- ~~c) The wastes specified in Section 728.110 having a~~  
~~treatment standard in 728.Subpart D based on~~  
~~incineration and which are contaminated soil and debris~~  
~~are prohibited from land disposal.~~
- ~~e) The requirements of subsection (a), (b), and (c) above~~  
~~do not apply if:~~
- ~~1) The waste meets the applicable standards specified~~  
~~in 728.Subpart D;~~
  - ~~2) An adjusted standard was granted pursuant to~~  
~~Section 728.106 with respect to those wastes and~~

~~units, and the activity is covered by the adjusted standard; or~~

~~3) Persons have been granted an extension to the effective date of a prohibition by U.S. EPA pursuant to Section 728.105 with respect to those wastes and units and the activity is covered by the extension.~~

~~f) This subsection corresponds with 40 CFR 268.33(f), a provision whose effectiveness has expired. This statement maintains structural consistency with U.S. EPA regulations.~~

~~g) To determine whether a hazardous waste listed in Section 728.110 exceeds the applicable treatment standards specified in Sections 728.131, 728.140, and 728.Table T, the initial generator shall test a representative sample of the waste extract or the entire waste depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable 728.Subpart D levels, the waste is prohibited from land disposal and all requirements of this Part are applicable except as otherwise specified.~~

(Source: Repealed at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 728.134 Waste Specific Prohibitions -- Second Third Wastes  
(Repealed)

~~a) The following wastes are prohibited from land disposal.~~

~~1) The wastes specified in 35 Ill. Adm. Code 721.131 as USEPA hazardous waste numbers:~~

~~F010~~

~~F024~~

~~2) The wastes specified in 35 Ill. Adm. Code 721.132 as USEPA hazardous waste numbers:~~

~~K005~~

~~K007~~

~~K009 (nonwastewaters)~~

~~K010~~

~~K023~~

~~K027~~

~~K028~~

~~K029 (nonwastewaters)~~  
~~K036 (wastewaters)~~  
K038  
K039  
K040  
K043  
K093  
K094  
~~K095 (nonwastewaters)~~  
~~K096 (nonwastewaters)~~  
K113  
K114  
K115  
K116

~~3) The wastes specified in 35 Ill. Adm. Code 721.133  
as USEPA hazardous waste numbers:~~

P013  
P021  
P029  
P030  
P039  
P040  
P041  
P043  
P044  
P062  
P063  
P071  
P074  
P085  
P089  
P094  
P097  
P098  
P099  
P104  
P106  
P109  
P111  
P121  
U028  
U058  
U069  
U087  
U088  
U102  
U107  
U221  
U223  
U235

~~b) The following wastes are prohibited from land disposal, except when they are injected into a UIC well pursuant to 35 Ill. Adm. Code 738.114(f) or 738.115(d) USEPA hazardous waste numbers:~~

~~K009 (wastewaters)  
K011 (nonwastewaters)  
K013 (nonwastewaters)  
K014 (nonwastewaters)~~

~~e) The following wastes are prohibited from land disposal: The wastes specified in 35 Ill. Adm. Code 721.131 as USEPA hazardous waste numbers:~~

~~F006 cyanide (nonwastewater)  
F008  
F009  
F011 (wastewaters)  
F012 (wastewaters)~~

~~1) The following waste is prohibited from land disposal except when it is injected into a UIC well pursuant to 35 Ill. Adm. Code 738.114(f): The waste specified in 35 Ill. Adm. Code 721.131 as USEPA hazardous waste number F007.~~

~~2) The following wastes are prohibited from land disposal pursuant to the treatment standards specified in Sections 728.141 or 728.143 applicable to those wastes:~~

~~F011 (nonwastewaters)  
F012 (nonwastewaters)~~

~~d) Effective June 8, 1991, the following wastes are prohibited from land disposal: The wastes specified in this Section having a treatment standard in Subpart D based on incineration, and which are contaminated soil and debris.~~

~~e) Until June 8, 1991, wastes included in subsections (c) and (d) may be disposed in a landfill or surface impoundment, regardless whether such unit is a new, replacement or lateral expansion unit, only if such unit is in compliance with the technical requirements specified in 40 CFR 268.5(h)(2), incorporated by reference in Section 728.105.~~

~~f) The requirements of subsections (a), (b), (c) and (d) do not apply if:~~

- 1) ~~The wastes meet the applicable standards specified in Subpart D; or~~
- 2) ~~Persons have 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.~~
- g) ~~The requirements of subsections (a), (b) and (c) do not apply if persons have 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.~~
- h) ~~Until May 8, 1990, the second third wastes specified in 40 CFR 268.11 (1989) for which treatment standards under Subpart D are not applicable, including California list wastes subject to the statutory prohibitions of Section 728.139 or codified prohibitions under Section 728.132, are prohibited from disposal in a landfill or surface impoundment unless the wastes are subject to a valid demonstration and certification pursuant to Section 728.108.~~
- i) ~~To determine whether a hazardous wastes exceeds the applicable treatment standards specified in Section 728.141 or 728.143, the initial generator shall test a representative sample of the waste extract, or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contain constituents in excess of the applicable Subpart D levels, the wastes is prohibited from land disposal and all the requirements of this Part are applicable, except as otherwise specified.~~

(Source: Repealed at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 728.135 Waste Specific Prohibitions--Third Third Wastes  
(Repealed)

- a) ~~The following wastes are prohibited from land disposal.~~
- 1) ~~The wastes specified in 35 Ill. Adm. Code 721.131 as U.S. EPA hazardous waste numbers:~~
- ~~F002 (1,1,2 trichloroethane)~~
  - ~~F005 (benzene)~~
  - ~~F005 (2 ethoxyethanol)~~
  - ~~F005 (2 nitropropane)~~

~~F006 (wastewaters),  
 F019  
 F025  
 F039 (wastewaters);~~

~~2) The wastes specified in 35 Ill. Adm. Code 721.132  
 as U.S. EPA hazardous waste numbers:~~

~~K002  
 K003  
 K004 (wastewaters)  
 K005 (wastewaters)  
 K006  
 K008 (wastewaters)  
 K011 (wastewaters)  
 K013 (wastewaters)  
 K014 (wastewaters)  
 K015 (nonwastewaters)  
 K017  
 K021 (wastewaters)  
 K022 (wastewaters)  
 K025 (wastewaters)  
 K026  
 K029 (wastewaters)  
 K031 (wastewaters)  
 K032  
 K033  
 K034  
 K035  
 K041  
 K042  
 K046 (wastewaters, reactive nonwastewaters)  
 K048 (wastewaters)  
 K049 (wastewaters)  
 K050 (wastewaters)  
 K051 (wastewaters)  
 K052 (wastewaters)  
 K060 (wastewaters)  
 K061 (wastewaters) and (high zinc subcategory  
 > 15% zinc)  
 K069 (wastewaters, calcium sulfate  
 nonwastewaters)  
 K073  
 K083  
 K084 (wastewaters)  
 K085  
 K095 (wastewaters)  
 K096 (wastewaters)  
 K097  
 K098  
 K100 (wastewaters)  
 K101 (wastewaters)~~

~~K102 (wastewaters)~~  
~~K105~~  
~~K106 (wastewaters)~~

~~3) The wastes specified in 35 Ill. Adm. Code  
721.133(e) as U.S. EPA hazardous waste numbers:~~

~~P001~~  
~~P002~~  
~~P003~~  
~~P004~~  
~~P005~~  
~~P006~~  
~~P007~~  
~~P008~~  
~~P009~~  
~~P010 (wastewaters)~~  
~~P011 (wastewaters)~~  
~~P012 (wastewaters)~~  
~~P014~~  
~~P015~~  
~~P016~~  
~~P017~~  
~~P018~~  
~~P020~~  
~~P022~~  
~~P023~~  
~~P024~~  
~~P026~~  
~~P027~~  
~~P028~~  
~~P031~~  
~~P033~~  
~~P034~~  
~~P036 (wastewaters)~~  
~~P037~~  
~~P038 (wastewaters)~~  
~~P042~~  
~~P045~~  
~~P046~~  
~~P047~~  
~~P048~~  
~~P049~~  
~~P050~~  
~~P051~~  
~~P054~~  
~~P056~~  
~~P057~~  
~~P058~~  
~~P059~~  
~~P060~~  
~~P064~~

~~P065 (wastewaters)~~  
P066  
P067  
P068  
P069  
P070  
P072  
P073  
P075  
P076  
P077  
P078  
P081  
P082  
P084  
P088  
~~P092 (wastewaters)~~  
P093  
P095  
P096  
P101  
P102  
P103  
P105  
P108  
P110  
P112  
P113  
P114  
P115  
P116  
P118  
P119  
P120  
P122  
P123

~~4) The wastes specified in 35 Ill. Adm. Code 721.133(f) as U.S. EPA hazardous waste numbers:~~

U001  
U002  
U003  
U004  
U005  
U006  
U007  
U008  
U009  
U010  
U011  
U012

U014  
U015  
U016  
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U130  
U131  
U132  
U133  
U134  
U135  
U136—(wastewaters)  
U137  
U138  
U140  
U141  
U142  
U143  
U144  
U145  
U146  
U147  
U148  
U149  
U150  
U151—(wastewaters)  
U152  
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U234  
U236  
U237  
U238  
U239  
U240  
U243  
U244  
U246  
U247  
U248  
U249

~~5) The following wastes identified as hazardous based on a characteristic alone:~~

~~D001~~  
~~D002~~  
~~D003~~  
~~D004 (wastewaters)~~  
~~D005~~  
~~D006~~  
~~D007~~  
~~D008 (except for lead materials stored before secondary smelting)~~  
~~D009 (wastewaters)~~  
~~D010~~  
~~D011~~  
~~D012~~  
~~D013~~  
~~D014~~  
~~D015~~  
~~D016~~  
~~D017~~

~~b) The following wastes are prohibited from land disposal. The wastes specified in 35 Ill. Adm. Code 721.132 as U.S. EPA hazardous waste numbers:~~

~~K048 (nonwastewaters)~~  
~~K049 (nonwastewaters)~~  
~~K050 (nonwastewaters)~~  
~~K051 (nonwastewaters)~~  
~~K052 (nonwastewaters)~~

~~e) The following wastes are prohibited from land disposal:~~

~~1) The wastes specified in 35 Ill. Adm. Code 721.131 as U.S. EPA hazardous waste numbers:~~

~~F039 (nonwastewaters)~~

~~2) The wastes specified in 35 Ill. Adm. Code 721.132 as U.S. EPA hazardous waste numbers:~~

~~K031 (nonwastewaters)~~  
~~K084 (nonwastewaters)~~  
~~K101 (nonwastewaters)~~  
~~K102 (nonwastewaters)~~  
~~K106 (nonwastewaters)~~

~~3) The wastes specified in 35 Ill. Adm. Code 721.133(e) as U.S. EPA hazardous waste numbers:~~

~~P010 (nonwastewaters)~~  
~~P011 (nonwastewaters)~~  
~~P012 (nonwastewaters)~~

~~P036 (nonwastewaters)  
 P038 (nonwastewaters)  
 P065 (nonwastewaters)  
 P087  
 P092 (nonwastewaters)~~

~~4) The wastes specified in 35 Ill. Adm. Code 721.133(f) as U.S. EPA hazardous waste numbers:~~

~~U136 (nonwastewaters)  
 U151 (nonwastewaters)~~

~~5) The following wastes identified as hazardous based on a characteristic alone:~~

~~D004 (nonwastewaters)  
 D009 (nonwastewaters);~~

~~6) RCRA hazardous wastes that contain naturally occurring radioactive materials.~~

~~d) Hazardous wastes listed in Sections 728.110, 728.111 or 728.112 that are mixed radioactive/hazardous wastes, and soil or debris contaminated with hazardous wastes listed in Sections 728.110, 728.111 or 728.112 that are mixed radioactive/hazardous wastes, are prohibited from land disposal, except as provided in subsection (e) below.~~

~~e) Subject to the applicable prohibitions of Sections 728.130, 728.131, and 728.132, contaminated soil and debris are prohibited from land disposal as follows:~~

~~1) Effective May 8, 1994, debris that is contaminated with wastes listed in Section 728.112 and debris that is contaminated with any characteristic waste for which treatment standards are established in Subpart D of this Part are prohibited from land disposal.~~

~~2) Effective May 8, 1994, mixed radioactive hazardous debris that is contaminated with hazardous wastes listed in Section 728.112 and mixed radioactive hazardous debris that is contaminated with any characteristic waste for which treatment standards are established in Subpart D of this Part are prohibited from land disposal.~~

~~3) Subsections (e)(1) and (e)(2) of this Section shall not apply where the generator has failed to~~

~~make good faith effort to locate treatment capacity suitable for its waste, has not utilized such capacity as it has found to be available, or has failed to file a report as required by Section 728.105(g) by August 12, 1993 or within 90 days after the waste is generated (whichever is later) describing the generator's efforts to locate treatment capacity. Where subsections (e)(1) and (e)(2) of this Section do not apply, all wastes described in those two subsections are prohibited from land disposal.~~

~~BOARD NOTE: This subsection is derived from 40 CFR 268.35(e)(3), as added at 58 Fed. Reg. 28510 (May 14, 1993). This was a HSWA derived amendment that went into effect as federal law in Illinois, effective May 8, 1993. The August 12, 1993 report was due on that date as a matter of federal law.~~

- ~~4) Hazardous soil having treatment standards in 728.Subpart D based on incineration, mercury retorting or vitrification, and soils contaminated with hazardous wastes listed in Sections 728.110, 728.111 and 728.112 that are mixed radioactive hazardous wastes, are prohibited from land disposal.~~
- ~~5) When used in subsections (e)(1) and (e)(2) of this Section, debris is defined as follows:~~
- ~~A) Debris as defined in Section 728.102(g); or~~
  - ~~B) Nonfriable inorganic solids that are incapable of passing through a 9.5 mm standard sieve that require cutting or crushing and grinding in mechanical sizing equipment prior to stabilization, limited to the following inorganic or metal materials:~~
    - ~~i) Metal slag (either dross or scoria);~~
    - ~~ii) Glassified slag;~~
    - ~~iii) Glass;~~
    - ~~iv) Concrete (excluding cementitious or pozzolanic stabilized hazardous wastes);~~
    - ~~v) Masonry and refractory bricks;~~
    - ~~vi) Metal cans, containers, drums, or tanks;~~

- vii) ~~Metal nuts, bolts, pipes, pumps, valves, appliances, or industrial equipment; or~~
- viii) ~~Scrap metal as defined in 35 Ill. Adm. Code 721.101(c)(6).~~
- f) ~~This subsection corresponds with 40 CFR 268.35(f), which pertains to an exemption from a land disposal prohibition up until a date long since expired. This statement maintains structural consistency with USEPA rules.~~
- g) ~~This subsection corresponds with 40 CFR 268.35(g), which pertains to an exemption from a land disposal prohibition up until a date long since expired. This statement maintains structural consistency with USEPA rules.~~
- h) ~~This subsection corresponds with 40 CFR 268.35(h), which pertains to landfill and surface impoundment disposal of the wastes listed in subsections (c), (d) and (e) above up until a date long since expired. This statement maintains structural consistency with USEPA rules.~~
- i) ~~The requirements of subsections (a) through (e), above, do not apply if:~~
  - 1) ~~The wastes meet the applicable standards specified in Subpart D of this Part;~~
  - 2) ~~Persons have 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 standards established pursuant to a petition granted under Section 728.144;~~
  - 4) ~~Persons have 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.~~
- j) ~~To determine whether a hazardous waste listed in Section 728.110, 728.111 or 728.112 exceeds the applicable treatment standards specified in Sections 728.141 and 728.143, the initial generator shall either test a representative sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste~~

~~extract or the waste, or use knowledge of the waste. If the waste contains constituents in excess of the applicable Subpart D of this Part levels, the waste is prohibited from land disposal, and all requirements of this Part are applicable, except as otherwise specified.~~

- ~~k) D008 lead materials stored before secondary smelting are prohibited from land disposal. On or before March 1, 1993, the owner or operator of each secondary lead smelting facility shall have submitted the following to the Agency: A binding contractual commitment to construct or otherwise provide capacity for storing such D008 wastes prior to smelting which complies with all applicable storage standards; documentation that the capacity to be provided will be sufficient to manage the entire quantity of such D008 wastes; and, a detailed schedule for providing such capacity. Failure by a facility to have submitted such documentation will render such D008 managed by that facility prohibited from land disposal. In addition, the owner or operator of each facility shall place in the facility record documentation of the manner and location in which such wastes will be managed pending completion of such capacity, demonstrating that such management capacity will be adequate and complies with all applicable requirements of 35 Ill. Adm. Code 720 through 728.~~

(Source: Repealed at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 728.136 Waste Specific Prohibitions -- Newly Listed Wastes  
(Repealed)

- ~~a) The wastes specified in 35 Ill. Adm. Code 721.132 as U.S. EPA hazardous waste numbers K107, K108, K109, K110, K111, K112, K117, K118, K123, K124, K125, K126, K131, K132, and K136; and the wastes specified in 35 Ill. Adm. Code 721.133(f) as U.S. EPA hazardous waste numbers U328, U353, and U359 are prohibited from land disposal.~~
- ~~b) The wastes specified in 35 Ill. Adm. Code 721.131 as U.S. EPA hazardous waste numbers F037 and F038 that are not generated from surface impoundment cleanouts or closures are prohibited from land disposal.~~
- ~~c) Effective June 30, 1994, the wastes specified in 35 Ill. Adm. Code 721.131 as U.S. EPA hazardous waste numbers F037 and F038 that are generated from surface impoundment cleanouts or closures are prohibited from land disposal.~~

- d) ~~Effective June 30, 1994, radioactive wastes that are mixed with hazardous wastes specified in 35 Ill. Adm. Code 721.131 as U.S. EPA hazardous waste numbers F037 and F038; the wastes specified in 35 Ill. Adm. Code 721.132 as U.S. EPA hazardous waste numbers K107, K108, K109, K110, K111, K112, K117, K118, K123, K124, K125, K126 K131, K132, and K136; or the wastes specified in 35 Ill. Adm. Code 721.133(f) as U.S. EPA hazardous waste numbers U328, U353, and U359 are prohibited from land disposal.~~
- e) ~~Effective June 30, 1994, debris contaminated with hazardous wastes specified in 35 Ill. Adm. Code 721.131 as U.S. EPA hazardous waste numbers F037 and F038; the wastes specified in 35 Ill. Adm. Code 721.132 as U.S. EPA hazardous waste numbers K107, K108, K109, K110, K111, K112, K117, K118, K123, K124, K125, K126 K131, K132, and K136; or the wastes specified in 35 Ill. Adm. Code 721.133(f) as U.S. EPA hazardous waste numbers U328, U353, and U359; and which is not contaminated with any other waste already subject to a prohibition are prohibited from land disposal.~~
- f) ~~This subsection corresponds with 40 CFR 268.36(f), which pertains to landfill disposal of the wastes listed in subsection (b) above up until a date long since expired. This statement maintains structural consistency with USEPA rules.~~
- g) ~~Between June 30, 1992 and June 30, 1994, the wastes included in subsections (d) and (e) of this Section may be disposed of in a landfill only if such unit is in compliance with the requirements specified in subsection 728.105(h)(2), and may be generated in and disposed of in a surface impoundment only if such unit is in compliance with either subsection 728.105(h)(2) or Section 728.114.~~
- h) ~~The requirements of subsections (a) through (e) above do not apply if:~~
- 1) ~~The wastes meet the applicable standards specified in 728.Subpart D;~~
  - 2) ~~Persons have 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 standards established pursuant to a petition granted under Section 728.144;~~
- ~~4) Persons have been granted an extension to the effective date of a prohibition pursuant to Section 728.105, with respect to the wastes covered by the extension.~~
- ~~i) To determine whether a hazardous waste identified in this Section exceeds the applicable treatment standards specified in Sections 728.141 and 728.143, the initial generator shall test a representative sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable levels in 728.Subpart D, the waste is prohibited from land disposal, and all requirements of Part 728 are applicable, except as otherwise specified.~~

(Source: Repealed at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART D: TREATMENT STANDARDS

##### Section 728.144 Adjustment of Treatment Standard

- a) Where the treatment standard is expressed as a concentration in a waste or waste extract and a waste cannot be treated to the specified level, or where the treatment technology is not appropriate to the waste, the generator or treatment facility may petition to the Board for an adjusted treatment standard. As justification, the petitioner shall demonstrate that, because the physical or chemical properties of the waste differ significantly from wastes analyzed in developing the treatment standard, the waste cannot be treated to specified levels or by the specified methods.

BOARD NOTE: 40 CFR 268.44 refers to these as "treatability variances". The Board has not used this term in its rules to avoid confusion with the Board variances under Title IX of the Environmental Protection Act. The equivalent Board procedures are an "adjusted treatment standard" pursuant to subsections (a) through (l) **of this Section**, or a "treatability exception" adopted pursuant to subsections (m) et seq. While the latter is adopted by "identical in substance"

rulemaking following a USEPA action, the former is an original Board action which will be the only mechanism following authorization to the State of this component of the RCRA program.

- b) Each petition must be submitted in accordance with the procedures in 35 Ill. Adm. Code 106.Subpart G.
- 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, the Board may request any additional information or samples which are necessary to evaluate the petition.
- e) The Board will give public notice and provide an opportunity for public comment, as provided in 35 Ill. Adm. Code 106. In conjunction with any updating of the RCRA regulations, the Board will maintain, in this Part, a listing of all adjusted treatment standards granted by the Board pursuant to this Section. A LISTING OF ALL ADJUSTED STANDARDS GRANTED PURSUANT TO THIS SECTION WILL BE PUBLISHED IN THE ILLINOIS REGISTER AND ENVIRONMENTAL REGISTER AT THE END OF EACH FISCAL YEAR. (Section 28.1(d)(3) of the Environmental Protection Act [415 ILCS 5/1].)
- f) A generator, treatment facility or disposal facility that is managing a waste covered by an adjusted treatment standard shall 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) Where the treatment standard is expressed as a concentration in a waste or waste extract and a waste generated under conditions specific to only one site cannot be treated to the specified level, or where treatment technology is not appropriate to the waste, the generator or treatment facility may petition the Board for a site-specific adjusted treatment standard. The petitioner shall demonstrate that, because the physical or chemical properties of the waste differs significantly from the waste analyzed in developing the treatment standard, the waste cannot be treated to specified levels or by the specified methods.
- i) Each petition for a site-specific adjusted treatment standard must include the information in 35 Ill. Adm. Code 720.120(b)(1) through (b)(4).
- j) After receiving a petition for a site-specific adjusted treatment standard, the Board may request any additional information or samples which the Board determines are necessary to evaluate the petition.
- k) A generator, treatment facility or disposal facility which is managing a waste covered by a site-specific adjusted treatment standard shall 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 adjusted treatment standard shall comply with all restrictions on land disposal under this Part once the effective date for the waste has been reached.
- m) If USEPA grants a treatability exception by regulatory action pursuant to 40 CFR 268.44 (1996) 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.

BOARD NOTE: The Board will adopt the treatability exception during a RCRA update Docket if a timely demonstration is made. Otherwise, the Board will assign the matter to a separate Docket.

- o) The facilities listed in Section 728. Table H are excluded from the treatment ~~standard-standards~~ under Sections 728.143(a) and 728. Table B, and are subject to

the constituent concentrations listed in Section 728. Table H.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

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

~~Note: The TCLP (Method 1311) is published in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", U.S. EPA Publication SW-846, as incorporated by reference in 35 Ill. Adm. Code 720.111.~~

(Source: Repealed at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

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

~~The Board incorporates by reference 40 CFR 268, Appendix II (1992), as amended at 57 Fed. Reg. 37281 (Aug. 18, 1992). This incorporation includes no future editions or amendments.~~

(Source: Repealed at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 728. Appendix C List of Halogenated Organic Compounds Repealed

VOLATILES

Bromodichloromethane  
 Bromomethane  
 Carbon tetrachloride  
 Chlorobenzene  
 2-Chloro-1,3-butadiene  
 Chlorodibromomethane  
 Chloroethane  
 2-Chloroethyl vinyl ether  
 Chloroform  
 Chloromethane  
 3-Chloropropene  
 1,2-Dibromo-3-chloropropane  
 1,2-Dibromoethane  
 Dibromomethane  
 trans-1,4-Dichloro-2-butene  
 Dichlorodifluoromethane  
 1,1-Dichloroethane  
 1,2-Dichloroethane  
 1,1-Dichloroethylene  
 trans-1,2-Dichloroethene

~~1,2-Dichloropropane~~  
~~trans-1,3-Dichloropropene~~  
~~cis-1,3-Dichloropropene~~  
~~Iodomethane~~  
~~Methylene chloride~~  
~~1,1,1,2-Tetrachloroethane~~  
~~1,1,2,2-Tetrachloroethane~~  
~~Tetrachloroethene~~  
~~Tribromomethane~~  
~~1,1,1-Trichloroethane~~  
~~1,1,2-Trichloroethane~~  
~~Trichloroethene~~  
~~Trichloromonofluoromethane~~  
~~1,2,3-Trichloropropane~~  
~~Vinyl chloride~~

## SEMIVOLATILES

~~Bis(2-chloroethoxy)ethane~~  
~~Bis(2-chloroethyl) ether~~  
~~Bis(2-chloroisopropyl) ether~~  
~~p-Chloroaniline~~  
~~Chlorobenzilate~~  
~~p-Chloro-m-cresol~~  
~~2-Chloronaphthalene~~  
~~2-Chlorophenol~~  
~~3-Chloropropionitrile~~  
~~m-Dichlorobenzene~~  
~~o-Dichlorobenzene~~  
~~p-Dichlorobenzene~~  
~~3,3'-Dichlorobenzidine~~  
~~2,4-Dichlorophenol~~  
~~2,6-Dichlorophenol~~  
~~Hexachlorobenzene~~  
~~Hexachlorobutadiene~~  
~~Hexachlorocyclopentadiene~~  
~~Hexachloroethane~~  
~~Hexachlorophene~~  
~~Hexachloropropene~~  
~~4,4'-Methylenebis(2-chloroaniline)~~  
~~Pentachlorobenzene~~  
~~Pentachloroethane~~  
~~Pentachloronitrobenzene~~  
~~Pentachlorophenol~~  
~~Pronamide~~  
~~1,2,4,5-Tetrachlorobenzene~~  
~~2,3,4,6-Tetrachlorophenol~~  
~~1,2,4-Trichlorobenzene~~  
~~2,4,5-Trichlorophenol~~  
~~2,4,6-Trichlorophenol~~  
~~Tris(2,3-dibromopropyl)phosphate~~

~~ORGANOCHLORINE PESTICIDES~~

~~Aldrin~~  
~~alpha-BHC~~  
~~beta-BHC~~  
~~delta-BHC~~  
~~gamma-BHC~~  
~~Chlordane~~  
~~DDD~~  
~~DDE~~  
~~DDT~~  
~~Dieldrin~~  
~~Endosulfan-I~~  
~~Endosulfane-II~~  
~~Endrin~~  
~~Endrin-aldehyde~~  
~~Heptachlor~~  
~~Heptachlor-epoxide~~  
~~Isodrin~~  
~~Kepone~~  
~~Methoxychlor~~  
~~Toxaphene~~

~~PHENOXYACETIC ACID HERBICIDES~~

~~2,4-Dichlorophenoxyacetic acid~~  
~~Silvex~~  
~~2,4,5-T~~

~~PCBs~~

~~Aroclor-1016~~  
~~Aroclor-1221~~  
~~Aroclor-1232~~  
~~Aroclor-1242~~  
~~Aroclor-1248~~  
~~Aroclor-1254~~  
~~Aroclor-1260~~  
~~PCBs not otherwise specified~~

~~DIOXINS AND FURANS~~

~~Hexachlorodibenzo-p-dioxins~~  
~~Hexachlorodibenzofuran~~  
~~Pentachlorodibenzo-p-dioxins~~  
~~Pentachlorodibenzofuran~~  
~~Tetrachlorodibenzo-p-dioxins~~  
~~Tetrachlorodibenzofuran~~  
~~2,3,7,8-Tetrachlorodibenzo-p-dioxin~~

(Source: Repealed at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 728. Appendix F Technologies to Achieve Deactivation of Characteristics

The treatment standard for many ~~subcategories of D001, D002 and D003 wastes as well as for K044, K045 and K047 wastes is listed in Section 728.142 simply as "Deactivation to remove the characteristics of ignitability, corrosivity, and reactivity".~~ characteristic wastes is stated in the Section 728. 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 ~~this 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 268.2(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. The following appendix presents a partial list of these 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 these alternative methods are not performed in units designated as land disposal~~ underlying hazardous constituents are treated to achieve the UTS.

Waste code/subcategory	Nonwastewaters	Wastewaters
D001 Ignitable Liquids based on 35 Ill. Adm. Code 721.121(a)(1)-Low TOC Nonwastewater Subcategory (containing 1% to <10% 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 <1% 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 STABL INCIN	n.a.
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 2	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), (3) and (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), (7) and	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	CHOXD	CHOXD

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

Note: "n.a." stands for "not applicable".

"fb." Stands for "followed by".

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

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 ~~-(A)<sup>a</sup>-~~ COMPREHENSIVE LIST

Waste code	Waste category	Effective date
<del>California list</del>	<del>Liquid hazardous wastes, including free liquids associated with solid or sludge, containing free cyanides at concentrations greater than or equal to 1,000 mg/l or certain metals or compounds of these metals greater than or equal to the prohibition levels</del>	<del>July 8, 1987.</del>
<del>California list</del>	<del>Liquid (aqueous) hazardous wastes having a pH less than or equal to 2</del>	<del>July 8, 1987.</del>
<del>California list</del>	<del>Dilute HOC wastewaters, defined as HOC waste mixtures that are primarily water and that contain greater than or equal to 1,000 mg/l but less than 10,000 mg/l</del>	<del>July 8, 1987.</del>
<del>California list</del>	<del>Liquid hazardous waste containing PCBs greater than or equal to 50 ppm</del>	<del>July 8, 1987.</del>
<del>California list</del>	<del>Other liquid and nonliquid</del>	<del>Nov. 8,</del>

	<del>hazardous wastes containing HOCs in total concentration greater than or equal to 1,000 mg</del>	<del>1988.</del>
D001 <sup>e</sup>	All <u>(except High TOC Ignitable Liquids)</u>	<del>Aug. 8, 1990</del> Aug. 9, 1993.
D001	<u>High TOC Ignitable Liquids</u>	Aug. 8, 1990.
D002 <sup>e</sup>	All	<del>Aug. 8, 1990</del> Aug. 9, 1993.
D003 <sup>e</sup>	All	<del>Aug. 8, 1990</del> July 8, 1996.
<b>D004</b>	<b>Wastewater</b>	<b>Aug. 8, 1990.</b>
D004	Nonwastewater	May 8, 1992.
<b>D004</b>	<b>Wastewater</b>	<b>Aug. 8, 1992.</b>
D005	All	Aug. 8, 1990.
D006	All	Aug. 8, 1990.
D007	All	Aug. 8, 1990.
D008	Lead materials before secondary smelting	May 8, 1992.
D008	All others	Aug. 8, 1990.
D009	Nonwastewater	May 8, 1992.
D009	All others	Aug. 8, 1990.
D010	All	Aug. 8, 1990.
D011	All	Aug. 8, 1990.
D012 <u>(that exhibit the toxicity characteristic based on the TCLP)<sup>d</sup></u>	All	<del>Aug. 8, 1990</del> Dec. 14, 1994.
D013 <u>(that exhibit the toxicity characteristic based on the TCLP)<sup>d</sup></u>	All	<del>Aug. 8, 1990</del> Dec. 14, 1994.
D014 <u>(that exhibit the toxicity characteristic based on</u>	All	<del>Aug. 8, 1990</del> Dec. 14,

<u>the TCLP)</u> <sup>d</sup>		<u>1994.</u>
<u>D015 (that exhibit</u>	<u>All</u>	<u>Aug. 8,</u>
<u>the toxicity charac-</u>		<u>1990</u>
<u>teristic based on</u>		<u>Dec. 14,</u>
<u>the TCLP)</u> <sup>d</sup>		<u>1994.</u>
<u>D016 (that exhibit</u>	<u>All</u>	<u>Aug. 8,</u>
<u>the toxicity charac-</u>		<u>1990</u>
<u>teristic based on</u>		<u>Dec. 14,</u>
<u>the TCLP)</u> <sup>d</sup>		<u>1994.</u>
<u>D017 (that exhibit</u>	<u>All</u>	<u>Aug. 8,</u>
<u>the toxicity charac-</u>		<u>1990</u>
<u>teristic based on</u>		<u>Dec. 14,</u>
<u>the TCLP)</u> <sup>d</sup>		<u>1994.</u>
<u>D018</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>D018</u>	<u>All others</u>	<u>Dec. 19,</u>
		<u>1994.</u>
<u>D019</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>D019</u>	<u>All others</u>	<u>Dec. 19,</u>
		<u>1994.</u>
<u>D020</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>D020</u>	<u>All others</u>	<u>Dec. 19,</u>
		<u>1994.</u>
<u>D021</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>D021</u>	<u>All others</u>	<u>Dec. 19,</u>
		<u>1994.</u>
<u>D022</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>D022</u>	<u>All others</u>	<u>Dec. 19,</u>
		<u>1994.</u>
<u>D023</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>D023</u>	<u>All others</u>	<u>Dec. 19,</u>
		<u>1994.</u>
<u>D024</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>D024</u>	<u>All others</u>	<u>Dec. 19,</u>
		<u>1994.</u>
<u>D025</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>D025</u>	<u>All others</u>	<u>Dec. 19,</u>
		<u>1994.</u>
<u>D026</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>D026</u>	<u>All others</u>	<u>Dec. 19,</u>
		<u>1994.</u>
<u>D027</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>D027</u>	<u>All others</u>	<u>Dec. 19,</u>

		<u>1994.</u>
<u>D028</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>D028</u>	<u>All others</u>	<u>Dec. 19,</u>
		<u>1994.</u>
<u>D029</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>D029</u>	<u>All others</u>	<u>Dec. 19,</u>
		<u>1994.</u>
<u>D030</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>D030</u>	<u>All others</u>	<u>Dec. 19,</u>
		<u>1994.</u>
<u>D031</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>D031</u>	<u>All others</u>	<u>Dec. 19,</u>
		<u>1994.</u>
<u>D032</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>D032</u>	<u>All others</u>	<u>Dec. 19,</u>
		<u>1994.</u>
<u>D033</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>D033</u>	<u>All others</u>	<u>Dec. 19,</u>
		<u>1994.</u>
<u>D034</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>D034</u>	<u>All others</u>	<u>Dec. 19,</u>
		<u>1994.</u>
<u>D035</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>D035</u>	<u>All others</u>	<u>Dec. 19,</u>
		<u>1994.</u>
<u>D036</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>D036</u>	<u>All others</u>	<u>Dec. 19,</u>
		<u>1994.</u>
<u>D037</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>D037</u>	<u>All others</u>	<u>Dec. 19,</u>
		<u>1994.</u>
<u>D038</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>D038</u>	<u>All others</u>	<u>Dec. 19,</u>
		<u>1994.</u>
<u>D039</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>D039</u>	<u>All others</u>	<u>Dec. 19,</u>
		<u>1994.</u>
<u>D040</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>D040</u>	<u>All others</u>	<u>Dec. 19,</u>

		<u>1994.</u>
<u>D041</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>D041</u>	<u>All others</u>	<u>Dec. 19,</u>
		<u>1994.</u>
<u>D042</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>D042</u>	<u>All others</u>	<u>Dec. 19,</u>
		<u>1994.</u>
<u>D043</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>D043</u>	<u>All others</u>	<u>Dec. 19,</u>
		<u>1994.</u>
F001	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent- containing sludges and solids	Nov. 8, 1988.
F001	All others	Nov. 8, 1986.
F002 (1,1,2- trichloroethane)	Wastewater and Nonwastewater	Aug. 8, 1990.
F002	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent- containing sludges and solids	Nov. 8, 1988.
F002	All others	Nov. 8, 1986.
F003	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent- containing sludges and solids	Nov. 8, 1988.
F003	All others	Nov. 8, 1986.
F004	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent- containing sludges and solids	Nov. 8, 1988.
F004	All others	Nov. 8, 1986.
F005 (benzene, 2- ethoxy ethanol, 2- nitropropane)	Wastewater and Nonwastewater	Aug. 8, 1990.
F005	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent- containing sludges and solids	Nov. 8, 1988.
F005	All others	Nov. 8,

F006	Wastewater	1986. Aug. 8, 1990.
F006	Nonwastewater	Aug. 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	Dec. 8, 1989.
F011	All others	July 8, 1989.
F012 (cyanides)	Nonwastewater	Dec. 8, 1989.
F012	All others	July 8, 1989.
F019	All	Aug. 8, 1990.
F020	All	Nov. 8, 1988.
F021	All	Nov. 8, 1988.
F022	All	<del>Nov. 8, 1988.</del>
F023	All	<del>Nov. 8, 1988.</del>
<del>F024 (metals)</del>	<del>Wastewater</del>	<del>June 8, 1989.</del>
<del>F024 (metals)</del>	<del>Nonwastewater</del>	<del>Aug. 8, 1990.</del>
<del>F024 B</del>	<del>All others</del>	<del>June 8, 1989.</del>
F025	All	Aug. 8, 1990.
F026	All	Nov. 8, 1988.
F027	All	Nov. 8, 1988.
F028	All	Nov. 8, 1988.
<u>F032</u>	<u>Mixed with radioactive wastes</u>	<u>May 12, 1999</u>
<u>F032</u>	<u>All others</u>	<u>May 12, 1997</u>
<u>F033</u>	<u>Mixed with radioactive wastes</u>	<u>May 12,</u>

<u>F033</u>	<u>All others</u>	<u>1999</u> <u>May 12,</u> <u>1997</u>
<u>F034</u>	<u>Mixed with radioactive wastes</u>	<u>May 12,</u> <u>1999</u>
<u>F034</u>	<u>All others</u>	<u>May 12,</u> <u>1997</u>
<u>F037</u>	<u>Not generated from surface</u> <u>impoundment cleanouts or</u> <u>closures.</u>	<u>June 30,</u> <u>1993.</u>
<u>F037</u>	<u>Generated from surface</u> <u>impoundment cleanouts or</u> <u>closures.</u>	<u>June 30,</u> <u>1994.</u>
<u>F037</u>	<u>Mixed with radioactive wastes</u>	<u>June 30,</u> <u>1994.</u>
<u>F038</u>	<u>Not generated from surface</u> <u>impoundment cleanouts or</u> <u>closures.</u>	<u>June 30,</u> <u>1993.</u>
<u>F038</u>	<u>Generated from surface</u> <u>impoundment cleanouts or</u> <u>closures.</u>	<u>June 30,</u> <u>1994.</u>
<u>F038</u>	<u>Mixed with radioactive wastes</u>	<u>June 30,</u> <u>1994.</u>
F039	Wastewater	Aug. 8, 1990.
F039	Nonwastewater	May 8, 1992.
K001 (organics) <sup>B</sup> -B	All	Aug. 8, 1988.
K001	All others	Aug. 8, 1988.
K002	All	Aug. 8, 1990.
K003	All	Aug. 8, 1990.
K004	Wastewater	Aug. 8, 1990.
K004-E	Nonwastewater	Aug. 8, 1988.
K005	Wastewater	Aug. 8, 1990.
K005-E	Nonwastewater	June 8, 1989.
K006	All	Aug. 8, 1990.
K007	Wastewater	Aug. 8, 1990.
K007-E	Nonwastewater	June 8, 1989.
K008	Wastewater	Aug. 8, 1990.
K008-E	Nonwastewater	Aug. 8,

K009	All	1988. June 8, 1989.
K010	All	June 8, 1989.
K011	Wastewater	Aug. 8, 1990.
K011	Nonwastewater	June 8, 1989.
K013	Wastewater	Aug. 8, 1990.
K013	Nonwastewater	June 8, 1989.
K014	Wastewater	Aug. 8, 1990.
K014	Nonwastewater	June 8, 1989.
K015	Wastewater	Aug. 8, 1988.
K015	Nonwastewater	Aug. 8, 1990.
K016	All	Aug. 8, 1988.
K017	All	Aug. 8, 1990.
K018	All	Aug. 8, 1988.
K019	All	Aug. 8, 1988.
K020	All	Aug. 8, 1988.
K021	Wastewater	Aug. 8, 1990.
K021-€	Nonwastewater	Aug. 8, 1988.
K022	Wastewater	Aug. 8, 1990.
K022	Nonwastewater	Aug. 8, 1988.
K023	All	June 8, 1989.
K024	All	Aug. 8, 1988.
K025	Wastewater	Aug. 8, 1990.
K025-€	Nonwastewater	Aug. 8, 1988.
K026	All	Aug. 8, 1990.
K027	All	June 8, 1989.
K028 (metals)	Nonwastewater	Aug. 8,

K028	All others	1990. June 8, 1989.
K029	Wastewater	Aug. 8, 1990.
K029	Nonwastewater	June 8, 1989.
K030	All	Aug. 8, 1988.
K031	Wastewater	Aug. 8, 1990.
K031	Nonwastewater	May 8, 1992.
K032	All	Aug. 8, 1990.
K033	All	Aug. 8, 1990.
K034	All	Aug. 8, 1990.
K035	All	Aug. 8, 1990.
K036	Wastewater	June 8, 1989.
K036-€	Nonwastewater	Aug. 8, 1988.
K037 <sup>B</sup> -B	Wastewater	Aug. 8, 1988.
K037	Nonwastewater	Aug. 8, 1988.
K038	All	June 8, 1989.
K039	All	June 8, 1989.
K040	All	June 8, 1989.
K041	All	Aug. 8, 1990.
K042	All	Aug. 8, 1990.
K043	All	June 8, 1989.
K044-€	All	Aug. 8, 1988.
K045-€	All	Aug. 8, 1988.
K046 (Nonreactive)	Nonwastewater	Aug. 8, 1988.
K046	All others	Aug. 8, 1990.
K047-€	All	Aug. 8, 1988.
K048	Wastewater	Aug. 8,

K048	Nonwastewater	1990. Nov. 8,
K049	Wastewater	1990. Aug. 8,
K049	Nonwastewater	1990. Nov. 8,
K050	Wastewater	1990. Aug. 8,
K050	Nonwastewater	1990. Nov. 8,
K051	Wastewater	1990. Aug. 8,
K051	Nonwastewater	1990. Nov. 8,
K052	Wastewater	1990. Aug. 8,
K052	Nonwastewater	1990. Nov. 8,
K060	Wastewater	1990. Aug. 8,
K060-E	Nonwastewater	1990. Aug. 8,
K061	Wastewater	1988. Aug. 8,
K061-(low zinc) (interim standard for high zinc remains in effect until August 7, 1991).	Nonwastewater	<del>Aug. 8,</del> <del>1988</del> <u>June 30,</u> <u>1992.</u>
K062	All	Aug. 8, 1988.
K069 (Non-Calcium Sulfate)-E	Nonwastewater	Aug. 8, 1988.
K069	All others	Aug. 8, 1990.
K071	All	Aug. 8, 1990.
K073	All	Aug. 8, 1990.
K083	All	Aug. 8, 1990.
K084	Wastewater	Aug. 8, 1990.
K084	Nonwastewater	May 8, 1992.
K085	All	Aug. 8, 1990.
K086 (organics) <sup>B</sup> -B	All	Aug. 8, 1988.
K086	All others	Aug. 8,

K087	All	1988. Aug. 8, 1988.
<u>K088</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u> <u>1998.</u>
<u>K088</u>	<u>All others</u>	<u>Jan. 8,</u> <u>1997.</u>
K093	All	June 8, 1989.
K094	All	June 8, 1989.
K095	Wastewater	Aug. 8, 1990.
K095	Nonwastewater	June 8, 1989.
K096	Wastewater	Aug. 8, 1990.
K096	Nonwastewater	June 8, 1989.
K097	All	Aug. 8, 1990.
K098	All	Aug. 8, 1990.
K099	All	Aug. 8, 1988.
K100	Wastewater	Aug. 8, 1990.
K100-E	Nonwastewater	Aug. 8, 1988.
K101 (organics)	Wastewater	Aug. 8, 1988.
K101 (metals)	Wastewater	Aug. 8, 1990.
K101 (organics)	Nonwastewater	Aug. 8, 1988.
K101 (metals)	Nonwastewater	May 8, 1992.
K102 (organics)	Wastewater	Aug. 8, 1988.
K102 (metals)	Wastewater	Aug. 8, 1990.
K102 (organics)	Nonwastewater	Aug. 8, 1988.
K102 (metals)	Nonwastewater	May 8, 1992.
K103	All	Aug. 8, 1988.
K104	All	Aug. 8, 1988.
K105	All	Aug. 8, 1990.
K106	Wastewater	Aug. 8,

K106	Nonwastewater	1990. May 8, 1992.
<u>K107</u>	<u>Mixed with radioactive wastes</u>	<u>June 30,</u> <u>1994.</u>
<u>K107</u>	<u>All others</u>	<u>Nov. 9,</u> <u>1992.</u>
<u>K108</u>	<u>Mixed with radioactive wastes</u>	<u>June 30,</u> <u>1994.</u>
<u>K108</u>	<u>All others</u>	<u>Nov. 9,</u> <u>1992.</u>
<u>K109</u>	<u>Mixed with radioactive wastes</u>	<u>June 30,</u> <u>1994.</u>
<u>K109</u>	<u>All others</u>	<u>Nov. 9,</u> <u>1992.</u>
<u>K110</u>	<u>Mixed with radioactive wastes</u>	<u>June 30,</u> <u>1994.</u>
<u>K110</u>	<u>All others</u>	<u>Nov. 9,</u> <u>1992.</u>
<u>K111</u>	<u>Mixed with radioactive wastes</u>	<u>June 30,</u> <u>1994.</u>
<u>K111</u>	<u>All others</u>	<u>Nov. 9,</u> <u>1992.</u>
<u>K112</u>	<u>Mixed with radioactive wastes</u>	<u>June 30,</u> <u>1994.</u>
<u>K112</u>	<u>All others</u>	<u>Nov. 9,</u> <u>1992.</u>
K113	All	June 8, 1989.
K114	All	June 8, 1989.
K115	All	June 8, 1989.
K116	All	June 8, 1989.
<u>K117</u>	<u>Mixed with radioactive wastes</u>	<u>June 30,</u> <u>1994.</u>
<u>K117</u>	<u>All others</u>	<u>Nov. 9,</u> <u>1992.</u>
<u>K118</u>	<u>Mixed with radioactive wastes</u>	<u>June 30,</u> <u>1994.</u>
<u>K118</u>	<u>All others</u>	<u>Nov. 9,</u> <u>1992.</u>
<u>K123</u>	<u>Mixed with radioactive wastes</u>	<u>June 30,</u> <u>1994.</u>
<u>K123</u>	<u>All others</u>	<u>Nov. 9,</u> <u>1992.</u>
<u>K124</u>	<u>Mixed with radioactive wastes</u>	<u>June 30,</u> <u>1994.</u>
<u>K124</u>	<u>All others</u>	<u>Nov. 9,</u> <u>1992.</u>
<u>K125</u>	<u>Mixed with radioactive wastes</u>	<u>June 30,</u>

<u>K125</u>	<u>All others</u>	<u>1994.</u> <u>Nov. 9,</u> <u>1992.</u>
<u>K126</u>	<u>Mixed with radioactive wastes</u>	<u>June 30,</u> <u>1994.</u>
<u>K126</u>	<u>All others</u>	<u>Nov. 9,</u> <u>1992.</u>
<u>K131</u>	<u>Mixed with radioactive wastes</u>	<u>June 30,</u> <u>1994.</u>
<u>K131</u>	<u>All others</u>	<u>Nov. 9,</u> <u>1992.</u>
<u>K132</u>	<u>Mixed with radioactive wastes</u>	<u>June 30,</u> <u>1994.</u>
<u>K132</u>	<u>All others</u>	<u>Nov. 9,</u> <u>1992.</u>
<u>K136</u>	<u>Mixed with radioactive wastes</u>	<u>June 30,</u> <u>1994.</u>
<u>K136</u>	<u>All others</u>	<u>Nov. 9,</u> <u>1992.</u>
<u>K141</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u> <u>1996.</u>
<u>K141</u>	<u>All others</u>	<u>Dec. 19,</u> <u>1994.</u>
<u>K142</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u> <u>1996</u>
<u>K142</u>	<u>All others</u>	<u>Dec. 19,</u> <u>1994.</u>
<u>K143</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u> <u>1996.</u>
<u>K143</u>	<u>All others</u>	<u>Dec. 19,</u> <u>1994.</u>
<u>K144</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u> <u>1996.</u>
<u>K144</u>	<u>All others</u>	<u>Dec. 19,</u> <u>1994.</u>
<u>K145</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u> <u>1996.</u>
<u>K145</u>	<u>All others</u>	<u>Dec. 19,</u> <u>1994.</u>
<u>K147</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u> <u>1996.</u>
<u>K147</u>	<u>All others</u>	<u>Dec. 19,</u> <u>1994.</u>
<u>K148</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u> <u>1996.</u>
<u>K148</u>	<u>All others</u>	<u>Dec. 19,</u> <u>1994.</u>
<u>K149</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u> <u>1996.</u>
<u>K149</u>	<u>All others</u>	<u>Dec. 19,</u> <u>1994.</u>
<u>K150</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>

		<u>1996.</u>
<u>K150</u>	<u>All others</u>	<u>Dec. 19,</u>
		<u>1994.</u>
<u>K151</u>	<u>Mixed with radioactive wastes</u>	<u>Sep. 19,</u>
		<u>1996.</u>
<u>K151</u>	<u>All others</u>	<u>Dec. 19,</u>
		<u>1994.</u>
<u>K156</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>K156</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>K157</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>K157</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>K158</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>K158</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>K159</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>K159</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>K160</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>K160</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>K161</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>K161</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
P001	All	Aug. 8,
		1990.
P002	All	Aug. 8,
		1990.
P003	All	Aug. 8,
		1990.
P004	All	Aug. 8,
		1990.
P005	All	Aug. 8,
		1990.
P006	All	Aug. 8,
		1990.
P007	All	Aug. 8,
		1990.
P008	All	Aug. 8,
		1990.
P009	All	Aug. 8,
		1990.
P010	Wastewater	Aug. 8,
		1990.
P010	Nonwastewater	May 8,

P011	Wastewater	1992. Aug. 8, 1990.
P011	Nonwastewater	May 8, 1992.
P012	Wastewater	Aug. 8, 1990.
P012	Nonwastewater	May 8, 1992.
P013 (barium)	Nonwastewater	Aug. 8, 1990.
P013	All others	June 8, 1989.
P014	All	Aug. 8, 1990.
P015	All	Aug. 8, 1990.
P016	All	Aug. 8, 1990.
P017	All	Aug. 8, 1990.
P018	All	Aug. 8, 1990.
P020	All	Aug. 8, 1990.
P021	All	June 8, 1989.
P022	All	Aug. 8, 1990.
P023	All	Aug. 8, 1990.
P024	All	Aug. 8, 1990.
P026	All	Aug. 8, 1990.
P027	All	Aug. 8, 1990.
P028	All	Aug. 8, 1990.
P029	All	June 8, 1989.
P030	All	June 8, 1989.
P031	All	Aug. 8, 1990.
P033	All	Aug. 8, 1990.
P034	All	Aug. 8, 1990.
P036	Wastewater	Aug. 8, 1990.
P036	Nonwastewater	May 8,

P037	All	1992. Aug. 8, 1990.
P038	Wastewater	Aug. 8, 1990.
P038	Nonwastewater	May 8, 1992.
P039	All	June 8, 1989.
P040	All	June 8, 1989.
P041	All	June 8, 1989.
P042	All	Aug. 8, 1990.
P043	All	June 8, 1989.
P044	All	June 8, 1989.
P045	All	Aug. 8, 1990.
P046	All	Aug. 8, 1990.
P047	All	Aug. 8, 1990.
P048	All	Aug. 8, 1990.
P049	All	Aug. 8, 1990.
P050	All	Aug. 8, 1990.
P051	All	Aug. 8, 1990.
P054	All	Aug. 8, 1990.
P056	All	Aug. 8, 1990.
P057	All	Aug. 8, 1990.
P058	All	Aug. 8, 1990.
P059	All	Aug. 8, 1990.
P060	All	Aug. 8, 1990.
P062	All	June 8, 1989.
P063	All	June 8, 1989.
P064	All	Aug. 8, 1990.
P065	Wastewater	Aug. 8,

P065	Nonwastewater	1990. May 8, 1992.
P066	All	Aug. 8, 1990.
P067	All	Aug. 8, 1990.
P068	All	Aug. 8, 1990.
P069	All	Aug. 8, 1990.
P070	All	Aug. 8, 1990.
P071	All	June 8, 1989.
P072	All	Aug. 8, 1990.
P073	All	Aug. 8, 1990.
P074	All	June 8, 1989.
P075	All	Aug. 8, 1990.
P076	All	Aug. 8, 1990.
P077	All	Aug. 8, 1990.
P078	All	Aug. 8, 1990.
P081	All	Aug. 8, 1990.
P082	All	Aug. 8, 1990.
P084	All	Aug. 8, 1990.
P085	All	June 8, 1989.
P087	All	May 8, 1992.
P088	All	Aug. 8, 1990.
P089	All	June 8, 1989.
P092	Wastewater	Aug. 8, 1990.
P092	Nonwastewater	May 8, 1992.
P093	All	Aug. 8, 1990.
P094	All	June 8, 1989.
P095	All	Aug. 8,

P096	All	1990. Aug. 8,
P097	All	1990. June 8,
P098	All	1989. June 8,
P099 (silver)	Wastewater	1989. Aug. 8,
P099	All others	1990. June 8,
P101	All	1989. Aug. 8,
P102	All	1990. Aug. 8,
P103	All	1990. Aug. 8,
P104 (silver)	Wastewater	1990. Aug. 8,
P104	All others	1990. June 8,
P105	All	1989. Aug. 8,
P106	All	1990. June 8,
P108	All	1989. Aug. 8,
P109	All	1990. June 8,
P110	All	1989. Aug. 8,
P111	All	1990. June 8,
P112	All	1989. Aug. 8,
P113	All	1990. Aug. 8,
P114	All	1990. Aug. 8,
P115	All	1990. Aug. 8,
P116	All	1990. Aug. 8,
P118	All	1990. Aug. 8,
P119	All	1990. Aug. 8,
P120	All	1990. Aug. 8,
P121	All	1990. June 8,
P122	All	1989. Aug. 8,

P123	All	1990. Aug. 8, 1990.
<u>P127</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u> <u>1998.</u>
<u>P127</u>	<u>All others</u>	<u>July 8,</u> <u>1996.</u>
<u>P128</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u> <u>1998.</u>
<u>P128</u>	<u>All others</u>	<u>July 8,</u> <u>1996.</u>
<u>P185</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u> <u>1998.</u>
<u>P185</u>	<u>All others</u>	<u>July 8,</u> <u>1996.</u>
<u>P188</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u> <u>1998.</u>
<u>P188</u>	<u>All others</u>	<u>July 8,</u> <u>1996.</u>
<u>P189</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u> <u>1998.</u>
<u>P189</u>	<u>All others</u>	<u>July 8,</u> <u>1996.</u>
<u>P190</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u> <u>1998.</u>
<u>P190</u>	<u>All others</u>	<u>July 8,</u> <u>1996.</u>
<u>P191</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u> <u>1998.</u>
<u>P191</u>	<u>All others</u>	<u>July 8,</u> <u>1996.</u>
<u>P192</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u> <u>1998.</u>
<u>P192</u>	<u>All others</u>	<u>July 8,</u> <u>1996.</u>
<u>P194</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u> <u>1998.</u>
<u>P194</u>	<u>All others</u>	<u>July 8,</u> <u>1996.</u>
<u>P196</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u> <u>1998.</u>
<u>P196</u>	<u>All others</u>	<u>July 8,</u> <u>1996.</u>
<u>P197</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u> <u>1998.</u>
<u>P197</u>	<u>All others</u>	<u>July 8,</u> <u>1996.</u>
<u>P198</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u> <u>1998.</u>
<u>P198</u>	<u>All others</u>	<u>July 8,</u> <u>1996.</u>
<u>P199</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>

		<u>1998.</u>
<u>P199</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>P201</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>P201</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>P202</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>P202</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>P203</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>P203</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>P204</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>P204</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>P205</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>P205</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
U001	All	Aug. 8,
		1990.
U002	All	Aug. 8,
		1990.
U003	All	Aug. 8,
		1990.
U004	All	Aug. 8,
		1990.
U005	All	Aug. 8,
		1990.
U006	All	Aug. 8,
		1990.
U007	All	Aug. 8,
		1990.
U008	All	Aug. 8,
		1990.
U009	All	Aug. 8,
		1990.
U010	All	Aug. 8,
		1990.
U011	All	Aug. 8,
		1990.
U012	All	Aug. 8,
		1990.
U014	All	Aug. 8,
		1990.
U015	All	Aug. 8,
		1990.
U016	All	Aug. 8,

U017	All	1990. Aug. 8,
U018	All	1990. Aug. 8,
U019	All	1990. Aug. 8,
U020	All	1990. Aug. 8,
U021	All	1990. Aug. 8,
U022	All	1990. Aug. 8,
U023	All	1990. Aug. 8,
U024	All	1990. Aug. 8,
U025	All	1990. Aug. 8,
U026	All	1990. Aug. 8,
U027	All	1990. Aug. 8,
U028	All	1990. June 8,
U029	All	1989. Aug. 8,
U030	All	1990. Aug. 8,
U031	All	1990. Aug. 8,
U032	All	1990. Aug. 8,
U033	All	1990. Aug. 8,
U034	All	1990. Aug. 8,
U035	All	1990. Aug. 8,
U036	All	1990. Aug. 8,
U037	All	1990. Aug. 8,
U038	All	1990. Aug. 8,
U039	All	1990. Aug. 8,
U041	All	1990. Aug. 8,
U042	All	1990. Aug. 8,
U043	All	1990. Aug. 8,

U044	All	1990. Aug. 8,
U045	All	1990. Aug. 8,
U046	All	1990. Aug. 8,
U047	All	1990. Aug. 8,
U048	All	1990. Aug. 8,
U049	All	1990. Aug. 8,
U050	All	1990. Aug. 8,
U051	All	1990. Aug. 8,
U052	All	1990. Aug. 8,
U053	All	1990. Aug. 8,
U055	All	1990. Aug. 8,
U056	All	1990. Aug. 8,
U057	All	1990. Aug. 8,
U058	All	1990. June 8,
U059	All	1989. Aug. 8,
U060	All	1990. Aug. 8,
U061	All	1990. Aug. 8,
U062	All	1990. Aug. 8,
U063	All	1990. Aug. 8,
U064	All	1990. Aug. 8,
U066	All	1990. Aug. 8,
U067	All	1990. Aug. 8,
U068	All	1990. Aug. 8,
U069	All	1990. <del>June 8,</del> <del>1989</del> <u>June 30,</u> <u>1992.</u>
U070	All	Aug. 8,

U071	All	1990. Aug. 8,
U072	All	1990. Aug. 8,
U073	All	1990. Aug. 8,
U074	All	1990. Aug. 8,
U075	All	1990. Aug. 8,
U076	All	1990. Aug. 8,
U077	All	1990. Aug. 8,
U078	All	1990. Aug. 8,
U079	All	1990. Aug. 8,
U080	All	1990. Aug. 8,
U081	All	1990. Aug. 8,
U082	All	1990. Aug. 8,
U083	All	1990. Aug. 8,
U084	All	1990. Aug. 8,
U085	All	1990. Aug. 8,
U086	All	1990. Aug. 8,
U087	All	1990. June 8,
U088	All	1989. June 8,
U089	All	1989. Aug. 8,
U090	All	1990. Aug. 8,
U091	All	1990. Aug. 8,
U092	All	1990. Aug. 8,
U093	All	1990. Aug. 8,
U094	All	1990. Aug. 8,
U095	All	1990. Aug. 8,
U096	All	1990. Aug. 8,

U097	All	1990. Aug. 8,
U098	All	1990. Aug. 8,
U099	All	1990. Aug. 8,
U101	All	1990. Aug. 8,
U102	All	1990. June 8,
U103	All	1989. Aug. 8,
U105	All	1990. Aug. 8,
U106	All	1990. Aug. 8,
U107	All	1990. June 8,
U108	All	1989. Aug. 8,
U109	All	1990. Aug. 8,
U110	All	1990. Aug. 8,
U111	All	1990. Aug. 8,
U112	All	1990. Aug. 8,
U113	All	1990. Aug. 8,
U114	All	1990. Aug. 8,
U115	All	1990. Aug. 8,
U116	All	1990. Aug. 8,
U117	All	1990. Aug. 8,
U118	All	1990. Aug. 8,
U119	All	1990. Aug. 8,
U120	All	1990. Aug. 8,
U121	All	1990. Aug. 8,
U122	All	1990. Aug. 8,
U123	All	1990. Aug. 8,
U124	All	1990. Aug. 8,

U125	All	1990. Aug. 8,
U126	All	1990. Aug. 8,
U127	All	1990. Aug. 8,
U128	All	1990. Aug. 8,
U129	All	1990. Aug. 8,
U130	All	1990. Aug. 8,
U131	All	1990. Aug. 8,
U132	All	1990. Aug. 8,
U133	All	1990. Aug. 8,
U134	All	1990. Aug. 8,
U135	All	1990. Aug. 8,
U136	Wastewater	1990. Aug. 8,
U136	Nonwastewater	1990. May 8,
U137	All	1992. Aug. 8,
U138	All	1990. Aug. 8,
U140	All	1990. Aug. 8,
U141	All	1990. Aug. 8,
U142	All	1990. Aug. 8,
U143	All	1990. Aug. 8,
U144	All	1990. Aug. 8,
U145	All	1990. Aug. 8,
U146	All	1990. Aug. 8,
U147	All	1990. Aug. 8,
U148	All	1990. Aug. 8,
U149	All	1990. Aug. 8,
U150	All	1990. Aug. 8,

U151	Wastewater	1990. Aug. 8,
U151	Nonwastewater	1990. May 8,
U152	All	1992. Aug. 8,
U153	All	1990. Aug. 8,
U154	All	1990. Aug. 8,
U155	All	1990. Aug. 8,
U156	All	1990. Aug. 8,
U157	All	1990. Aug. 8,
U158	All	1990. Aug. 8,
U159	All	1990. Aug. 8,
U160	All	1990. Aug. 8,
U161	All	1990. Aug. 8,
U162	All	1990. Aug. 8,
U163	All	1990. Aug. 8,
U164	All	1990. Aug. 8,
U165	All	1990. Aug. 8,
U166	All	1990. Aug. 8,
U167	All	1990. Aug. 8,
U168	All	1990. Aug. 8,
U169	All	1990. Aug. 8,
U170	All	1990. Aug. 8,
U171	All	1990. Aug. 8,
U172	All	1990. Aug. 8,
U173	All	1990. Aug. 8,
U174	All	1990. Aug. 8,
U176	All	1990. Aug. 8,

U177	All	1990. Aug. 8, 1990.
U178	All	Aug. 8, 1990.
U179	All	Aug. 8, 1990.
U180	All	Aug. 8, 1990.
U181	All	Aug. 8, 1990.
U182	All	Aug. 8, 1990.
U183	All	Aug. 8, 1990.
U184	All	Aug. 8, 1990.
U185	All	Aug. 8, 1990.
U186	All	Aug. 8, 1990.
U187	All	Aug. 8, 1990.
U188	All	Aug. 8, 1990.
U189	All	Aug. 8, 1990.
U190	All	June 8, 1989.
U191	All	Aug. 8, 1990.
U192	All	Aug. 8, 1990.
U193	All	Aug. 8, 1990.
U194	All	<del>Aug. 8, 1990</del> <u>June 8, 1989.</u>
U196	All	Aug. 8, 1990.
U197	All	Aug. 8, 1990.
U200	All	Aug. 8, 1990.
U201	All	Aug. 8, 1990.
U202	All	Aug. 8, 1990.
U203	All	Aug. 8, 1990.
U204	All	Aug. 8,

U205	All	1990. Aug. 8,
U206	All	1990. Aug. 8,
U207	All	1990. Aug. 8,
U208	All	1990. Aug. 8,
U209	All	1990. Aug. 8,
U210	All	1990. Aug. 8,
U211	All	1990. Aug. 8,
U213	All	1990. Aug. 8,
U214	All	1990. Aug. 8,
U215	All	1990. Aug. 8,
U216	All	1990. Aug. 8,
U217	All	1990. Aug. 8,
U218	All	1990. Aug. 8,
U219	All	1990. Aug. 8,
U220	All	1990. Aug. 8,
U221	All	1990. June 8,
U222	All	1989. Aug. 8,
U223	All	1990. June 8,
U225	All	1989. Aug. 8,
U226	All	1990. Aug. 8,
U227	All	1990. Aug. 8,
U228	All	1990. Aug. 8,
U234	All	1990. Aug. 8,
U235	All	1990. June 8,
U236	All	1989. Aug. 8,
U237	All	1990. Aug. 8,

U238	All	1990. Aug. 8, 1990.
U239	All	Aug. 8, 1990.
U240	All	Aug. 8, 1990.
U243	All	Aug. 8, 1990.
U244	All	Aug. 8, 1990.
U246	All	Aug. 8, 1990.
U247	All	Aug. 8, 1990.
U248	All	Aug. 8, 1990.
U249	All	Aug. 8, 1990.
<u>U271</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u> <u>1998.</u>
<u>U271</u>	<u>All others</u>	<u>July 8,</u> <u>1996.</u>
<u>U277</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u> <u>1998.</u>
<u>U277</u>	<u>All others</u>	<u>July 8,</u> <u>1996.</u>
<u>U278</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u> <u>1998.</u>
<u>U278</u>	<u>All others</u>	<u>July 8,</u> <u>1996.</u>
<u>U279</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u> <u>1998.</u>
<u>U279</u>	<u>All others</u>	<u>July 8,</u> <u>1996.</u>
<u>U280</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u> <u>1998.</u>
<u>U280</u>	<u>All others</u>	<u>July 8,</u> <u>1996.</u>
<u>U328</u>	<u>Mixed with radioactive wastes</u>	<u>June 30,</u> <u>1994.</u>
<u>U328</u>	<u>All others</u>	<u>Nov. 9,</u> <u>1992.</u>
<u>U353</u>	<u>Mixed with radioactive wastes</u>	<u>June 30,</u> <u>1994.</u>
<u>U353</u>	<u>All others</u>	<u>Nov. 9,</u> <u>1992.</u>
<u>U359</u>	<u>Mixed with radioactive wastes</u>	<u>June 30,</u> <u>1994.</u>
<u>U359</u>	<u>All others</u>	<u>Nov. 9,</u> <u>1992.</u>
<u>U364</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>

		<u>1998.</u>
<u>U364</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>U365</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>U365</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>U366</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>U366</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>U367</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>U367</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>U372</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>U372</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>U373</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>U373</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>U375</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>U375</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>U376</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>U376</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>U377</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>U377</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>U378</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>U378</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>U379</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>U379</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>U381</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>U381</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>U382</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>U382</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>U383</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>

		<u>1998.</u>
<u>U383</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>U384</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>U384</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>U385</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>U385</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>U386</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>U386</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>U387</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>U387</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>U389</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>U389</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>U390</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>U390</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>U391</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>U391</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>U392</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>U392</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>U393</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>U393</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>U394</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>U394</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>U395</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>U395</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>U396</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>
		<u>1998.</u>
<u>U396</u>	<u>All others</u>	<u>July 8,</u>
		<u>1996.</u>
<u>U400</u>	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u>

U400	<u>All others</u>	<u>1998.</u> <u>July 8,</u> <u>1996.</u>
U401	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u> <u>1998.</u>
U401	<u>All others</u>	<u>July 8,</u> <u>1996.</u>
U402	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u> <u>1998.</u>
U402	<u>All others</u>	<u>July 8,</u> <u>1996.</u>
U403	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u> <u>1998.</u>
U403	<u>All others</u>	<u>July 8,</u> <u>1996.</u>
U404	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u> <u>1998.</u>
U404	<u>All others</u>	<u>July 8,</u> <u>1996.</u>
U407	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u> <u>1998.</u>
U407	<u>All others</u>	<u>July 8,</u> <u>1996.</u>
U409	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u> <u>1998.</u>
U409	<u>All others</u>	<u>July 8,</u> <u>1996.</u>
U410	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u> <u>1998.</u>
U410	<u>All others</u>	<u>July 8,</u> <u>1996.</u>
U411	<u>Mixed with radioactive wastes</u>	<u>Apr. 8,</u> <u>1998.</u>
U411	<u>All others</u>	<u>July 8,</u> <u>1996.</u>

**A<sup>a</sup>** This table does not include mixed radioactive wastes (from the First, Second, and Third rules) which are receiving a national capacity variance until May 8, 1992, ~~for all applicable treatment technologies.~~ This table also does not include contaminated soil and debris wastes.

**B<sup>b</sup>** The standard ~~has been was~~ revised in the Third Third Final Rule (adopted by USEPA at 55 Fed. Reg. 22520 (June 1, 1990) and by the Board in docket R90-11 by orders dated April 11, May 23, and August 8 and 22, 1991).

**C<sup>c</sup>** ~~No land disposal~~ USEPA amended the standard has been revised in the Third Third Final Emergency Rule (at 58 Fed. Reg. 29860 (May 24, 1993), which the Board adopted in docket R93-16 on March 17, 1994); the original effective date was August 8, 1990.

<sup>d</sup> The standard was revised in the Phase II Final Rule (which USEPA adopted at 59 FR 47982 (Sep. 19, 1994) and the Board adopted in docket R95-6 by orders dated June 1 & 15, 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 (which USEPA adopted at 61 FR 15566 (Apr. 8, 1996) and the Board adopted in docket R96-10/R97-3/R97-5 (consolidated) by an order dated November 6, 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 of RCRA corrective actions.	Nov. 8, 1990.
2. Soil and debris not from CERCLA response or RCRA corrective actions contaminated with less than 1% total solvents (F001-F005) or dioxins (F020-F023 and F026-F028).	Nov. 8, 1988.
<del>3. Soil and debris contaminated with California list HOCs from CERCLA response or RCRA corrective actions.</del>	<del>Nov. 8, 1990.</del>
<del>4. Soil and debris contaminated with California list HOCs not from CERCLA response or RCRA corrective actions.</del>	<del>July 8, 1989.</del>
<u>53.</u> All soil and debris contaminated with First Third wastes for which treatment standards are based on incineration.	Aug. 8, 1990.
<u>64.</u> All soil and debris contaminated with Second Third wastes for which treatment standards are based on incineration.	June 8, 1991.
<u>75.</u> All soil and debris contaminated with Third Third wastes or, First or Second Third "soft hammer" wastes which 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.
<u>6.</u> <u>Soil and debris contaminated with D012-D043, K141-K145, and K147-151 wastes.</u>	<u>Dec. 19, 1994.</u>

- 7. Debris (only) contaminated with F037, F038, K107-K112, K117, K118, K123-K126, K131, K132, K136, U328, U353, U359. Dec. 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. Jan. 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.

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

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 728. Appendix H National Capacity LDR Variances for UIC Wastes

See Note<sup>a</sup>

Waste code	Waste category	Effective date
<del>F001-F005</del>	<del>All spent F001-F005 solvent containing less than 1 percent total F001-F005 solvent constituents</del>	<del>Aug. 8, 1990.</del>
<del>California list</del>	<del>Liquid hazardous wastes, including free liquids associated with any solid or sludge, containing free cyanides at concentrations greater than or equal to 1,000 mg/l, or containing certain metals or compounds of these metals greater than or equal to the prohibition levels</del>	<del>Aug. 8, 1990.</del>
<del>California list</del>	<del>Liquid hazardous waste having a Ph less than or equal to 2</del>	<del>Aug. 8, 1990.</del>
<del>California list</del>	<del>Hazardous wastes containing HOCs in total concentrations less than 10,000 mg/l but greater than or equal to 1,000 mg/l</del>	<del>Aug. 8, 1990.</del>

<u>D001 (except High TOC Ignitable Liquids Subcategory)<sup>c</sup></u>	<u>All</u>	<u>Feb. 10, 1994.</u>
<u>D001 (High TOC Ignitable Characteristic Liquids Subcategory)</u>	<u>Nonwastewater</u>	<u>Sep. 19, 1995.</u>
D002 <sup>a-B</sup>	All	May 8, 1992.
<u>D002<sup>c</sup></u>	<u>All</u>	<u>Feb. 10, 1994.</u>
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.
<u>D012</u>	<u>All</u>	<u>Sep. 19, 1995.</u>
<u>D013</u>	<u>All</u>	<u>Sep. 19, 1995.</u>
<u>D014</u>	<u>All</u>	<u>Sep. 19, 1995.</u>
<u>D015</u>	<u>All</u>	<u>Sep. 19, 1995.</u>
<u>D016</u>	<u>All</u>	<u>Sep. 19, 1995.</u>
<u>D017</u>	<u>All</u>	<u>Sep. 19, 1995.</u>
<u>D018</u>	<u>All, including mixed with radioactive wastes</u>	<u>Apr. 8, 1998.</u>
<u>D019</u>	<u>All, including mixed with radioactive wastes</u>	<u>Apr. 8, 1998.</u>
<u>D020</u>	<u>All, including mixed with radioactive wastes</u>	<u>Apr. 8, 1998.</u>
<u>D021</u>	<u>All, including mixed with radioactive wastes</u>	<u>Apr. 8, 1998.</u>
<u>D022</u>	<u>All, including mixed with radioactive wastes</u>	<u>Apr. 8, 1998.</u>
<u>D023</u>	<u>All, including mixed radioactive wastes</u>	<u>Apr. 8, 1998.</u>
<u>D024</u>	<u>All, including mixed radioactive wastes</u>	<u>Apr. 8, 1998.</u>
<u>D025</u>	<u>All, including mixed radioactive</u>	<u>Apr. 8,</u>

	wastes	1998.	
D026	<u>All, including mixed radioactive wastes</u>	<u>Apr. 8, 1998.</u>	
D027	<u>All, including mixed radioactive wastes</u>	<u>Apr. 8, 1998.</u>	
D028	<u>All, including mixed radioactive wastes</u>	<u>Apr. 8, 1998.</u>	
D029	<u>All, including mixed radioactive wastes</u>	<u>Apr. 8, 1998.</u>	
D030	<u>All, including mixed radioactive wastes</u>	<u>Apr. 8, 1998.</u>	
D031	<u>All, including mixed radioactive wastes</u>	<u>Apr. 8, 1998.</u>	
D032	<u>All, including mixed radioactive wastes</u>	<u>Apr. 8, 1998.</u>	
D033	<u>All, including mixed radioactive wastes</u>	<u>Apr. 8, 1998.</u>	
D034	<u>All, including mixed radioactive wastes</u>	<u>Apr. 8, 1998.</u>	
D035	<u>All, including mixed radioactive wastes</u>	<u>Apr. 8, 1998.</u>	
D036	<u>All, including mixed radioactive wastes</u>	<u>Apr. 8, 1998.</u>	
D037	<u>All, including mixed radioactive wastes</u>	<u>Apr. 8, 1998.</u>	
D038	<u>All, including mixed radioactive wastes</u>	<u>Apr. 8, 1998.</u>	
D039	<u>All, including mixed radioactive wastes</u>	<u>Apr. 8, 1998.</u>	
D040	<u>All, including mixed radioactive wastes</u>	<u>Apr. 8, 1998.</u>	
D041	<u>All, including mixed radioactive wastes</u>	<u>Apr. 8, 1998.</u>	
D042	<u>All, including mixed radioactive wastes</u>	<u>Apr. 8, 1998.</u>	
D043	<u>All, including mixed radioactive wastes</u>	<u>Apr. 8, 1998.</u>	
<b>F001-F005</b>	<b>All spent F001-F005 solvent containing less than 1 percent total F001-F005 solvent constituents</b>	<b>Aug. 8, 1990.</b>	
F007	All	June 1991.	8,
F032	<u>All, including mixed radioactive wastes</u>	<u>May 12, 1999.</u>	
F034	<u>All, including mixed radioactive wastes</u>	<u>May 12, 1999.</u>	
F035	<u>All, including mixed radioactive wastes</u>	<u>May 12, 1999.</u>	
F037	<u>All</u>	<u>Nov. 8, 1992.</u>	
F038	<u>All</u>	<u>Nov. 8, 1992.</u>	

F039	Wastewater	May 1992.	8,
K009	Wastewater	June 1991.	8,
K011	Nonwastewater	June 1991.	8,
K011	Wastewater	May 1992.	8,
K013	Nonwastewater	June 1991.	8,
K013	Wastewater	May 1992.	8,
K014	All	May 1992.	8,
K016 (dilute)	All	June 1991.	8,
K049	All	Aug. 1990.	8,
K050	All	Aug. 1990.	8,
K051	All	Aug. 1990.	8,
K052	All	Aug. 1990.	8,
K062	All	Aug. 1990.	8,
K071	All	Aug. 1990.	8,
<u>K088</u>	<u>All</u>	<u>Jan. 1997.</u>	<u>8,</u>
K104	All	Aug. 1990.	8,
<u>K107</u>	<u>All</u>	<u>Nov. 1992.</u>	<u>8,</u>
<u>K108</u>	<u>All</u>	<u>Nov. 1992.</u>	<u>9,</u>
<u>K109</u>	<u>All</u>	<u>Nov. 1992.</u>	<u>9,</u>
<u>K110</u>	<u>All</u>	<u>Nov. 1992.</u>	<u>9,</u>
<u>K111</u>	<u>All</u>	<u>Nov. 1992.</u>	<u>9,</u>
<u>K112</u>	<u>All</u>	<u>Nov. 1992.</u>	<u>9,</u>
<u>K117</u>	<u>All</u>	<u>June 1995.</u>	<u>30,</u>
<u>K118</u>	<u>All</u>	<u>June 1995.</u>	<u>30,</u>
<u>K123</u>	<u>All</u>	<u>Nov. 1992.</u>	<u>9,</u>
<u>K124</u>	<u>All</u>	<u>Nov. 1992.</u>	<u>9,</u>

<u>K125</u>	<u>All</u>	<u>Nov. 9,</u> <u>1992.</u>
<u>K126</u>	<u>All</u>	<u>Nov. 9,</u> <u>1992.</u>
<u>K131</u>	<u>All</u>	<u>June 30,</u> <u>1995.</u>
<u>K132</u>	<u>All</u>	<u>June 30,</u> <u>1995.</u>
<u>K136</u>	<u>All</u>	<u>Nov. 9,</u> <u>1992.</u>
<u>K141</u>	<u>All</u>	<u>Dec. 19,</u> <u>1994.</u>
<u>K142</u>	<u>All</u>	<u>Dec. 19,</u> <u>1994.</u>
<u>K143</u>	<u>All</u>	<u>Dec. 19,</u> <u>1994.</u>
<u>K144</u>	<u>All</u>	<u>Dec. 19,</u> <u>1994.</u>
<u>K145</u>	<u>All</u>	<u>Dec. 19,</u> <u>1994.</u>
<u>K147</u>	<u>All</u>	<u>Dec. 19,</u> <u>1994.</u>
<u>K148</u>	<u>All</u>	<u>Dec. 19,</u> <u>1994.</u>
<u>K149</u>	<u>All</u>	<u>Dec. 19,</u> <u>1994.</u>
<u>K150</u>	<u>All</u>	<u>Dec. 19,</u> <u>1994.</u>
<u>K151</u>	<u>All</u>	<u>Dec. 19,</u> <u>1994.</u>
<u>K156</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>K157</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>K158</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>K159</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>K160</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>K161</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>P127</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>P128</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>P185</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>P188</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>P189</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>

<u>P190</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>P191</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>P192</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>P194</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>P196</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>P197</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>P198</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>P199</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>P201</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>P202</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>P203</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>P204</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>P205</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U271</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U277</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U278</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U279</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U280</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U328</u>	<u>All</u>	<u>Nov. 9,</u> <u>1992.</u>
<u>U353</u>	<u>All</u>	<u>Nov. 9,</u> <u>1992.</u>
<u>U359</u>	<u>All</u>	<u>Nov. 9,</u> <u>1992.</u>
<u>U364</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U365</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U366</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U367</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U372</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>

<u>U373</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U375</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U376</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U377</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U378</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U379</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U381</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U382</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U383</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U384</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U385</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U386</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U387</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U389</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U390</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U391</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U392</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U395</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U396</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U400</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U401</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U402</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U403</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U404</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U407</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U409</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>

<u>U410</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>
<u>U411</u>	<u>All</u>	<u>July 8,</u> <u>1996.</u>

**A<sup>a</sup>** Wastes that are deep well disposed on-site receive a six-month variance, with restrictions effective in November 1990.

**B<sup>b</sup>** Deep well injected D002 liquids with a pH less than 2 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 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 728.Appendix J Recordkeeping, Notification, and Certification Requirements Repealed

<del>Entity and Scenario</del>	<del>Frequency</del>	<del>Recipient of Notification</del>	<del>Recordkeeping, Notification, and Certification Requirements</del>
<del>I. Generator</del>			
<del>A. Waste does not meet applicable treatment standards or exceeds applicable prohibition levels (see Section 728.107(a)(1)).</del>	<del>Each shipment</del>	<del>Treatment or storage facility.</del>	<del>Notice must include:</del> <ul style="list-style-type: none"> <li><del>•U.S. EPA hazardous waste number.</del></li> <li><del>•Constituents of concern.</del></li> <li><del>•Treatability group.</del></li> <li><del>•Manifest number.</del></li> <li><del>•Waste analysis data (where</del></li> </ul>

<p><del>B. Waste can be disposed of without further treatment (meets applicable treatment standards or does not exceed prohibition levels upon generation) (see Section 728.107(a)(2)).</del></p>	<p><del>Each shipment</del></p>	<p><del>Land disposal facility</del></p>	<p><del>available).</del></p> <p><del>Notice and certification statement that waste meets applicable treatment standards or applicable prohibition levels.</del></p> <p><del>Notice must include:</del></p> <ul style="list-style-type: none"> <li><del>•U.S. EPA hazardous waste number.</del></li> <li><del>•Constituents of concern.</del></li> <li><del>•Treatability group.</del></li> <li><del>•Manifest number.</del></li> <li><del>•Waste analysis data (where available).</del></li> </ul> <p><del>Certification statement required under Section 728.107(a)(2)(B) that waste complies with treatment standards and prohibitions.</del></p>
<p><del>C. Waste is subject to exemption from a prohibition on the type of land disposal utilized for the waste, such as a case by</del></p>	<p><del>Each shipment</del></p>	<p><del>Receiving facility</del></p>	<p><del>Notice must include:</del></p> <ul style="list-style-type: none"> <li><del>•Statement that waste is not prohibited from land disposal.</del></li> <li><del>•U.S. EPA</del></li> </ul>

~~case extension under Section 728.105, an exemption under Section 728.106, or a nationwide capacity variance (see Section 728.107(a)(3)).~~

~~hazardous waste number.~~

~~•Constituents of concern.~~

~~•Treatability group.~~

~~•Manifest number.~~

~~•Waste analysis data (where available).~~

~~•Date the waste is subject to the prohibitions.~~

~~D. Waste is being accumulated in tanks or containers regulated under 35 Ill. Adm. Code 722.134 and is being treated in such tanks or containers to meet applicable treatment standards (see Section 728.107(a)(4)).~~

~~Minimum of 30 days prior to treatment activity.~~

~~Agency.— Delivery must be verified.~~

~~Generator must develop, keep on site, and follow a written waste analysis plan describing procedures used to comply with the treatment standards.~~

~~If waste is shipped off-site, generator also must comply with notification requirement of Section 728.107(a)(2).~~

~~E. Generator is managing a lab pack containing certain wastes and wishes to use an alternative treatment standard (see Section 728.107(a)(8)).~~

~~Each shipment~~

~~Treatment facility~~

~~Notice in accordance with Section 728.107(a)(1), (a)(5), and (a)(6), where applicable.~~

~~Certification in accordance with Section 728.107(a)(8).~~

<p><del>F. Small quantity generators with tolling agreements (pursuant to 35 Ill. Adm. Code 722.120(e)) (see Section 728.107(a)(9)).</del></p>	<p><del>Initial shipment</del></p>	<p><del>Treatment facility</del></p>	<p><del>Must comply with applicable notification and certification requirements in Section 728.107(a).</del></p> <p><del>Generator also must retain copy of the notification and certification together with tolling agreement on site for at least 3 years after termination or expiration of agreement.</del></p>
<p><del>G. Generator has determined waste is restricted based solely on his knowledge of the waste (see Section 728.107(a)(5)).</del></p>	<p><del>N/A</del></p>	<p><del>Generator's file</del></p>	<p><del>All supporting data must be retained on site in generator's files.</del></p>
<p><del>H. Generator has determined waste is restricted based on testing waste or an extract (see Section 728.107(a)(5)).</del></p>	<p><del>N/A</del></p>	<p><del>Generator's file</del></p>	<p><del>All waste analysis data must be retained on site in generator's files.</del></p>
<p><del>I. Generator has determined that waste is excluded from the definition of hazardous or solid waste or exempt from RCRA Subtitle C</del></p>	<p><del>One-time</del></p>	<p><del>Generator's file</del></p>	<p><del>Notice of generation and subsequent exclusion from the definition of hazardous or solid waste, or exemption from RCRA Subtitle C</del></p>

~~(hazardous waste) regulation (see Section 728.107(a)(6)).~~

~~(hazardous waste) regulation, and information regarding the disposition of the waste.~~

~~J. Generator (or treater) claims that hazardous debris is excluded from the definition of hazardous waste under 35 Ill. Adm. Code 721.103(f)(1) (see Section 728.107(d)).~~

~~One-time~~

~~Agency.— Notification must be updated as necessary under Section 728.107(d)(2).~~

~~Notice must include:~~

- ~~• Name and address of RCRA Subtitle D (municipal solid waste landfill) facility receiving treated debris.~~

- ~~• U.S. EPA hazardous waste number and description of debris as initially generated.~~

- ~~• Technology used to treat the debris (Table 1 of Section 728.145).~~

~~Certification and recordkeeping in accordance with Section 728.107(d)(3).~~

~~K. Generator (or treater) claims that characteristic wastes are no longer hazardous (see Section 728.109(d)).~~

~~One-time~~

~~Generator's (or treater's) files and Agency.— Notification must be updated as necessary under Section 728.109(d).~~

~~Notice must include:~~

- ~~• Name and address of RCRA Subtitle D (municipal solid waste landfill) facility receiving the waste.~~

- U.S.—EPA hazardous waste number and description of waste as initially generated.

- Treatability group.

- Underlying hazardous constituents.

Certification in accordance with Section 728.109(d)(2).

~~L.—Other recordkeeping requirements (see Section 728.107(a)(7)).~~

N/A

~~Generator's file~~

~~Generator must retain a copy of all notices, certifications, demonstrations, waste analysis data, and other documentation produced pursuant to Section 728.107 on site for at least 5 years from the date that the waste was last sent to on site or off-site treatment, storage, or disposal. This period is automatically extended during enforcement actions or as requested by the Agency.~~

~~II.—Treatment Facility~~

~~A.—Waste~~

~~Each shipment~~

~~Land disposal~~

~~Notice must~~

shipped from treatment facility to land disposal facility (see Sections 728.107(b)(4) and (b)(5)).

facility

include:

- U.S. EPA hazardous waste number.
- Constituents of concern.
- Treatability group.
- Manifest number.
- Waste analysis data (where available).

Application certification, in accordance with Section 728.107(b)(5)-(A), (b)(5)(B) or (b)(5)(C), stating that the waste or treatment residue has been treated in compliance with applicable treatment standards and prohibitions.

B. Waste treatment residue from a treatment or storage facility will be further managed at a different treatment or storage facility (see Section 728.107(b)(6)).

Each shipment

Receiving facility

Treatment, storage, or disposal facility must comply with all notice and certification requirements applicable to generators.

C. Where wastes

Each shipment

Agency.

No notification

~~are recyclable materials used in a manner constituting disposal subject to Section 726.120(b) (see Section 728.107(b)(7)).~~

~~to receiving facility required pursuant to Section 728.107(b)(4).~~

~~Certification as described in Section 728.107(b)(5) and notice with information listed in Section 728.107(b)(4), except manifest number.~~

~~Recycling facility must keep records of the name and location of each entity receiving hazardous waste-derived products.~~

### ~~III. Land Disposal Facility.~~

~~A. Wastes accepted by land disposal facility (see Section 728.107(c)).~~

~~N/A~~

~~N/A~~

~~Maintain copies of notice and certifications specified in Section 728.107(a) and (b).~~

### ~~Certification Statements~~

~~A. 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 35 Ill. Adm. Code 728.Subpart D and all applicable prohibitions set forth in 35 Ill. Adm. Code 728.132 or RCRA section 3004(d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment. (Section 728.107(a)(2)(B))~~

- B. ~~I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack does not contain any wastes identified at Section 728. Appendix D. I am aware that there are significant penalties for submitting a false certification, including possibility of fine or imprisonment. (Section 728.107(a)(8))~~
- C. ~~I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the performance levels specified in 35 Ill. Adm. Code 728. Subpart D, and all applicable prohibitions set forth in 35 Ill. Adm. Code 728.132 or RCRA section 3004(d) without impermissible dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment. (Section 728.107(b)(5)(A))~~
- D. ~~I certify under penalty of law that the waste has been treated in accordance with the requirements of 35 Ill. Adm. Code 728.142. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment. (Section 728.107(b)(5)(B))~~
- E. ~~I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by incineration in units operated in accordance with 35 Ill. Adm. Code 724. Subpart O or 35 Ill. Adm. Code 725. Subpart O or by combustion in fuel substitution units operating in accordance with applicable technical requirements, and I have been unable to detect the nonwastewater organic constituents, despite having used best good faith efforts to analyze for such constituents. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment. (Section 728.107(b)(5)(C))~~
- F. ~~I certify under penalty of law that the waste has been treated in accordance with the requirements of 35 Ill. Adm. Code 728.140 to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet universal~~

~~treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment. (Section 728.107(b)-(5)(D))~~

~~G. I certify under penalty of law that the debris have 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. (Section 728.107(d)-(3)(C))~~

(Source: Repealed at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

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:
- 1) hypochlorite (e.g., bleach);
  - 2) chlorine;
  - 3) chlorine dioxide;
  - 4) ozone or UV (ultraviolet light) assisted ozone;
  - 5) peroxides;
  - 6) persulfates;
  - 7) perchlorates;
  - 8) 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 Combustion-High temperature organic destruction technologies, such as combustion in incinerators, boilers, or industrial furnaces operated in accordance with the applicable requirements of 35 Ill. Adm. Code 724.Subpart O, 725.Subpart O, or 35 Ill. Adm. Code 726.Subpart H, 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 35 Ill. Adm. Code 724.Subpart O or 725.Subpart O. All wastewater and nonwastewater residues derived from this process must then comply with the corresponding treatment standards per waste code with consideration of any applicable subcategories (e.g., high or low mercury subcategories).
- INCIN Incineration in units operated in accordance with the technical operating requirements of 35 Ill. Adm. Code 724.Subpart O or 725.Subpart O.
- 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:
- 1) acids;
  - 2) bases; or
  - 3) water (including wastewaters) resulting in a pH greater than 2 but less than 12.5 as measured in the aqueous residuals.
- NLDBR No land disposal based on recycling.
- POLYM Formation of complex high-molecular weight solids through polymerization of monomers in high-TOC D001 non-wastewaters which are chemical components in the manufacture of plastics.
- PRECP Chemical precipitation of metals and other inorganics as insoluble precipitates of oxides, hydroxides, carbonates, sulfides, sulfates, chlorides, fluorides, or phosphates. The following reagents (or waste reagents) are typically used alone or in combination:
- 1) lime (i.e., containing oxides or hydroxides of calcium or magnesium);
  - 2) caustic (i.e., sodium or potassium hydroxides);
  - 3) soda ash (i.e., sodium carbonate);
  - 4) sodium sulfide;
  - 5) ferric sulfate or ferric chloride;
  - 6) alum; or

- 7) sodium sulfate. Additional flocculating, coagulation, or similar reagents or processes that enhance sludge dewatering characteristics are not precluded from use.

RBERY Thermal recovery of beryllium.

RCGAS Recovery or reuse of compressed gases including techniques such as reprocessing of the gases for reuse or resale; filtering or adsorption of 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 national emissions standard for hazardous air pollutants (NESHAP) for mercury (40 CFR 61, Subpart E);
- 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 waste code 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:
- 1) Portland cement; or
  - 2) lime or pozzolans (e.g., fly ash and cement kiln dust)-  
-this does not preclude the addition of reagents (e.g., iron salts, silicates, and clays) designed to enhance the set or cure time or compressive strength, or to overall reduce the leachability of the metal or inorganic.
- SSTRP Steam stripping of organics from liquid wastes utilizing direct application of steam to the wastes operated such that liquid and vapor flow rates, as well as, temperature and pressure ranges have been optimized, monitored, and maintained. These operating parameters are dependent upon the design parameters of the unit such as, the number of separation stages and the internal column design. Thus, resulting in a condensed extract high in organics that 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 Section 728. 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 40 CFR 268.42, Table 1 (1997).**

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### 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 (1991), 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	Waste Code	See Also	Regulated hazardous constituent	Wastewaters Concentration (mg/L)	Notes	Nonwastewaters Concentration (mg/L)	Notes
Craftsman Plating and Tinning Corp., Chicago, IL	F006	Table A Section 728.140	Cyanides (Total)	1.2	B	1800	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	

Northwestern Plating Works, Inc., Chicago, IL	F006	Table A 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 shall comply with 0.86 mg/L for amenable cyanides in the wastewater exiting the alkaline chlorination system. These owners and operators shall 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 SW-846 Method 9010 or 9012, sample size 10 g, distillation time one hour and fifteen minutes. SW-846 is incorporated by reference in 35 Ill. Adm. Code 720.111.
- NA Not applicable.

**BOARD NOTE: Derived from table to 40 CFR 268.44(o) (1997).**

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 728.Table I Generator Paperwork Requirements

**Subsection of Section 728.107 under Which the Paperwork is Required:**

<u>Required information</u>	<u>(a)(2)</u>	<u>(a)(3)</u>	<u>(a)(4)</u>	<u>(a)(9)</u>
<u>1. EPA Hazardous Waste and Manifest numbers</u>	✓	✓	✓	✓
<u>2. Statement: this waste is not</u>				✓

prohibited from land disposal

3. The waste is subject to the LDRs. The constituents of concern for F001-F005, and F039, and underlying hazardous constituents (for wastes that are not managed in a Clean Water Act (CWA) or CWA-equivalent facility), 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 Section 728.102(d) and (f)) and subdivisions made within a waste code based on waste-specific criteria (such as D003 reactive cyanide)

✓      ✓

5. Waste analysis data (when available)

✓      ✓      ✓

6. Date the waste is subject to the prohibition

✓

7. For hazardous debris, when treating with the alternative treatment technologies provided by Section 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. A certification is needed (see applicable subsection for exact wording)

✓      ✓

**BOARD NOTE: Derived from Table 1 to 40 CFR 268.7(a)(4) (1997).**

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 728. Table T Treatment Standards for Hazardous Wastes

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

Waste Code

Waste Description and Treatment or Regulatory Subcategory<sup>1</sup>

Regulated Hazardous Constituent		Wastewaters	Nonwastewaters
Common Name	CAS <sup>2</sup> Number	Concentration in mg/l <sup>3</sup> ; or Technology Code <sup>4</sup>	Concentration in mg/kg <sup>5</sup> 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% total organic carbon. (Note: This subcategory consists of nonwastewaters only.)			
NA	NA	NA	RORGS; <del>or</del> <u>CMBST; or POLYM</u>
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
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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>
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D003<sup>9</sup>

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

NA	NA	DEACT	DEACT
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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>
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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>
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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

Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for arsenic based on the extraction procedure (EP) in SW-846 Method 1310.

Arsenic	7440-38-2	5.0	5.0 mg/l EP
Arsenic; alternative <sup>6</sup> standard for nonwastewaters only.	7440-38-2	NA	5.0 mg/l TCLP

D005

Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for barium based on the extraction procedure (EP) in SW-846 Method 1310.

Barium	7440-39-3	100	100 mg/l TCLP
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D006

Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for cadmium based on the extraction procedure (EP) in SW-846 Method 1310.

Cadmium	7440-43-9	1.0	1.0 mg/l TCLP
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D006

Cadmium-Containing Batteries Subcategory

(Note: This subcategory consists of nonwastewaters only.)

Cadmium	7440-43-9	NA	RTHRM
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D007

Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for chromium based on the extraction procedure (EP) in SW-846 Method 1310.

Chromium (Total)	7440-47-3	5.0	5.0 mg/l TCLP
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D008

Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for lead based on the extraction procedure (EP) in SW-846 Method 1310.

Lead	7439-92-1	5.0	5.0 mg/l EP
Lead; alternative <sup>6</sup> standard for nonwastewaters only	7439-92-1	NA	5.0 mg/l TCLP

D008

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
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D008

## 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
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D009

Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the extraction procedure (EP) in SW-846 Method 1310; 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
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D009

Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the extraction procedure (EP) in SW-846 Method 1310; 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
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D009

Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the extraction procedure (EP) in SW-846 Method 1310; and contain less than 260 mg/kg total mercury. (Low Mercury Subcategory)

Mercury	7439-97-6	NA	0.20 mg/l TCLP
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All D009 wastewaters.

Mercury	7439-97-6	0.20	NA
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D009

Elemental mercury contaminated with radioactive materials. (Note: This subcategory consists of nonwastewaters only.)

Mercury	7439-97-6	NA	AMLGM
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D009

Hydraulic oil contaminated with Mercury Radioactive Materials Subcategory.

(Note: This subcategory consists of nonwastewaters only.)

Mercury	7439-97-6	NA	IMERC
D010			
Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for selenium based on the extraction procedure (EP) in SW-846 Method 1310.			
Selenium	7782-49-2	1.0	5.7 mg/l TCLP
D011			
Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for silver based on the extraction procedure (EP) in SW-846 Method 1310.			
Silver	7440-22-4	5.0	5.0 mg/l TCLP
D012 <sup>9</sup>			
Wastes that are TC for Endrin based on the TCLP in SW-846 Method 1311.			
Endrin	72-20-8	BIODG; or CMBST	0.13 and meet 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 the TCLP in SW-846 Method 1311.			
$\alpha$ -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 the TCLP in SW-846 Method 1311.			
Methoxychlor	72-43-5	WETOX or	0.18 and

		CMBST	meet Section 728.148 standards <sup>8</sup>
D015 <sup>9</sup> Wastes that are TC for Toxaphene based on the TCLP in SW-846 Method 1311.			
Toxaphene	8001-35-2	BIODG or CMBST	2.6 and meet 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 the TCLP in SW-846 Method 1311.			
2,4-D (2,4-Dichloro- phenoxyacetic 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 the TCLP in SW- 846 Method 1311.			
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 the TCLP in SW-846 Method 1311.			
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 the TCLP in SW-846 Method 1311.			
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 the TCLP in SW-846 Method 1311.			
Chlordane ( <b>alpha</b> and <b>gamma</b> 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 the TCLP in SW-846 Method 1311.

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>
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D022<sup>9</sup>

Wastes that are TC for Chloroform based on the TCLP in SW-846 Method 1311.

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>
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D023<sup>9</sup>

Wastes that are TC for o-Cresol based on the TCLP in SW-846 Method 1311.

o-Cresol	95-48-7	0.11 and meet Section 728.148 standards <sup>8</sup>	5.6 and meet Section 728.148 standards <sup>8</sup>
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D024<sup>9</sup>

Wastes that are TC for m-Cresol based on the TCLP in SW-846 Method 1311.

m-Cresol (difficult to distinguish from p- cresol)	108-39-4	0.77 and meet Section 728.148 standards <sup>8</sup>	5.6 and meet Section 728.148 standards <sup>8</sup>
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D025<sup>9</sup>

Wastes that are TC for p-Cresol based on the TCLP in SW-846 Method 1311.

p-Cresol (difficult to distinguish from m- cresol)	106-44-5	0.77 and meet Section 728.148 standards <sup>8</sup>	5.6 and meet Section 728.148 standards <sup>8</sup>
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D026<sup>9</sup>

Wastes that are TC for Cresols (Total) based on the TCLP in SW-846 Method 1311.

Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentra- tions)	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>
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D027<sup>9</sup>

Wastes that are TC for p-Dichlorobenzene based on the TCLP in SW-846 Method 1311.

p-Dichlorobenzene (1,4-Dichloro- benzene)	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 the TCLP in SW-846 Method 1311.			
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 the TCLP in SW-846 Method 1311.			
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 the TCLP in SW-846 Method 1311.			
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 the TCLP in SW-846 Method 1311.			
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 the TCLP in SW- 846 Method 1311.			
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 the TCLP in SW-846 Method 1311.			

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 the TCLP in SW-846 Method 1311.			
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 the TCLP in SW-846 Method 1311.			
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 the TCLP in SW-846 Method 1311.			
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 the TCLP in SW-846 Method 1311.			
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 the TCLP in SW-846 Method 1311.			
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 the TCLP in SW-846 Method 1311.			
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 the TCLP in SW-846 Method 1311.

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>
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D041<sup>9</sup>

Wastes that are TC for 2,4,5-Trichlorophenol based on the TCLP in SW-846 Method 1311.

2,4,5-Trichloro- phenol	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>
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D042<sup>9</sup>

Wastes that are TC for 2,4,6-Trichlorophenol based on the TCLP in SW-846 Method 1311.

2,4,6-Trichloro- phenol	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>
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D043<sup>9</sup>

Wastes that are TC for Vinyl chloride based on the TCLP in SW-846 Method 1311.

Vinyl chloride	75-01-4	0.27 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>
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## F001, F002, F003, F004 &amp; 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	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)			
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
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Cyclohexanone	108-94-1	0.36	TCLP 0.75 mg/l
Methanol	67-56-1	5.6	TCLP 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
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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
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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	0.19 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.86 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	0.37 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 mg/l TCLP
Silver	7440-22-4	NA	0.30 mg/l TCLP

F007

Spent cyanide plating bath solutions from electroplating operations.

Cadmium	7440-43-9	NA	0.19 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.86 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	0.37 mg/l TCLP

## 509

Nickel	7440-02-0	3.98	5.0 mg/l TCLP
Silver	7440-22-4	NA	0.30 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	0.19 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.86 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	0.37 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 mg/l TCLP
Silver	7440-22-4	NA	0.30 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	0.19 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.86 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	0.37 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 mg/l TCLP
Silver	7440-22-4	NA	0.30 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	0.19 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.86 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

## 510

Lead	7439-92-1	0.69	0.37 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 mg/l TCLP
Silver	7440-22-4	NA	0.30 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	0.19 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.86 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	0.37 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 mg/l TCLP
Silver	7440-22-4	NA	0.30 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	0.86 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 Hexa-chlorodibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexa-chlorodibenzofurans)	NA	0.000063	0.001
PeCDDs (All Penta-chlorodibenzo-p-dioxins)	NA	0.000063	0.001
PeCDFs (All Penta-chlorodibenzofurans)	NA	0.000035	0.001
Pentachlorophenol	87-86-5	0.089	7.4
TCDDs (All Tetra-chlorodibenzo-p-dioxins)	NA	0.000063	0.001
TCDFs (All Tetra-chlorodibenzofurans)	NA	0.000063	0.001
2,4,5-Trichlorophenol	95-95-4	0.18	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4

## 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	0.86 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 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-Trichloro-ethane	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 Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
PeCDFs (All Penta-	NA	0.000035	0.001

chlorodibenzofurans)			
Pentachlorophenol	87-86-5	0.089	7.4
TCDDs (All Tetra- chlorodibenzo-p- dioxins)	NA	0.000063	0.001
TCDFs (All Tetra- chlorodibenzofurans)	NA	0.000063	0.001
2,4,5-Trichloro- phenol	95-95-4	0.18	7.4
2,4,6-Trichloro- phenol	88-06-2	0.035	7.4
2,3,4,6-Tetrachloro- phenol	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 Hexa- chlorodibenzo-p- dioxins)	NA	0.000063	0.001
HxCDFs (All Hexa- chlorodibenzofurans)	NA	0.000063	0.001
PeCDDs (All Penta- chlorodibenzo-p- dioxins)	NA	0.000063	0.001
PeCDFs (All Penta- chlorodibenzofurans)	NA	0.000035	0.001
Pentachlorophenol	87-86-5	0.089	7.4
TCDDs (All Tetra- chlorodibenzo-p- dioxins)	NA	0.000063	0.001
TCDFs (All Tetra- chlorodibenzofurans)	NA	0.000063	0.001
2,4,5-Trichloro- phenol	95-95-4	0.18	7.4
2,4,6-Trichloro- phenol	88-06-2	0.035	7.4
2,3,4,6-Tetrachloro- phenol	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 waste code 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 and/or penta-chlorophenol.

<u>Acenaphthene</u>	<u>83-32-9</u>	<u>0.059</u>	<u>3.4</u>
<u>Anthracene</u>	<u>120-12-7</u>	<u>0.059</u>	<u>3.4</u>
<u>Benz(a)anthracene</u>	<u>56-55-3</u>	<u>0.059</u>	<u>3.4</u>
<u>Benzo(b)fluoranthene</u> <u>(difficult to</u> <u>distinguish from</u> <u>benzo(k)</u> <u>fluoranthene).</u>	<u>205-99-2</u>	<u>0.11</u>	<u>6.8</u>
<u>Benzo(k)fluoranthene</u> <u>(difficult to</u> <u>distinguish from</u> <u>benzo(b)</u> <u>fluoranthene).</u>	<u>207-08-9</u>	<u>0.11</u>	<u>6.8</u>
<u>Benzo(a)pyrene</u>	<u>50-32-8</u>	<u>0.061</u>	<u>3.4</u>
<u>Chrysene</u>	<u>218-01-9</u>	<u>0.059</u>	<u>3.4</u>
<u>Dibenz(a,h)anthracene</u>	<u>53-70-3</u>	<u>0.055</u>	<u>8.2</u>
<u>2-4-Dimethyl phenol</u>	<u>105-67-9</u>	<u>0.036</u>	<u>14</u>
<u>Fluorene</u>	<u>86-73-7</u>	<u>0.059</u>	<u>3.4</u>
<u>Hexachlorodibenzo-p-</u> <u>dioxins</u>	<u>NA</u>	<u>0.000063 or</u> <u>CMBST<sup>11</sup></u>	<u>0.001 or</u> <u>CMBST<sup>11</sup></u>
<u>Hexachlorodibenzofur</u> <u>ans</u>	<u>NA</u>	<u>0.000063 or</u> <u>CMBST<sup>11</sup></u>	<u>0.001 or</u> <u>CMBST<sup>11</sup></u>
<u>Indeno (1,2,3-c,d)</u> <u>pyrene</u>	<u>193-39-5</u>	<u>0.0055</u>	<u>3.4</u>
<u>Naphthalene</u>	<u>91-20-3</u>	<u>0.059</u>	<u>5.6</u>
<u>Pentachlorodibenzo-</u> <u>p-dioxins</u>	<u>NA</u>	<u>0.000063 or</u> <u>CMBST<sup>11</sup></u>	<u>0.001 or</u> <u>CMBST<sup>11</sup></u>
<u>Pentachlorodibenzofu</u> <u>rans</u>	<u>NA</u>	<u>0.000035 or</u> <u>CMBST<sup>11</sup></u>	<u>0.001 or</u> <u>CMBST<sup>11</sup></u>
<u>Pentachlorophenol</u>	<u>87-86-5</u>	<u>0.089</u>	<u>7.4</u>
<u>Phenanthrene</u>	<u>85-01-8</u>	<u>0.059</u>	<u>5.6</u>
<u>Phenol</u>	<u>108-95-2</u>	<u>0.039</u>	<u>6.2</u>
<u>Pyrene</u>	<u>129-00-0</u>	<u>0.067</u>	<u>8.2</u>
<u>Tetrachlorodibenzo-</u> <u>p-dioxins</u>	<u>NA</u>	<u>0.000063 or</u> <u>CMBST<sup>11</sup></u>	<u>0.001 or</u> <u>CMBST<sup>11</sup></u>
<u>Tetrachlorodibenzofu</u> <u>rans</u>	<u>NA</u>	<u>0.000063 or</u> <u>CMBST<sup>11</sup></u>	<u>0.001 or</u> <u>CMBST<sup>11</sup></u>
<u>2,3,4,6-</u> <u>Tetrachlorophenol</u>	<u>58-90-2</u>	<u>0.030</u>	<u>7.4</u>
<u>2,4,6-</u> <u>Trichlorophenol</u>	<u>88-06-2</u>	<u>0.035</u>	<u>7.4</u>
<u>Arsenic</u>	<u>7440-38-2</u>	<u>1.4</u>	<u>5.0 mg/l</u> <u>TCLP</u>
<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.86 mg/l</u> <u>TCLP</u>

## 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.

<u>Acenaphthene</u>	<u>83-32-9</u>	<u>0.059</u>	<u>3.4</u>
<u>Anthracene</u>	<u>120-12-7</u>	<u>0.059</u>	<u>3.4</u>
<u>Benz(a)anthracene</u>	<u>56-55-3</u>	<u>0.059</u>	<u>3.4</u>
<u>Benzo(b)fluoranthene</u> (difficult to distinguish from benzo(k)fluoranthene).	<u>205-99-2</u>	<u>0.11</u>	<u>6.8</u>
<u>Benzo(k)fluoranthene</u> (difficult to distinguish from benzo(b)fluoranthene).	<u>207-08-9</u>	<u>0.11</u>	<u>6.8</u>
<u>Benzo(a)pyrene</u>	<u>50-32-8</u>	<u>0.061</u>	<u>3.4</u>
<u>Chrysene</u>	<u>218-01-9</u>	<u>0.059</u>	<u>3.4</u>
<u>Dibenz(a,h)anthracene</u>	<u>53-70-3</u>	<u>0.055</u>	<u>8.2</u>
<u>Fluorene</u>	<u>86-73-7</u>	<u>0.059</u>	<u>3.4</u>
<u>Indeno (1,2,3-c,d)pyrene</u>	<u>193-39-5</u>	<u>0.0055</u>	<u>3.4</u>
<u>Naphthalene</u>	<u>91-20-3</u>	<u>0.059</u>	<u>5.6</u>
<u>Phenanthrene</u>	<u>85-01-8</u>	<u>0.059</u>	<u>5.6</u>
<u>Pyrene</u>	<u>129-00-0</u>	<u>0.067</u>	<u>8.2</u>
<u>Arsenic</u>	<u>7440-38-2</u>	<u>1.4</u>	<u>5.0 mg/l TCLP</u>
<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.86 mg/l TCLP</u>

## 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.

<u>Arsenic</u>	<u>7440-38-2</u>	<u>1.4</u>	<u>5.0 mg/l TCLP</u>
<u>Chromium (Total)</u>	<u>7440-47-3</u>	<u>2.77</u>	<u>0.86 mg/l TCLP</u>

## F037

Petroleum refinery primary oil/water/solids separation sludge-- Any sludge generated from the gravitational separation of

oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in: oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from 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 concentra- tions)	1330-20-7	0.32	30
Chromium (Total)	7440-47-3	2.77	0.86 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	5.0 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 concentra- tions)	1330-20-7	0.32	30
Chromium (Total)	7440-47-3	2.77	0.86 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	5.0 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 of this Part. (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-Acetylami- nofluorene	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

Anthracene	120-12-7	0.059	3.4
Aramite	140-57-8	0.36	NA
<b>alpha</b> -BHC	319-84-6	0.00014	0.066
<b>beta</b> -BHC	319-85-7	0.00014	0.066
<b>delta</b> -BHC	319-86-8	0.023	0.066
<b>gamma</b> -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)fluor- anthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluor- anthene)	207-08-9	0.11	6.8
Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
Benzo(a)pyrene	50-32-8	0.061	3.4
Bromodichloromethane	75-27-4	0.35	15
Methyl bromide (Bromomethane)	74-83-9	0.11	15
4-Bromophenyl phenyl ether	101-55-3	0.055	15
n-Butyl alcohol	71-36-3	5.6	2.6
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 ( <b>alpha</b> and <b>gamma</b> 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-buta- diene	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-Chloro- isopropyl)ether	39638-32-9	0.055	7.2
p-Chloro-m-cresol	59-50-7	0.018	14
Chloromethane	74-87-3	0.19	30

(Methyl chloride)			
2-Chloronaphthalene	91-58-7	0.055	5.6
2-Chlorophenol	95-57-8	0.044	5.7
3-Chloropropylene	107-05-1	0.036	30
Chrysene	218-01-9	0.059	3.4
o-Cresol	95-48-7	0.11	5.6
m-Cresol	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
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-propylnitros- amine	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-Diphenyl- hydrazine	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
Heptachlor epoxide	1024-57-3	0.016	0.066
Hexachlorobenzene	118-74-1	0.055	10
Hexachlorobutadiene	87-68-3	0.055	5.6
Hexachlorocyclo- pentadiene	77-47-4	0.057	2.4
HxCDDs (All Hexa- chlorodibenzo-p- dioxins)	NA	0.000063	0.001
HxCDFs (All Hexa- chlorodibenzofurans)	NA	0.000063	0.001
Hexachloroethane	67-72-1	0.055	30
Hexachloropropylene	1888-71-7	0.035	30
Indeno (1,2,3-c,d)	193-39-5	0.0055	3.4

pyrene			
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-chloroaniline)	101-14-4	0.50	30
Methylene chloride	75-09-2	0.089	30
Methyl ethyl ketone	78-93-3	0.28	36
Methyl isobutyl ketone	108-10-1	0.14	33
Methyl methacrylate	80-62-6	0.14	160
Methyl methan-sulfonate	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-Nitrosomethyl-ethylamine	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
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 Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
Pentachloronitrobenzene	82-68-8	0.055	4.8
Pentachlorophenol	87-86-5	0.089	7.4

Phenacetin	62-44-2	0.081	16
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Phorate	298-02-2	0.021	4.6
Phthalic anhydride	85-44-9	0.055	NA
Pronamide	23950-58-5	0.093	1.5
Pyrene	129-00-0	0.067	8.2
Pyridine	110-86-1	0.014	16
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-Tetrachloro- benzene	95-94-3	0.055	14
TCDDs (All Tetra- chlorodibenzo-p- dioxins)	NA	0.000063	0.001
TCDFs (All Tetra- chlorodibenzofurans)	NA	0.000063	0.001
1,1,1,2-Tetrachloro- ethane	630-20-6	0.057	6.0
1,1,2,2-Tetrachloro- ethane	79-34-6	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
2,3,4,6-Tetrachloro- phenol	58-90-2	0.030	7.4
Toluene	108-88-3	0.080	10
Toxaphene	8001-35-2	0.0095	2.6
Bromoform (Tribromo- methane)	75-25-2	0.63	15
1,2,4-Trichloro- benzene	120-82-1	0.055	19
1,1,1-Trichloro- ethane	71-55-6	0.054	6.0
1,1,2-Trichloro- ethane	79-00-5	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0
Trichloromonofluoro- methane	75-69-4	0.020	30
2,4,5-Trichloro- phenol	95-95-4	0.18	7.4
2,4,6-Trichloro- phenol	88-06-2	0.035	7.4
1,2,3-Trichloro- propane	96-18-4	0.85	30
1,1,2-Trichloro- 1,2,2-trifluoro- ethane	76-13-1	0.057	30
tris(2,3-Dibromo- propyl) phosphate	126-72-7	0.11	NA
Vinyl chloride	75-01-4	0.27	6.0
Xylenes-mixed isomers	1330-20-7	0.32	30

(sum ~~or of~~ o-, m-,  
and p-xylene concen-  
trations)

Antimony	7440-36-0	1.9	2.1 mg/l TCLP
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Barium	7440-39-3	1.2	7.6 mg/l TCLP
Beryllium	7440-41-7	0.82	NA
Cadmium	7440-43-9	0.69	0.19 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.86 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	0.37 mg/l TCLP
Mercury	7439-97-6	0.15	0.025 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 mg/l TCLP
Selenium	7782-49-2	0.82	0.16 mg/l TCLP
Silver	7440-22-4	0.43	0.30 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	1330-20-7	0.32	30
(sum of o-, m-, and p-xylene concentra- tions)			
Lead	7439-92-1	0.69	0.37 mg/l TCLP

## K002

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

Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
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Lead	7439-92-1	0.69	0.37 mg/l TCLP
K003 Wastewater treatment sludge from the production of molybdate orange pigments.			
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Lead	7439-92-1	0.69	0.37 mg/l TCLP
K004 Wastewater treatment sludge from the production of zinc yellow pigments.			
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Lead	7439-92-1	0.69	0.37 mg/l TCLP
K005 Wastewater treatment sludge from the production of chrome green pigments.			
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Lead	7439-92-1	0.69	0.37 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	0.86 mg/l TCLP
Lead	7439-92-1	0.69	0.37 mg/l TCLP
K006 Wastewater treatment sludge from the production of chrome oxide green pigments (hydrated).			
Chromium (Total)	7440-47-3	2.77	0.86 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	0.86 mg/l TCLP
Lead	7439-92-1	0.69	0.37 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	0.86 mg/l TCLP
Lead	7439-92-1	0.69	0.37 mg/l TCLP

## K009

Distillation bottoms from the production of acetaldehyde from ethylene.

Chloroform	67-66-3	0.046	6.0
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## K010

Distillation side cuts from the production of acetaldehyde from ethylene.

Chloroform	67-66-3	0.046	6.0
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## 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)fluor-	205-99-2	0.11	6.8

anthene)			
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluor- anthene)	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	0.86 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 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
Hexachlorocyclo- pentadiene	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-Trichloro- propane	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-Trichloro- ethane	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-Tetrachloro- benzene	95-94-3	0.055	NA
Tetrachloroethylene	127-18-4	0.056	6.0
1,2,4-Trichloro- benzene	120-82-1	0.055	19
1,1,1-Trichloro- ethane	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-Tetrachloro- ethane	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	2.1 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	0.86 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 mg/l TCLP

## K023

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

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

## K024

Distillation bottoms from the production of phthalic anhydride from naphthalene.

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

## K025

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

NA	NA	LLEXT fb SSTRP fb CARBN; or CMBST	CMBST
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## K026

Stripping still tails from the production of methyl ethyl pyridines.

NA	NA	CMBST	CMBST
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## K027

Centrifuge and distillation residues from the toluene diisocyanate production.

NA	NA	CARBN; or CMBST	CMBST
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## 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-Dichloro- ethylene	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-Tetrachloro- ethane	630-20-6	0.057	6.0
1,1,2,2-Tetrachloro-	79-34-6	0.057	6.0

ethane			
Tetrachloroethylene	127-18-4	0.056	6.0
1,1,1-Trichloro-ethane	71-55-6	0.054	6.0
1,1,2-Trichloro-ethane	79-00-5	0.054	6.0
Cadmium	7440-43-9	0.69	NA
Chromium(Total)	7440-47-3	2.77	0.86 mg/l TCLP
Lead	7439-92-1	0.69	0.37 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 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-Trichloro-ethane	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-Tetrachloro-benzene	95-94-3	0.055	14
Tetrachloroethylene	127-18-4	0.056	6.0
1,2,4-Trichloro-benzene	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
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## K032

Wastewater treatment sludge from the production of chlordane.

Hexachlorocyclopentadiene	77-47-4	0.057	2.4
Chlordane ( $\alpha$ )	57-74-9	0.0033	0.26

and **gamma** isomers)

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
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K034

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

Hexachlorocyclopentadiene	77-47-4	0.057	2.4
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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
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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-Tetrachloro- benzene	95-94-3	0.055	14
1,2,4-Trichloro- benzene	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-Trichloro- phenol	95-95-4	0.18	7.4
2,4,6-Trichloro- phenol	88-06-2	0.035	7.4
2,3,4,6-Tetrachloro- phenol	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 Hexa- chlorodibenzo-p- dioxins)	NA	0.000063	0.001
HxCDFs (All Hexa- chlorodibenzofurans)	NA	0.000063	0.001
PeCDDs (All Penta- chlorodibenzo-p- dioxins)	NA	0.000063	0.001

PeCDFs (All Penta-chlorodibenzofurans)	NA	0.000035	0.001
TCDDs (All Tetra-chlorodibenzo-p-dioxins)	NA	0.000063	0.001
TCDFs (All Tetra-chlorodibenzofurans)	NA	0.000063	0.001
K044			
Wastewater treatment sludges from the manufacturing and processing of explosives.			
NA	NA	DEACT	DEACT
K045			
Spent carbon from the treatment of wastewater containing explosives.			
NA	NA	DEACT	DEACT
K046			
Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.			
Lead	7439-92-1	0.69	0.37 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	0.86 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	5.0 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	2218-01-9	0.059	3.4
2,4-Dimethylphenol	105-67-9	0.036	NA
Ethylbenzene	100-41-4	0.057	10
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyrene	129-00-0	0.067	8.2
Toluene	108-88-3	0.080	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentra- tions)	1330-20-7	0.32	30
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	5.0 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	0.86 mg/l TCLP
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	5.0 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)	117-81-7	0.28	28

phthalate			
Chrysene	2218-01-9	0.059	3.4
Di-n-butyl phthalate	105-67-9	0.057	28
Ethylbenzene	100-41-4	0.057	10
Fluorene	86-73-7	0.059	NA
Naphthalene	91-20-3	0.059	5.6
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	1330-20-7	0.32	30
(sum of o-, m-, and p-xylene concentrations)			
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	5.0 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	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)			
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	1330-20-7	0.32	30
(sum of o-, m-, and p-xylene concentrations)			
Chromium (Total)	7440-47-3	2.77	0.86 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	5.0 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	2.1 mg/l TCLP
Arsenic	7440-38-2	NA	5.0 mg/l TCLP
Barium	7440-39-3	NA	7.6 mg/l TCLP
Beryllium	7440-41-7	NA	0.014 mg/l TCLP
Cadmium	7440-43-9	0.69	0.19 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Lead	7439-92-1	0.69	0.37 mg/l TCLP
Mercury	7439-97-6	NA	0.025 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 mg/l TCLP
Selenium	7782-49-2	NA	0.16 mg/l TCLP
Silver	7440-22-4	NA	0.30 mg/l TCLP
Thallium	7440-28-0	NA	0.078 mg/l TCLP
Zinc	7440-66-6	NA	5.3 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	0.86 mg/l TCLP
Lead	7439-92-1	0.69	0.37 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	0.19 mg/l TCLP
Lead	7439-92-1	0.69	0.37 mg/l TCLP

K069

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

NA	NA	NA	RLEAD
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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
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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
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K071

All K071 wastewaters.

Mercury	7439-97-6	0.15	NA
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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-Trichloro- ethane	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 diphenylamine)	86-30-6	0.92	13

Nitrobenzene	98-95-3	0.068	14
Phenol	108-95-2	0.039	6.2
Nickel	7440-02-0	3.98	5.0 mg/l TCLP

## K084

Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.

Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
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## 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-Tetrachloro- benzene	95-94-3	0.055	14
1,2,4-Trichloro- benzene	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-Trichloro- ethane	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 concentra- tions)	1330-20-7	0.32	30
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Lead	7439-92-1	0.69	0.37 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 concentra- tions)	1330-20-7	0.32	30
Lead	7439-92-1	0.69	0.37 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)anthracen e	53-70-3	0.055	8.2

Fluoranthene	206-44-0	0.068	3.4
Indeno(1,2,3-c,d)pyrene	193-39-5	0.0055	3.4
Phenanthrene	85-01-8	0.059	5.6
Pyrene	129-00-0	0.067	8.2
Antimony	7440-36-0	1.9	2.1 mg/l TCLP
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Barium	7440-39-3	1.2	7.6 mg/l TCLP
Beryllium	7440-41-7	0.82	0.014 mg/l TCLP
Cadmium	7440-43-9	0.69	0.19 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Lead	7439-92-1	0.69	0.37 mg/l TCLP
Mercury	7439-97-6	0.15	0.025 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 mg/l TCLP
Selenium	7782-49-2	0.82	0.16 mg/l TCLP
Silver	7440-22-4	0.43	0.30 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	48 mg/l TCLP

## K093

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

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

## K094

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

Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28
Phthalic anhydride (measured as	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 $\gamma$ 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
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
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## K099

Untreated wastewater from the production of 2,4-D.

2,4-Dichlorophenoxyacetic acid	94-75-7	0.72	10
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HxCDDs (All Hexa-chlorodibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexa-chlorodibenzofurans)	NA	0.000063	0.001
PeCDDs (All Penta-chlorodibenzo-p-dioxins)	NA	0.000063	0.001
PeCDFs (All Penta-chlorodibenzofurans)	NA	0.000035	0.001
TCDDs (All Tetra-chlorodibenzo-p-dioxins)	NA	0.000063	0.001
TCDFs (All Tetra-chlorodibenzofurans)	NA	0.000063	0.001

## K100

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

Cadmium	7440-43-9	0.69	0.19 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Lead	7439-92-1	0.69	0.37 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
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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-Trichloro-phenol	95-95-4	0.18	7.4
2,4,6-Trichloro-phenol	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
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## 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
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## 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
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## K106

All K106 wastewaters.

Mercury	7439-97-6	0.15	NA
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K107

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

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

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	CMBST
		CHOXD fb	
		CARBN; or	
		BIODG fb	
		CARBN	

K109

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

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

K110

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

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

K111

Product washwaters from the production of dinitrotoluene via nitration of toluene

2,4-Dinitrotoluene	121-1-1	0.32	140
2,6-Dinitrotoluene	606-20-2	0.55	28

K112

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

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

## CARBN

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
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K114

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

NA	NA	CARBN; or CMBST	CMBST
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K115

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

Nickel	7440-02-0	3.98	5.0 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
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K117

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

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

K118

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

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

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 ethylenebis- dithiocarbamic 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 ethylenebis- dithiocarbamic acid and its salts.			
NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
K131 Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide.			
Methyl bromide (Bromomethane)	74-83-9	0.11	15
K132 Spent absorbent and wastewater separator solids from the production of methyl bromide.			
Methyl bromide (Bromomethane)	74-83-9	0.11	15
K136 Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.			
Methyl bromide (Bromomethane)	74-83-9	0.11	15
Chloroform	67-66-3	0.046	6.0
Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
K141			

Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke or the recovery of coke 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	205-99-2	0.11	6.8
(difficult to distinguish from benzo(k)fluoranthene)			
Benzo(k)fluoranthene	207-08-9	0.11	6.8
(difficult to distinguish from benzo(b)fluoranthene)			
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	205-99-2	0.11	6.8
(difficult to distinguish from benzo(k)fluoranthene)			
Benzo(k)fluoranthene	207-08-9	0.11	6.8
(difficult to distinguish from benzo(b)fluoranthene)			
Chrysene	218-01-9	0.059	3.4
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
Ideno(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
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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)fluor- anthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluor- anthene)	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)fluor- anthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluor- anthene)	207-08-9	0.11	6.8
Chrysene	218-01-9	0.059	3.4
Dibenz(a,h)anthra- cene	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)anthra- cene	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	205-99-2	0.11	6.8

(difficult to distinguish from benzo(k)fluoranthene)			
Benzo(k)fluoranthene	207-08-9	0.11	6.8
(difficult to distinguish from benzo(b)fluoranthene)			
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	205-99-2	0.11	6.8
(difficult to distinguish from benzo(k)fluoranthene)			
Benzo(k)fluoranthene	207-08-9	0.11	6.8
(difficult to distinguish from benzo(b)fluoranthene)			
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-Tetrachloro- benzene	95-94-3	0.055	14
1,1,2,2- Tetra- chloroethane	79-34-5	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
1,2,4-Trichloro- benzene	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-Tetrachloro- benzene	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. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propyl-n-butylcarbamate.)<sup>10</sup>

Acetonitrile	75-05-8	5.6	38
Acetophenone	96-86-2	0.010	9.7
Aniline	62-53-3	0.81	14
Benomyl	17804-35-2	0.056	1.4
Benzene	71-43-2	0.14	10
Carbaryl	63-25-21	0.006	0.14
Carbenzadim	10605-21-7	0.056	1.4

Carbofuran	1563-66-2	0.006	0.14
Carbosulfan	55285-14-8	0.028	1.4
Chlorobenzene	108-90-7	0.057	6.0
Chloroform	67-66-3	0.046	6.0
o-Dichlorobenzene	95-50-1	0.088	6.0
Methomyl	16752-77-5	0.028	0.14
Methylene chloride	75-09-2	0.089	30
Methyl ethyl ketone	78-93-3	0.28	36
Naphthalene	91-20-3	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyridine	110-86-1	0.014	16
Toluene	108-88-3	0.080	10
Triethylamine	121-44-8	0.081	1.5

## K157

Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propyl-n-butylcarbamate.)<sup>10</sup>

Carbon tetrachloride	56-23-5	0.057	6.0
Chloroform	67-66-3	0.046	6.0
Chloromethane	74-87-3	0.19	30
Methomyl	16752-77-5	0.028	0.14
Methylene chloride	75-09-2	0.089	30
Methyl ethyl ketone	78-93-3	0.28	36
o-Phenylenediamine	95-54-5	0.056	5.6
Pyridine	110-86-1	0.014	16
Triethylamine	121-44-8	0.081	1.5

## K158

Baghouse dusts and filter/separation solids from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propyl-n-butylcarbamate.)<sup>10</sup>

Benomyl	17804-35-2	0.056	1.4
Benzene	71-43-2	0.14	10
Carbenzadim	10605-21-7	0.056	1.4
Carbofuran	1563-66-2	0.006	0.14
Carbosulfan	55285-14-8	0.028	1.4
Chloroform	67-66-3	0.046	6.0
Methylene chloride	75-09-2	0.089	30
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	2008-41-5	0.042	1.4
EPTC (Eptam)	759-94-4	0.042	1.4
Molinate	2212-67-1	0.042	1.4
Pebulate	1114-71-2	0.042	1.4
Vernolate	1929-77-7	0.042	1.4

## K161

Purification solids (including filtration, evaporation, and centrifugation solids), baghouse dust and floor sweepings from the production of dithiocarbamate acids and their salts.<sup>10</sup>

Antimony	7440-36-0	1.9	2.1 mg/l TCLP
Arsenic	7440-38-2	1.9	5.0 mg/l TCLP
Carbon disulfide	75-15-0	3.8	4.8 mg/l TCLP
Dithiocarbamates (total)	NA	0.028	28
Lead	7439-92-1	0.69	0.37 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 mg/l TCLP
Selenium	7782-49-2	0.82	0.16 mg/l TCLP

## P001

Warfarin, & salts, when present at concentrations greater than 0.3%

Warfarin	81-81-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
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## P002

1-Acetyl-2-thiourea

1-Acetyl-2-thiourea	591-08-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
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## P003

Acrolein

Acrolein	107-02-8	0.29	CMBST
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## P004

Aldrin

Aldrin	309-00-2	0.021	0.066
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## P005

Allyl alcohol

Allyl alcohol	107-18-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
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## P006

Aluminum phosphide

Aluminum phosphide	20859-73-8	CHOXD;	CHOXD;
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			CHRED; or CMBST	CHRED; or CMBST
P007	5-Aminomethyl-3-isoxazolol			
	5-Aminomethyl-3- isoxazolol	2763-96-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P008	4-Aminopyridine			
	4-Aminopyridine	504-24-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P009	Ammonium picrate			
	Ammonium picrate	131-74-8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P010	Arsenic acid			
	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
P011	Arsenic pentoxide			
	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
P012	Arsenic trioxide			
	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
P013	Barium cyanide			
	Barium	7440-39-3	NA	7.6 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
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-Chloropropio- nitrile	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-	131-89-5	(WETOX or		CMBST

dinitrophenol			CHOXD) fb CARBN; or 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- pyrazinylphosphoro- thioate	297-97-2		CARBN; or CMBST	CMBST
P041 Diethyl-p-nitrophenyl phosphate Diethyl-p- nitrophenyl phosphate	311-45-5		CARBN; or CMBST	CMBST
P042 Epinephrine Epinephrine	51-43-4		(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P043 Diisopropylfluorophosphate (DFP) Diisopropylfluoro- phosphate (DFP)	55-91-4		CARBN; or CMBST	CMBST
P044 Dimethoate Dimethoate	60-51-5		CARBN; or CMBST	CMBST
P045				

Thiofanox				
Thiofanox	39196-18-4	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
P046				
$\alpha,\alpha$ -Dimethylphenethylamine				
$\alpha,\alpha$ -Di- methylphenethylamine	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)	16964-48-8	35	ADGAS fb NEUTR
P057	Fluoroacetamide			
	Fluoroacetamide	640-19-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P058	Fluoroacetic acid, sodium salt			
	Fluoroacetic acid, sodium salt	62-74-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P059	Heptachlor			
	Heptachlor	76-44-8	0.0012	0.066
	Heptachlor epoxide	1024-57-3	0.016	0.066
P060	Isodrin			
	Isodrin	465-73-6	0.021	0.066
P062	Hexaethyl tetraphosphate			
	Hexaethyl tetra- phosphate	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
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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
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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
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P065

All P065 (mercury fulminate) wastewaters.

Mercury	7439-97-6	0.15	NA
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P066

Methomyl

Methomyl	16752-77-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
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P067

2-Methyl-aziridine

2-Methyl-aziridine	75-55-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
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P068

Methyl hydrazine

Methyl hydrazine	60-34-4	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED, or CMBST
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P069

2-Methylactonitrile

2-Methylactonitrile	75-86-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
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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-thio- urea	86-88-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
P073				
Nickel carbonyl				
Nickel	7440-02-0	3.98	5.0 mg/l TCLP	
P074				
Nickel cyanide				
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590	
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30	
Nickel	7440-02-0	3.98	5.0 mg/l TCLP	
P075				
Nicotine and salts				
Nicotine and salts	54-11-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
P076				
Nitric oxide				
Nitric oxide	10102-43-9	ADGAS	ADGAS	
P077				
p-Nitroaniline				
p-Nitroaniline	100-01-6	0.028	28	
P078				
Nitrogen dioxide				
Nitrogen dioxide	10102-44-0	ADGAS	ADGAS	
P081				
Nitroglycerin				
Nitroglycerin	55-63-0	CHOXD;	CHOXD;	

			CHRED; CARBN; BIODG or CMBST	CHRED; or CMBST
P082				
N-Nitrosodimethylamine				
N-Nitrosodimethyl- amine	62-75-9	0.40		2.3
P084				
N-Nitrosomethylvinylamine				
N-Nitrosomethyl- vinylamine	4549-40-0		(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P085				
Octamethylpyrophosphoramid				
Octamethylpyro- phosphoramid	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
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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
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P092

All P092 (phenyl mercuric acetate) wastewaters.

Mercury	7439-97-6	0.15	NA
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P093

Phenylthiourea

Phenylthiourea	103-85-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
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P094

Phorate

Phorate	298-02-2	0.021	4.6
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P095

Phosgene

Phosgene	75-44-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
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P096

Phosphine

Phosphine	7803-51-2	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
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P097

Famphur

Famphur	52-85-7	0.017	15
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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
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Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30
Silver	7440-22-4	0.43	0.30 mg/l TCLP
P101			
Ethyl cyanide (Propanenitrile)			
Ethyl cyanide	107-12-0	0.24	360
(Propanenitrile)			
P102			
Propargyl alcohol			
Propargyl alcohol	107-19-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P103			
Selenourea			
Selenium	7782-49-2	0.82	0.16 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	0.30 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			
Tetraethyldithio- pyrophosphate	3689-24-5	CARBN; or CMBST	CMBST

P110 Tetraethyl lead Lead	7439-92-1	0.69	0.37 mg/l TCLP
P111 Tetraethylpyrophosphate Tetraethylpyro- phosphate	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	0.16 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 Trichloromethane- thiol	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>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30
P122			
Zinc phosphide Zn <sub>3</sub> P <sub>2</sub> , when present at concentrations greater than 10%			
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	0.14
P128			
Mexacarbate <sup>10</sup>			
Mexacarbate	315-18-4	0.056	1.4
P185			
Tirpate <sup>10</sup>			
Tirpate	26419-73-8	0.056	0.28
P188			
Physostigimine salicylate <sup>10</sup>			
Physostigimine salicylate	57-64-7	0.056	1.4
P189			
Carbosulfan <sup>10</sup>			
Carbosulfan	55285-14-8	0.028	1.4
P190			
Metolcarb <sup>10</sup>			
Metolcarb	1129-41-5	0.056	1.4
P191			
Dimetilan <sup>10</sup>			
Dimetilan	644-64-4	0.056	1.4
P192			
Isolan <sup>10</sup>			

Isolan	119-38-0	0.056	1.4
P194 Oxamyl <sup>10</sup>			
Oxamyl	23135-22-0	0.056	0.28
P196 Manganese dimethyldithiocarbamates (total) <sup>10</sup>			
Dithiocarbamates (total)	NA	0.028	28
P197 Formparanate <sup>10</sup>			
Formparanate	17702-57-7	0.056	1.4
P198 Formetanate hydrochloride <sup>10</sup>			
Formetanate hydro- chloride	23422-53-9	0.056	1.4
P199 Methiocarb <sup>10</sup>			
Methiocarb	2032-65-7	0.056	1.4
P201 Promecarb <sup>10</sup>			
Promecarb	2631-37-0	0.056	1.4
P202 m-Cumenyl methylcarbamate <sup>10</sup>			
m-Cumenyl methyl- carbamate	64-00-6	0.056	1.4
P203 Aldicarb sulfone <sup>10</sup>			
Aldicarb sulfone	1646-88-4	0.056	0.28
P204 Physostigmine <sup>10</sup>			
Physostigmine	57-47-6	0.056	1.4
P205 Ziram <sup>10</sup>			
Dithiocarbamates (total)	NA	0.028	28
U001 Acetaldehyde			
Acetaldehyde	75-07-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

U002				
Acetone				
Acetone	67-64-1	0.28		160
U003				
Acetonitrile				
Acetonitrile	75-05-8	5.6		CMBST
Acetonitrile; alternate <sup>6</sup> standard for nonwastewaters only	75-05-8	NA		38
U004				
Acetophenone				
Acetophenone	98-86-2	0.010		9.7
U005				
2-Acetylaminofluorene				
2- Acetylaminofluorene	53-96-3	0.059		140
U006				
Acetyl chloride				
Acetyl chloride	75-36-5	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U007				
Acrylamide				
Acrylamide	79-06-1	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U008				
Acrylic acid				
Acrylic acid	79-10-7	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U009				
Acrylonitrile				
Acrylonitrile	107-13-1	0.24		84
U010				
Mitomycin C				
Mitomycin C	50-07-7	(WETOX or CHOXD) fb CARBN; or		CMBST

			CMBST	
U011				
Amitrole				
Amitrole	61-82-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U012				
Aniline				
Aniline	62-53-3	0.81	14	
U014				
Auramine				
Auramine	492-80-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
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	98-09-9	(WETOX or	CMBST	

chloride			CHOXD) fb CARBN; or 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-Chloro- isopropyl)ether	39638-32-9		0.055	7.2
U028				
bis(2-Ethylhexyl)phthalate				
bis(2-Ethylhexyl)- phthalate	117-81-7		0.28	28
U029				
Methyl bromide (Bromomethane)				

Methyl bromide (Bromomethane)	74-83-9	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	0.86 mg/l TCLP
U033			
Carbon oxyfluoride			
Carbon oxyfluoride	353-50-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U034			
Trichloroacetaldehyde (Chloral)			
Trichloroacet- aldehyde (Chloral)	75-87-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U035			
Chlorambucil			
Chlorambucil	305-03-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U036			
Chlordane			
Chlordane ( $\alpha$ and $\gamma$ isomers)	57-74-9	0.0033	0.26
U037			
Chlorobenzene			
Chlorobenzene	108-90-7	0.057	6.0
U038			
Chlorobenzilate			
Chlorobenzilate	510-15-6	0.10	CMBST
U039			

p-Chloro-m-cresol				
p-Chloro-m-cresol	59-50-7	0.018		14
U041				
Epichlorohydrin (1-Chloro-2,3-epoxypropane)				
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	106-89-8	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U042				
2-Chloroethyl vinyl ether				
2-Chloroethyl vinyl ether	110-75-8	0.062		CMBST
U043				
Vinyl chloride				
Vinyl chloride	75-01-4	0.27		6.0
U044				
Chloroform				
Chloroform	67-66-3	0.046		6.0
U045				
Chloromethane (Methyl chloride)				
Chloromethane (Methyl chloride)	74-87-3	0.19		30
U046				
Chloromethyl methyl ether				
Chloromethyl methyl ether	107-30-2	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U047				
2-Chloronaphthalene				
2-Chloronaphthalene	91-58-7	0.055		5.6
U048				
2-Chlorophenol				
2-Chlorophenol	95-57-8	0.044		5.7
U049				
4-Chloro-o-toluidine hydrochloride				
4-Chloro-o-toluidine hydrochloride	3165-93-3	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U050				
Chrysene				

Chrysene	218-01-9	0.059	3.4
U051			
Creosote			
Naphthalene	91-20-3	0.059	5.6
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	0.37 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-	96-12-8	0.11		15
chloropropane				
U067				
Ethylene dibromide (1,2-Dibromoethane)				
Ethylene dibromide	106-93-4	0.028		15
(1,2-Dibromoethane)				
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'-Dichloro-	91-94-1	(WETOX or		CMBST
benzidine		CHOXD) fb		
		CARBN; or		
		CMBST		
U074				
1,4-Dichloro-2-butene				
cis-1,4-Dichloro-2-	1476-11-5	(WETOX or		CMBST
butene		CHOXD) fb		
		CARBN; or		
		CMBST		
trans-1,4-Dichloro-	764-41-0	(WETOX or		CMBST
2-butene		CHOXD) fb		
		CARBN; or		
		CMBST		
U075				
Dichlorodifluoromethane				
Dichlorodifluoro-	75-71-8	0.23		7.2

## methane

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-Dichloro-ethylene	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-Dichloro-propylene	10061-01-5	0.036		18
trans-1,3-Dichloro-propylene	10061-02-6	0.036		18
U085				
1,2:3,4-Diepoxybutane				
1,2:3,4-Diepoxybutane	1464-53-5	(WETOX or CHOXD) CARBN; or CMBST	fb	CMBST
U086				
N,N'-Diethylhydrazine				
N,N'-Diethylhydrazine	1615-80-1	CHOXD; CHRED;		CHOXD; CHRED; or

			CARBN; BIODG; or CMBST	CMBST
U087				
O,O-Diethyl-S-methyldithiophosphate				
O,O-Diethyl-S-	3288-58-2		CARBN; or CMBST	CMBST
methyldithio-				
phosphate				
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'-	119-90-4		(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
Dimethoxybenzidine				
U092				
Dimethylamine				
Dimethylamine	124-40-3		(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U093				
p-Dimethylaminoazobenzene				
p-Dimethyl-	60-11-7	0.13		CMBST
aminoazobenzene				
U094				
7,12-Dimethylbenz(a)anthracene				
7,12-Dimethyl-	57-97-6		(WETOX or CHOXD) fb CARBN; or	CMBST
benz(a)anthracene				

			CMBST	
U095				
3,3'-Dimethylbenzidine				
3,3'-Dimethyl-	119-93-7	(WETOX or	CMBST	
benzidine		CHOXD) fb		
		CARBN; or		
		CMBST		
U096				
alpha, alpha-Dimethyl benzyl hydroperoxide				
alpha, alpha-	80-15-9	CHOXD;	CHOXD;	
Dimethyl benzyl		CHRED;	CHRED; or	
hydroperoxide		CARBN;	CMBST	
		BIODG; or		
		CMBST		
U097				
Dimethylcarbamoyl chloride				
Dimethylcarbamoyl	79-44-7	(WETOX or	CMBST	
chloride		CHOXD) fb		
		CARBN; or		
		CMBST		
U098				
1,1-Dimethylhydrazine				
1,1-Dimethyl-	57-14-7	CHOXD;	CHOXD;	
hydrazine		CHRED;	CHRED; or	
		CARBN;	CMBST	
		BIODG; or		
		CMBST		
U099				
1,2-Dimethylhydrazine				
1,2-Dimethyl-	540-73-8	CHOXD;	CHOXD;	
hydrazine		CHRED;	CHRED; or	
		CARBN;	CMBST	
		BIODG; 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;	CHOXD;	

			CHRED; CARBN; BIODG; or CMBST	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	NA		170
U109				
1,2-Diphenylhydrazine				
1,2-Diphenyl- hydrazine	122-66-7	CHOXD; CHRED; CARBN; BIODG; or CMBST		CHOXD; CHRED; or CMBST
1,2-Diphenyl- hydrazine; 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-propylnitros- amine	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				
Ethylenebisdithio- carbamic 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			
Trichloromonofluoro- methane	75-69-4	0.020	30
U122 Formaldehyde			
Formaldehyde	50-00-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U123 Formic acid			
Formic acid	64-18-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U124 Furan			
Furan	110-00-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U125 Furfural			
Furfural	98-01-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U126 Glycidylaldehyde			
Glycidylaldehyde	765-34-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U127 Hexachlorobenzene			
Hexachlorobenzene	118-74-1	0.055	10
U128 Hexachlorobutadiene			
Hexachlorobutadiene	87-68-3	0.055	5.6
U129 Lindane			

	$\alpha$ -BHC	319-84-6	0.00014	0.066
	$\beta$ -BHC	319-85-7	0.00014	0.066
	$\delta$ -BHC	319-86-8	0.023	0.066
	$\gamma$ -BHC (Lindane)	58-89-9	0.0017	0.066
U130	Hexachlorocyclopentadiene			
	Hexachlorocyclopentadiene	77-47-4	0.057	2.4
U131	Hexachloroethane			
	Hexachloroethane	67-72-1	0.055	30
U132	Hexachlorophene			
	Hexachlorophene	70-30-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U133	Hydrazine			
	Hydrazine	302-01-2	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U134	Hydrogen fluoride			
	Fluoride (measured in wastewaters only)	16964-48-8	35	ADGAS fb NEUTR; or NEUTR
U135	Hydrogen sulfide			
	Hydrogen sulfide	7783-06-4	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
U136	Cacodylic acid			
	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
U137	Indeno(1,2,3-c,d)pyrene			
	Indeno(1,2,3-c,d)pyrene	193-39-5	0.0055	3.4

U138				
Iodomethane				
Iodomethane	74-88-4	0.19	65	
U140				
Isobutyl alcohol				
Isobutyl alcohol	78-83-1	5.6	170	
U141				
Isosafrole				
Isosafrole	120-58-1	0.081	2.6	
U142				
Kepone				
Kepone	143-50-8	0.0011	0.13	
U143				
Lasiocarpine				
Lasiocarpine	303-34-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U144				
Lead acetate				
Lead	7439-92-1	0.69	0.37 mg/l TCLP	
U145				
Lead phosphate				
Lead	7439-92-1	0.69	0.37 mg/l TCLP	
U146				
Lead subacetate				
Lead	7439-92-1	0.69	0.37 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				
Element 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 chloro- carbonate	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-nitrosoguanidine	70-25-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U164 Methylthiouracil Methylthiouracil	56-04-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U165 Naphthalene Naphthalene	91-20-3	0.059	5.6
U166 1,4-Naphthoquinone 1,4-Naphthoquinone	130-15-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U167 1-Naphthylamine 1-Naphthylamine	134-32-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U168 2-Naphthylamine 2-Naphthylamine	91-59-8	0.52	CMBST
U169 Nitrobenzene Nitrobenzene	98-95-3	0.068	14
U170 p-Nitrophenol p-Nitrophenol	100-02-7	0.12	29
U171 2-Nitropropane 2-Nitropropane	79-46-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U172 N-Nitrosodi-n-butylamine N-Nitrosodi-n-butyl-	924-16-3	0.40	17

## amine

U173	N-Nitrosodiethanolamine			
	N-Nitroso- diethanolamine	1116-54-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U174	N-Nitrosodiethylamine			
	N-Nitrosodiethyl- amine	55-18-5	0.40	28
U176	N-Nitroso-N-ethylurea			
	N-Nitroso-N-ethyl- urea	759-73-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U177	N-Nitroso-N-methylurea			
	N-Nitroso-N-methyl- urea	684-93-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U178	N-Nitroso-N-methylurethane			
	N-Nitroso-N-methyl- urethane	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				
Pentachloronitro- benzene	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	85-44-9	0.055		28

## Terephthalic acid)

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

U202				
Saccharin and salts				
Saccharin	81-07-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U203				
Safrole				
Safrole	94-59-7	0.081	22	
U204				
Selenium dioxide				
Selenium	7782-49-2	0.82	0.16 mg/l TCLP	
U205				
Selenium sulfide				
Selenium	7782-49-2	0.82	0.16 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-Tetrachloro- benzene	95-94-3	0.055	14	
U208				
1,1,1,2-Tetrachloroethane				
1,1,1,2-Tetrachloro- ethane	630-20-6	0.057	6.0	
U209				
1,1,2,2-Tetrachloroethane				
1,1,2,2-Tetrachloro- ethane	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 hydro-	636-21-5	(WETOX or	CMBST

chloride			CHOXD) fb CARBN; or CMBST	
U223				
Toluene diisocyanate				
Toluene diisocyanate	26471-62-5		CARBN; or CMBST	CMBST
U225				
Bromoform (Tribromomethane)				
Bromoform (Tribromo- methane)	75-25-2		0.63	15
U226				
1,1,1-Trichloroethane				
1,1,1-Trichloro- ethane	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-Trinitro- benzene	99-35-4		(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U235				
tris-(2,3-Dibromopropyl)-phosphate				
tris-(2,3-Dibromo- propyl)-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-Dichlorophenoxyacetic acid)	94-75-7	0.72	10
2,4-D (2,4-Dichlorophenoxyacetic acid) salts and esters	NA	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U243			
Hexachloropropylene			
Hexachloropropylene	1888-71-7	0.035	30
U244			
Thiram			
Thiram	137-26-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U246			
Cyanogen bromide			
Cyanogen bromide	506-68-3	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
U247			
Methoxychlor			
Methoxychlor	72-43-5	0.25	0.18
U248			
Warfarin, & salts, when present at concentrations of 0.3% or less			
Warfarin	81-81-2	(WETOX or CHOXD) fb CARBN; or	CMBST

## CMBST

U249				
Zinc phosphide, $Zn_3P_2$ , when present at concentrations of 10% 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	1.4	
U278				
Bendiocarb <sup>10</sup>				
Bendiocarb	22781-23-3	0.056	1.4	
U279				
Carbaryl <sup>10</sup>				
Carbaryl	63-25-2	0.006	0.14	
U280				
Barban <sup>10</sup>				
Barban	101-27-9	0.056	1.4	
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		1.4
U367				
Carbofuran phenol <sup>10</sup>				
Carbofuran phenol	1563-38-8	0.056		1.4
U372				
Carbendazim <sup>10</sup>				
Carbendazim	10605-21-7	0.056		1.4
U373				
Propham <sup>10</sup>				
Propham	122-42-9	0.056		1.4
U387				
Prosulfocarb <sup>10</sup>				
Prosulfocarb	52888-80-9	0.042		1.4
U389				
Triallate <sup>10</sup>				
Triallate	2303-17-5	0.042		1.4
U394				
A2213 <sup>10</sup>				
A2213	30558-43-1	0.042		1.4
U395				
Diethylene glycol, dicarbamate <sup>10</sup>				
Diethylene glycol, dicarbamate	5952-26-1	0.056		1.4
U404				
Triethylamine <sup>10</sup>				
Triethylamine	101-44-8	0.081		1.5
U409				
Thiophanate-methyl <sup>10</sup>				
Thiophanate-methyl	23564-05-8	0.056		1.4
U410				
Thiodicarb <sup>10</sup>				
Thiodicarb	59669-26-0	0.019		1.4
U411				
Propoxur <sup>10</sup>				
Propoxur	114-26-1	0.056		1.4

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 waste code 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 35 Ill. Adm. Code 728. Table C, "Technology Codes and Descriptions of Technology-Based Standards". "fb" inserted between waste codes denotes "followed by", so that the first-listed treatment is followed by the second-listed treatment. ";" 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 upon incineration in units operated in accordance with the technical requirements of 35 Ill. Adm. Code 724. Subpart O or 35 Ill. Adm. Code 725. Subpart O or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in 35 Ill. Adm. Code 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 9010 or 9012, found in "Test Methods for Evaluating Solid Waste, Physical or Chemical Methods", USEPA Publication SW-846, as incorporated by reference in 35 Ill. Adm. Code 720.111, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.
- 8 These wastes, when rendered nonhazardous 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 nonhazardous 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 This footnote corresponds with note 10 to the table to 40 CFR 268.40, which has already expired by its own terms. This statement maintains structural consistency with the federal regulations.
- 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 35 Ill. Adm. Code 724.Subpart O, or (3) combustion units operating under 35 Ill. Adm. Code 725.Subpart O.

**BOARD NOTE: Derived from table to 40 CFR 268.40 (1997).**

NA means not applicable.

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 728.Table U Universal Treatment Standards (UTS)

Regulated Con- stituent-Common Name	CAS <sup>1</sup> No.	Wastewater Standard Concentration (in mg/l <sup>2</sup> )	Nonwastewater Standard Concentration (in mg/kg <sup>3</sup> unless noted as "mg/l TCLP")
A2213 <sup>6</sup>	30558-43-1	0.042	1.4
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-Acetylaminofluor- ene	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
Aldicarb sulfone <sup>6</sup>	1646-88-4	0.056	0.28
Aldrin	309-00-2	0.021	0.066
4-Aminobiphenyl	92-67-1	0.13	NA
Aniline	62-53-3	0.81	14

Anthracene	120-12-7	0.059	3.4
Aramite	140-57-8	0.36	NA
<b>alpha</b> -BHC	319-84-6	0.00014	0.066
<b>beta</b> -BHC	319-85-7	0.00014	0.066
<b>delta</b> -BHC	319-86-8	0.023	0.066
<b>gamma</b> -BHC	58-89-9	0.0017	0.066
Barban <sup>6</sup>	101-27-9	0.056	1.4
Bendiocarb <sup>6</sup>	22781-23-3	0.056	1.4
Bendiocarb phenol <sup>6</sup>	22961-82-6	0.056	1.4
Benomyl <sup>6</sup>	17804-35-2	0.056	1.4
Benz(a)anthracene	56-55-3	0.059	3.4
Benzal chloride	98-87-3	0.055	6.0
Benzene	71-43-2	0.14	10
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene )	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene )	207-08-9	0.11	6.8
Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
Benzo(a)pyrene	50-32-8	0.061	3.4
Bromodichloromethane	75-27-4	0.35	15
Methyl bromide (Bromomethane)	74-83-9	0.11	15
4-Bromophenyl phenyl ether	101-55-3	0.055	15
n-Butyl alcohol	71-36-3	5.6	2.6
Butylate <sup>6</sup>	2008-41-5	0.042	1.4
Butyl benzyl phthalate	85-68-7	0.017	28
2-sec-Butyl-4,6- dinitrophenol (Dinoseb)	88-85-7	0.066	2.5
Carbaryl <sup>6</sup>	63-25-2	0.006	0.14
Carbenzadim <sup>6</sup>	10605-21-7	0.056	1.4
Carbofuran <sup>6</sup>	1563-66-2	0.006	0.14
Carbofuran phenol <sup>6</sup>	1563-38-8	0.056	1.4
Carbon disulfide	75-15-0	3.8	4.8 mg/l TCLP
Carbon tetrachloride	56-23-5	0.057	6.0
Carbosulfan <sup>6</sup>	55285-14-8	0.028	1.4
Chlordane ( <b>alpha</b> and <b>gamma</b> isomers)	57-74-9	0.0033	0.26
p-Chloroaniline	106-47-8	0.46	16
Chlorobenzene	108-90-7	0.057	6.0
Chlorobenzilate	510-15-6	0.10	NA
2-Chloro-1,3- butadiene	126-99-8	0.057	0.28

Chlorodibromomethane	124-48-1	0.057	15
Chloroethane	75-00-3	0.27	6.0
bis(2-Chloro-ethoxy)methane	111-91-1	0.036	7.2
bis(2-Chloro-ethyl)ether	111-44-4	0.033	6.0
2-Chloroethyl vinyl ether	110-75-8	0.062	NA
Chloroform	67-66-3	0.046	6.0
bis(2-Chloroisopropyl)ether	39638-32-9	0.055	7.2
p-Chloro-m-cresol	59-50-7	0.018	14
Chloromethane (Methyl chloride)	74-87-3	0.19	30
2-Chloronaphthalene	91-58-7	0.055	5.6
2-Chlorophenol	95-57-8	0.044	5.7
3-Chloropropylene	107-05-1	0.036	30
Chrysene	218-01-9	0.059	3.4
o-Cresol	95-48-7	0.11	5.6
m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
m-Cumenyl methyl-carbamate <sup>6</sup>	64-00-6	0.056	1.4
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-chloropropane	96-12-8	0.11	15
1,2-Dibromoethane/Ethylene dibromide	106-93-4	0.028	15
Dibromomethane	74-95-3	0.11	15
m-Dichlorobenzene	541-73-1	0.036	6.0
o-Dichlorobenzene	95-50-1	0.088	6.0
p-Dichlorobenzene	106-46-7	0.090	6.0
Dichlorodifluoromethane	75-71-8	0.23	7.2
1,1-Dichloroethane	75-34-3	0.059	6.0
1,2-Dichloroethane	107-06-2	0.21	6.0
1,1-Dichloroethylene	75-35-4	0.025	6.0

trans-1,2-Dichloro-ethylene	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-Dichloro-phenoxyacetic acid/2,4-D	94-75-7	0.72	10
1,2-Dichloropropane	78-87-5	0.85	18
cis-1,3-Dichloro-propylene	10061-01-5	0.036	18
trans-1,3-Dichloro-propylene	10061-02-6	0.036	18
Dieldrin	60-57-1	0.017	0.13
Diethylene glycol, dicarbamate <sup>6</sup>	5952-26-1	0.056	1.4
Diethyl phthalate	84-66-2	0.20	28
p-Dimethylaminoazobenzene	60-11-7	0.13	NA
2,4-Dimethyl phenol	105-67-9	0.036	14
Dimethyl phthalate	131-11-3	0.047	28
Dimetilan <sup>6</sup>	644-64-4	0.056	1.4
Di-n-butyl phthalate	84-74-2	0.057	28
1,4-Dinitrobenzene	100-25-4	0.32	2.3
4,6-Dinitro-o-cresol	534-52-1	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
Dithiocarbamates (total) <sup>6</sup>	137-30-4	0.028	28
Endosulfan I	959-98-8	0.023	0.066
Endosulfan II	33213-65-9	0.029	0.13
Endosulfan sulfate	1031-07-8	0.029	0.13
Endrin	72-20-8	0.0028	0.13
Endrin aldehyde	7421-93-4	0.025	0.13
EPTC <sup>6</sup>	759-94-4	0.042	1.4
Ethyl acetate	141-78-6	0.34	33
Ethyl benzene	100-41-4	0.057	10

Ethyl cyanide (Propanenitrile)	107-12-0	0.24	360
Ethyl ether	60-29-7	0.12	160
Ethyl methacrylate	97-63-2	0.14	160
Ethylene oxide	75-21-8	0.12	NA
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Famphur	52-85-7	0.017	15
Fluoranthene	206-44-0	0.068	3.4
Fluorene	86-73-7	0.059	3.4
Formetanate hydro- chloride <sup>6</sup>	23422-53-9	0.056	1.4
Formparanate <sup>6</sup>	17702-57-7	0.056	1.4
Heptachlor	76-44-8	0.0012	0.066
Heptachlor epoxide	1024-57-3	0.016	0.066
Hexachlorobenzene	118-74-1	0.055	10
Hexachlorobutadiene	87-68-3	0.055	5.6
Hexachloro- cyclopentadiene	77-47-4	0.057	2.4
HxCDDs (All Hexachlorodibenzo-p- dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachloro- dibenzofurans)	NA	0.000063	0.001
Hexachloroethane	67-72-1	0.055	30
Hexachloropropylene	1888-71-7	0.035	30
Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4
Iodomethane	74-88-4	0.19	65
Isobutyl alcohol	78-83-1	5.6	170
Isodrin	465-73-6	0.021	0.066
Isolan <sup>6</sup>	119-38-0	0.056	1.4
Isosafrole	120-58-1	0.081	2.6
Kepone	143-50-0	0.0011	0.13
Methacrylonitrile	126-98-7	0.24	84
Methanol	67-56-1	5.6	0.75 mg/l TCLP
Methapyrilene	91-80-5	0.081	1.5
Methiocarb <sup>6</sup>	2032-65-7	0.056	1.4
Methomyl <sup>6</sup>	16752-77-5	0.028	0.14
Methoxychlor	72-43-5	0.25	0.18
3-Methylcholanthrene	56-49-5	0.0055	15
4,4-Methylene bis(2- chloroaniline)	101-14-4	0.50	30
Methylene chloride	75-09-2	0.089	30
Methyl ethyl ketone	78-93-3	0.28	36
Methyl isobutyl ketone	108-10-1	0.14	33
Methyl methacrylate	80-62-6	0.14	160
Methyl methansulfonate	66-27-3	0.018	NA

Methyl parathion	298-00-0	0.014	4.6
Metolcarb <sup>6</sup>	1129-41-5	0.056	1.4
Mexacarbate <sup>6</sup>	315-18-4	0.056	1.4
Molinate <sup>6</sup>	2212-67-1	0.042	1.4
Naphthalene	91-20-3	0.059	5.6
2-Naphthylamine	91-59-8	0.52	NA
o-Nitroaniline	88-74-4	0.27	14
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-Nitrosodiethyl- amine	55-18-5	0.40	28
N-Nitrosodimethyl- amine	62-75-9	0.40	2.3
N-Nitroso-di-n- butylamine	924-16-3	0.40	17
N-Nitrosomethyl- ethylamine	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
Oxamyl <sup>6</sup>	23135-22-0	0.056	0.28
Parathion	56-38-2	0.014	4.6
Total PCBs (sum of all PCB isomers, or all Aroclors)	1336-36-3	0.10	10
Pebulate <sup>6</sup>	1114-71-2	0.042	1.4
Pentachlorobenzene	608-93-5	0.055	10
PeCDDs (All Pentachlorodibenzo- p-dioxins)	NA	0.000063	0.001
PeCDFs (All Pentachloro- dibenzofurans)	NA	0.000035	0.001
Pentachloroethane	76-01-7	0.055	6.0
Pentachloro- nitrobenzene	82-68-8	0.055	4.8
Pentachlorophenol	87-86-5	0.089	7.4
Phenacetin	62-44-2	0.081	16
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
o-Phenylenediamine <sup>6</sup>	95-54-5	0.056	5.6
Phorate	298-02-2	0.021	4.6
Phthalic acid	100-21-0	0.055	28
Phthalic anhydride	85-44-9	0.055	28
Physostigmine <sup>6</sup>	57-47-6	0.056	1.4
Physostigmine salicylate <sup>6</sup>	57-64-7	0.056	1.4
Promecarb <sup>6</sup>	2631-37-0	0.056	1.4
Pronamide	23950-58-5	0.093	1.5

Propham <sup>6</sup>	122-42-9	0.056	1.4
Propoxur <sup>6</sup>	114-26-1	0.056	1.4
Prosulfocarb <sup>6</sup>	52888-80-9	0.042	1.4
Pyrene	129-00-0	0.067	8.2
Pyridine	110-86-1	0.014	16
Safrole	94-59-7	0.081	22
Silvex (2,4,5-TP)	93-72-1	0.72	7.9
1,2,4,5-Tetrachloro- benzene	95-94-3	0.055	14
TCDDs (All Tetrachlorodibenzo- p-dioxins)	NA	0.000063	0.001
TCDFs (All Tetrachloro- dibenzofurans)	NA	0.000063	0.001
1,1,1,2-Tetrachloro- ethane	630-20-6	0.057	6.0
1,1,2,2-Tetrachloro- ethane	79-34-5	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
2,3,4,6-Tetrachloro- phenol	58-90-2	0.030	7.4
Thiodicarb <sup>6</sup>	59669-26-0	0.019	1.4
Thiophanate-methyl <sup>6</sup>	23564-05-8	0.056	1.4
Tirpate <sup>6</sup>	26419-73-8	0.056	0.28
Toluene	108-88-3	0.080	10
Toxaphene	8001-35-2	0.0095	2.6
Triallate <sup>6</sup>	2303-17-5	0.042	1.4
Tribromomethane (Bromoform)	75-25-2	0.63	15
1,2,4-Trichloro- benzene	120-82-1	0.055	19
1,1,1-Trichloro- ethane	71-55-6	0.054	6.0
1,1,2-Trichloro- ethane	79-00-5	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0
Trichloromonofluoro- methane	75-69-4	0.020	30
2,4,5-Trichloro- phenol	95-95-4	0.18	7.4
2,4,6-Trichloro- phenol	88-06-2	0.035	7.4
2,4,5-Trichloro- phenoxyacetic acid/2,4,5-T	93-76-5	0.72	7.9
1,2,3-Trichloro- propane	96-18-4	0.85	30
1,1,2-Trichloro- 1,2,2-trifluoro- ethane	76-13-1	0.057	30
Triethylamine <sup>6</sup>	101-44-8	0.081	1.5

tris-(2,3-Dibromo-propyl) phosphate Vernolate <sup>6</sup>	126-72-7	0.11	0.10
Vinyl chloride	1929-77-7	0.042	1.4
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	75-01-4	0.27	6.0
	1330-20-7	0.32	30
Antimony	7440-36-0	1.9	2.1 mg/l TCLP
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Barium	7440-39-3	1.2	7.6 mg/l TCLP
Beryllium	7440-41-7	0.82	0.014 mg/l TCLP
Cadmium	7440-43-9	0.69	0.19 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.86 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	0.37 mg/l TCLP
Mercury-Nonwastewater from Retort	7439-97-6	NA	0.20 mg/l TCLP
Mercury-All Others	7439-97-6	0.15	0.025 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 mg/l TCLP
Selenium	7782-49-2	0.82	0.16 mg/l TCLP
Silver	7440-22-4	0.43	0.30 mg/l TCLP
Sulfide	18496-25-8	14	NA
Thallium	7440-28-0	1.4	0.078 mg/l TCLP
Vanadium <sup>5</sup>	7440-62-2	4.3	0.23 mg/l TCLP
Zinc <sup>5</sup>	7440-66-6	2.61	5.3 mg/l TCLP

- 1 CAS means Chemical Abstract Services. When the waste code 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.
- 2 Concentration standards for wastewaters are expressed in mg/l are based on analysis of composite samples.
- 3 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 35 Ill. Adm. Code 724.Subpart O or

35 Ill. Adm. Code 725.Subpart O 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 40 CFR 268.40(d). All concentration standards for nonwastewaters are based on analysis of grab samples.

- 4 Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010 or 9012, found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.
- 5 These constituents are not "underlying hazardous constituents" in characteristic wastes, according to the definition at Section 728.102(i).
- 6 This footnote corresponds with note 6 to the table to 40 CFR 268.48(a), which has already expired by its own terms. This statement maintains structural consistency with the federal regulations.

Note: NA means not applicable.

**BOARD NOTE: Derived from table to 40 CFR 268.48(a) (1997).**

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

TITLE 35: ENVIRONMENTAL PROTECTION  
 SUBTITLE G: WASTE DISPOSAL  
 CHAPTER I: POLLUTION CONTROL BOARD  
 SUBCHAPTER d: UNDERGROUND INJECTION CONTROL AND  
 UNDERGROUND STORAGE TANK PROGRAMS

PART 738  
 HAZARDOUS WASTE INJECTION RESTRICTIONS

SUBPART A: GENERAL

Section  
 738.101 Purpose, Scope, and Applicability  
 738.102 Definitions  
 738.103 Dilution Prohibited as a Substitute for Treatment  
 738.104 Case-by-Case Extensions of an Effective Date  
 738.105 Waste Analysis

SUBPART B: PROHIBITIONS ON INJECTION

Section  
 738.110 Waste Specific Prohibitions - Solvent Wastes

738.111	Waste Specific Prohibitions - Dioxin-Containing Wastes
738.112	Waste Specific Prohibitions - California List Wastes
738.114	Waste Specific Prohibitions - First Third Wastes
738.115	Waste Specific Prohibitions - Second Third Wastes
738.116	Waste Specific Prohibitions - Third Third Wastes
738.117	Waste-Specific Prohibitions - Newly-Listed Wastes
738.118	Waste-Specific Prohibitions - Newly-Listed and Identified Wastes

SUBPART C: PETITION STANDARDS AND PROCEDURES

Section

738.120	Petitions to Allow Injection of a Prohibited Waste
738.121	Required Information to Support Petitions
738.122	Submission, Review and Approval or Denial of Petitions
738.123	Review of Adjusted Standards
738.124	Termination of Adjusted Standards

AUTHORITY: Implementing Sections 13 and 22.4 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/13, 22.4 and 27].

SOURCE: Adopted in R89-2 at 14 Ill. Reg. 3059, effective February 20, 1990; amended in R89-11 at 14 Ill. Reg. 11948, effective July 9, 1990; amended in R90-14 at 15 Ill. Reg. 11425, effective July 24, 1991; amended in R92-13 at 17 Ill. Reg. 6190, effective April 5, 1993; amended in R93-6 at 17 Ill. Reg. 15641, effective September 14, 1993; amended in R95-4 at 19 Ill. Reg. 9501, effective June 27, 1995; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 238, effective December 16, 1997; amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

SUBPART A: GENERAL

Section 738.101 Purpose, Scope, and Applicability

- a) This Part identifies hazardous wastes that are restricted from disposal into Class I wells and defines those circumstances under which a waste, otherwise prohibited from injection, may be injected.
- b) The requirements of this Part apply to owners or operators of the following Class I wells:
  - 1) Hazardous waste injection wells that are used to inject hazardous waste; and
  - 2) Injection wells that are used to inject wastes which once exhibited a prohibited characteristic of hazardous waste identified in 35 Ill. Adm. Code 721.Subpart C, at the point of generation, and

which no longer exhibit the characteristic at the point of injection.

- c) Wastes otherwise prohibited from injection may continue to be injected:
- 1) If an extension from the effective date of a prohibition has been granted pursuant to Section 738.104; or
  - 2) If an adjusted standard has been granted in response to a petition filed under Section 738.120; or
  - 3) If the waste is generated by a conditionally exempt small quantity generator, as defined in 35 Ill. Adm. Code 721.105.
- d) A waste that is hazardous only because it exhibits a characteristic of hazardous waste and which is otherwise prohibited from injection under this Part or 35 Ill. Adm. Code 728 is not prohibited from injection if the following is true of the waste:
- 1) It is disposed into a non-hazardous or hazardous waste injection well, as defined under 35 Ill. Adm. Code 730.106(a); and
  - 2) It does not exhibit any prohibited characteristic of hazardous waste identified in 35 Ill. Adm. Code 721.Subpart C at the point of injection.

BOARD NOTE: Derived from 40 CFR 148.1 (1996).

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART B: PROHIBITIONS ON INJECTION

##### Section 738.118 Waste-Specific Prohibitions - Newly-Listed and Identified Wastes

- a) Effective August 11, 1997, the wastes specified in 35 Ill. Adm. Code 721 as USEPA hazardous waste numbers F032, F034, F035 are prohibited from underground injection.
- b) Effective May 12, 1999, the wastes specified in 35 Ill. Adm. Code 721 as USEPA hazardous waste numbers F032, F034, F035 that are mixed with radioactive wastes are prohibited from underground injection.

a) The wastes specified in 35 Ill. Adm. Code 721.132 as having the following USEPA hazardous waste numbers are prohibited from underground injection:

K156  
K157  
K158  
K159  
K160  
K161  
P127  
P128  
P185  
P188  
P189  
P190  
P191  
P192  
P194  
P196  
P197  
P198  
P199  
P201  
P202  
P203  
P204  
P205  
U271  
U277  
U278  
U279  
U280  
U364  
U365  
U366  
U367  
U372  
U373  
U375  
U376  
U377  
U378  
U379  
U381  
U382  
U383  
U384  
U385  
U386  
U387

U389  
U390  
U391  
U392  
U393  
U394  
U395  
U396  
U400  
U401  
U402  
U403  
U404  
U407  
U409  
U410  
U411

bd) The wastes specified in 35 Ill. Adm. Code 721.132 as USEPA hazardous waste number K088 is prohibited from underground injection.

ee) ~~On April 8, 1998, t~~The wastes specified in 35 Ill. Adm. Code 721 as having the following USEPA hazardous waste numbers and Mixed TC/Radioactive wastes are prohibited from underground injection:

D018  
D019  
D020  
D021  
D022  
D023  
D024  
D025  
D026  
D027  
D028  
D029  
D030  
D031  
D032  
D033  
D034  
D035  
D036  
D037  
D038  
D039  
D040  
D041  
D042

D043

d~~f~~) ~~On April 8, 1998, t~~The wastes specified in 35 Ill. Adm. Code 721 as having the following USEPA hazardous waste numbers are prohibited from underground injection:

D001

D002

D003

(Source: Amended at 22 Ill. Reg. \_\_\_\_\_, effective  
\_\_\_\_\_)