

ILLINOIS POLLUTION CONTROL BOARD

March 3, 2016

IN THE MATTER OF: )  
RCRA SUBTITLE C UPDATE, USEPA ) R16-7  
AMENDMENTS (January 1, 2015 through ) (Identical-in-Substance  
June 30, 2015 and July 2, 2015) ) Rulemaking - Land

Proposed Rule. Proposal for Public Comment.

ORDER OF THE BOARD (by J.A. Burke):

**SUMMARY OF TODAY'S ACTION**

The Board proposes amendments updating the Illinois hazardous waste regulations to include three amendments adopted by the United States Environmental Protection Agency (USEPA) during the first half of calendar year 2015. The Board includes two further sets of amendments that USEPA adopted after the first half of 2015. The Board has included a number of corrections that the Board deems are needed, including many suggested by USEPA and two suggested by the Illinois General Assembly's Joint Committee on Administrative Rules (JCAR). Specifically, the Board proposes identical-in-substance amendments to 35 Ill. Adm. Code 703, 720 through 722, 724 through 728, and 733 for public comment.

This is an identical-in-substance rulemaking to incorporate revisions to the federal hazardous waste regulations into the Illinois hazardous waste regulations. Sections 7.2 and 22.4(a) of the Act (415 ILCS 5/7.2 and 22.4(a) (2014)) require the Board to adopt regulations that are identical in substance to hazardous waste regulations adopted by the USEPA. Section 22.4(a) also provides that Title VII of the Act and Section 5 of the Administrative Procedure Act (5 ILCS 100/5-35 and 5-40 (2014)) do not apply to the Board's adoption of identical-in-substance regulations.

The revised USEPA rules implement Subtitle C of the federal Resource Conservation and Recovery Act of 1976 (RCRA Subtitle C) (42 U.S.C. §§ 6921 *et seq.* (2013)). The federal RCRA Subtitle C hazardous waste management (HWM) regulations are found at 40 C.F.R. 260 through 268, 270 through 273, and 279. USEPA adopted the underlying federal hazardous waste amendments during the time period of January 1, 2015 through June 30, 2015 and on July 2, 2015.

The Board will cause the proposed amendments to be published in the *Illinois Register* and will hold the docket open to receive public comments for 45 days after the date of publication. The Board presently intends to adopt final amendments based on this proposal on or before the due date of June 30, 2016.

This order is supported by an opinion adopted this day.

Sections 7.2 and 22.4(a) of the Act (415 ILCS 5/7.2 and 22.4(a) (2012)) require the Board to adopt regulations that are "identical in substance" to hazardous waste regulations adopted by the USEPA. These USEPA rules implement Subtitle C of the federal Resource

Conservation and Recovery Act of 1976 (RCRA Subtitle C) (42 U.S.C. §§ 6921 *et seq.* (2011)). The federal RCRA Subtitle C hazardous waste management (HWM) regulations are found at 40 C.F.R. 260 through 268, 270 through 273, and 279. USEPA adopted the underlying federal hazardous waste amendments during the time period of January 1, 2014 through June 30, 2014.

Section 22.4(a) also provides that Title VII of the Act and Section 5 of the Administrative Procedure Act (5 ILCS 100/5-35 and 5-40 (2012)) do not apply to the Board's adoption of identical-in-substance regulations.

An accompanying opinion adopted today supports this order. The Board will cause the proposed amendments to be published in the *Illinois Register* and will hold the docket open to receive public comments for 45 days after the date of publication. The Board will then adopt the amendments, taking into account the public comments received, and file the final rules 30 days after adoption, in order to provide USEPA an opportunity to review them before filing.

The Board presently expects that rules will be adopted and filed no later than the extended due date of June 30, 2016, pursuant to Section 7.2 of the Act (415 ILCS 5/7.2) (2014)).

The Board directs the Clerk to provide notice in the *Illinois Register* of the following proposed amendments to the Illinois RCRA Subtitle C hazardous waste regulations at 35 Ill. Adm. Code 703, 720 through 722, 724 through 728, and 733:

TITLE 35: ENVIRONMENTAL PROTECTION  
SUBTITLE G: WASTE DISPOSAL  
CHAPTER I: POLLUTION CONTROL BOARD  
SUBCHAPTER b: PERMITS

PART 703  
RCRA PERMIT PROGRAM

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

**SOURCE:** Adopted in R82-19 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. 553, 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. 17930, effective September 28, 1998; amended in R98-21/R99-2/R99-7 at 23 Ill. Reg. 2153, effective January 19, 1999; amended in R99-15 at 23 Ill. Reg. 9381, effective July 26, 1999; amended in R00-13 at 24 Ill. Reg. 9765, effective June 20, 2000; amended in R01-21/R01-23 at 25 Ill. Reg. 9313, effective July 9, 2001; amended in R02-1/R02-12/R02-17 at 26 Ill. Reg. 6539, effective April 22, 2002; amended in R03-7 at 27 Ill. Reg. 3496, effective February 14, 2003; amended in R03-18 at 27 Ill. Reg. 12683, effective July 17, 2003; amended in R05-8 at 29 Ill. Reg. 5966, effective April 13, 2005; amended in R06-5/R06-6/R06-7 at 30 Ill. Reg. 2845, effective February 23, 2006;

amended in R06-16/R06-17/R06-18 at 31 Ill. Reg. 487, effective December 20, 2006; amended in R07-5/R07-14 at 32 Ill. Reg. 11672, effective July 14, 2008; amended in R09-16/R10-4 at 34 Ill. Reg. 18505, effective November 12, 2010; amended in R13-15 at 37 Ill. Reg. 17659, effective October 24, 2013; amended in R16-7 at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

## SUBPART D: APPLICATIONS

### Section 703.184 Facility Location Information

- a) In order to show compliance with the facility location requirements of Section 21(1) of the Environmental Protection Act [415 ILCS 5/21(1)], the owner or operator must include the following information, or a demonstration that Section 21(1) does not apply:

- 1) The location of any active or inactive shaft or tunneled mine below the facility;
- 2) The location of any active faults in the earth's crust within two miles of the facility boundary;
- 3) The location of existing private wells or existing sources of a public water supply within 1000 feet of any disposal unit boundary;
- 4) The location of the corporate boundaries of any municipalities within one and one-half miles of the facility boundary;

BOARD NOTE: Subsections (a)(1), (a)(2), (a)(3), and (a)(4) ~~of this Section~~ request information necessary to allow the Agency to determine the applicability of Section 21(1) of the Environmental Protection Act [415 ILCS 5/21(1)] requirements. These provisions are not intended to modify the requirements of the Act. For example, the operator is required to give the location of wells on its own property, even though the Agency might find that these do not prohibit the site location.

- 5) Documentation showing approval of municipalities if such approval is required by Section 21(1) of the Environmental Protection Act [415 ILCS 5/21(1)];

BOARD NOTE: This subsection (a) is a State-only requirement derived from 415 ILCS 5/21(1).

- b) This subsection (b) corresponds with 40 CFR 270.14(b)(11)(ii), which pertains exclusively to facilities located in certain federally listed seismic zones, none of which is in Illinois. This statement maintains structural consistency with the corresponding federal rules;

- c) A facility owner or operator must provide an identification of whether the facility is located within a 100-year floodplain. This identification must indicate the source of data for such determination and include a copy of the relevant flood map produced by the Federal Emergency Management Agency, National Flood Insurance Program (NFIP), if used, or the calculations and maps used where a NFIP map is not available. Information must also be provided identifying the 100-year flood level and any other special flooding factors (e.g., wave action) that must be considered in designing, constructing, operating, or maintaining the facility to withstand washout from a 100-year flood;

BOARD NOTE: NFIP maps are available as follows: Flood Map Distribution Center, National Flood Insurance Program, Federal Emergency Management Agency, 6930 (A-F) San Tomas Road, Baltimore, MD 21227-6227. 800-638-6620; and, Illinois Floodplain Information Depository, State Water Survey, 514 WSRC, University of Illinois, Urbana, IL 61801. 217-333-0447. Where NFIP maps are available, they will normally be determinative of whether a facility is located within or outside of the 100-year flood plain. However, where the NFIP map excludes an area (usually areas of the flood plain less than 200 feet in width), these areas must be considered and a determination made as to whether they are in the 100-year floodplain. Where NFIP maps are not available for a proposed facility location, the owner or operator must use equivalent mapping techniques to determine whether the facility is within the 100-year floodplain, and if so located, what is the 100-year flood elevation.

- d) An owner or operator of a facility located in the 100-year floodplain must provide the following information:
- 1) Engineering analysis to indicate the various hydrodynamic and hydrostatic forces expected to result at the site as a consequence of a 100-year flood;
  - 2) Structural or other engineering studies showing the design of operational units (e.g., tanks, incinerators) and flood protection devices (e.g., floodwalls, dikes) at the facility and how these will prevent washout;
  - 3) If applicable, and in lieu of subsections (d)(1) and (d)(2) ~~of this Section~~, a detailed description of procedures to be followed to remove hazardous waste to safety before the facility is flooded, including the following:
    - A) Timing of such movement relative to flood levels, including estimated time to move the waste, to show that such movement can be completed before floodwaters reach the facility;
    - B) A description of the locations to which the waste will be moved and demonstration that those facilities will be eligible to receive hazardous waste in accordance with 35 Ill. Adm. Code 702, 703, and 724 through 727;

- C) The planned procedures, equipment, and personnel to be used and the means to ensure that such resources will be available in time for use; and
- D) The potential for accidental discharges of the waste during movement;
- e) An owner or operator of an existing facility not in compliance with 35 Ill. Adm. Code 724.118(b) must provide a plan showing how the facility will be brought into compliance and a schedule for compliance. Such an owner or operator must file a concurrent variance petition with the Board; and
- f) An owner or operator of a new regional pollution control facility, as defined in Section 3 of the Environmental Protection Act [415 ILCS 5/3], must provide documentation showing site location suitability from the county board or other governing body as provided by Section 39(c) and 39.2 of that Act [415 ILCS 5/39(c) and 39.2].

BOARD NOTE: The Board has codified 40 CFR 270.14(b)(11)(iii) through (b)(11)(v) as Subsections-subsections (c) through (e) of this Section are derived from 40 CFR 270.14(b)(11)(iii) through (b)(11)(v) (2005) to comport with Illinois Administrative Code codification requirements. The Board has not codified an equivalent to 40 CFR 270.14(b)(11)(i) and (b)(11)(ii), relating to certain seismic zones not located within Illinois.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

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

Except as otherwise provided in 35 Ill. Adm. Code 724.101, the owner or operator of a tank, a surface impoundment, or a container that uses air emission controls in accordance with the requirements of Subpart CC of 35 Ill. Adm. Code 724 must 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 Subpart CC of 35 Ill. Adm. Code 724 and certification by the owner or operator that the requirements of this Subpart D 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” in appendix B to 40 CFR 52.741 (VOM Measurement Techniques for Capture Efficiency), incorporated by reference in 35 Ill. Adm. Code 720.111(b).

- 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 724.985(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 (Determination of Volatile Organic Compound Leaks) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), 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 Subpart CC of 35 Ill. Adm. Code 725 cannot comply with Subpart CC of 35 Ill. Adm. Code 724 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) (2007)~~ 270.27 (2015).

(Source: Amended at 40 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

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720.141	Procedures for Case-by-Case Regulation of Hazardous Waste Recycling Activities
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720.143	Legitimate Recycling of Hazardous Secondary Materials

720.APPENDIX A Overview of Federal RCRA Subtitle C (Hazardous Waste) Regulations (Repealed)

**AUTHORITY:** Implementing Sections 7.2, 13, and 22.4 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/7.2, 13, 22.4, and 27].

**SOURCE:** Adopted in R81-22 at 5 Ill. Reg. 9781, effective May 17, 1982; amended and codified in R81-22 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 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, effective 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. 17496, effective September 28, 1998; amended in R98-21/R99-2/R99-7 at 23 Ill. Reg. 1704, effective January 19, 1999; amended in R99-15 at 23 Ill. Reg. 9094, effective July 26, 1999; amended in R00-5 at 24 Ill. Reg. 1063, effective January 6, 2000; amended in R00-13 at 24 Ill. Reg. 9443, effective June 20, 2000; amended in R01-3 at 25 Ill. Reg. 1266, effective January 11, 2001; amended in R01-21/R01-23 at 25 Ill. Reg. 9168, effective July 9, 2001; amended in R02-1/R02-12/R02-17 at 26 Ill. Reg. 6550, effective April 22, 2002; amended in R03-7 at 27 Ill. Reg. 3712, effective February 14, 2003; amended in R03-18 at 27 Ill. Reg. 12713, effective July 17, 2003; amended in R05-8 at 29 Ill. Reg. 5974, effective April 13, 2005; amended in R05-2 at 29 Ill. Reg. 6290, effective April 22, 2005; amended in R06-5/R06-6/R06-7 at 30 Ill. Reg. 2930, effective February 23, 2006; amended in R06-16/R06-17/R06-18 at 31 Ill. Reg. 730, effective December 20, 2006; amended in R07-5/R07-14 at 32 Ill. Reg. 11726, effective July 14, 2008; amended in R09-3 at 33 Ill. Reg. 922, effective December 30, 2008; amended in R09-16/R10-4 at 34 Ill. Reg. 18535, effective November 12, 2010; amended in R11-2/R11-16 at 35 Ill. Reg. 17672, effective October 14, 2011; amended in R12-7 at 36 Ill. Reg. 8740, effective June 4, 2012; amended in R13-5 at 37 Ill. Reg. 3180, effective March 4, 2013; amended in R13-15 at 37 Ill. Reg. 17726, effective October 24, 2013; amended in R14-1/R14-2/R14-3 at 38 Ill. Reg. 7189, effective March 13, 2014; amended in R14-13 at 38 Ill. Reg. 12378, effective May 27, 2014; amended in R15-1 at 39 Ill. Reg. 1542, effective January 12, 2015; amended in R16-7 at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

## SUBPART B: DEFINITIONS AND REFERENCES

### Section 720.110 Definitions

When used in 35 Ill. Adm. Code 720 through 728, 733, 738, and 739 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.

“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 United States 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 tanks, 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 that consists 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:

Boiler by physical 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 sections must be of integral design. To be of integral design, the combustion chamber and the primary energy recovery sections (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 sections 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. 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 may 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

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

“Carbon dioxide stream” means carbon dioxide that has been captured from an emission source (e.g., a power plant), plus incidental associated substances derived from the source materials and the capture process, and any substances added to the stream to enable or improve the injection process.

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

“Cathode ray tube” or “CRT” means a vacuum tube, composed primarily of glass, which is the visual or video display component of an electronic device. A “used, intact CRT” means a CRT whose vacuum has not been released. A “used, broken CRT” means glass removed from its housing or casing whose vacuum has been released.

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

“Closed portion” means that portion of a facility that 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.

“Contained” means held in a unit (including a land-based unit, as defined in this Subpart B) that meets either of the following containment situations:

Containment situation 1 (non-hazardous waste containment):

The unit is in good condition, with no leaks or other continuing or intermittent unpermitted releases of the hazardous secondary materials to the environment, and is designed, as appropriate for the hazardous secondary materials, to prevent unpermitted releases of hazardous secondary materials to the environment.

“Unpermitted releases” are releases that are not covered by a permit (such as a permit to discharge to water or air) and may include, but are not limited to, releases through surface transport by precipitation runoff, releases to soil and groundwater,

windblown dust, fugitive air emissions, and catastrophic unit failures;

The unit is properly labeled or otherwise has a system (such as a log) to immediately identify the hazardous secondary materials in the unit; and

The unit holds hazardous secondary materials that are compatible with other hazardous secondary materials placed in the unit and is compatible with the materials used to construct the unit and addresses any potential risks of fires or explosions.

Containment situation 2 (hazardous waste containment):

Hazardous secondary materials in units that meet the applicable requirements of 35 Ill. Adm. Code 724 or 725 are presumptively contained.

“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” means a hazardous waste management unit that is used to store or treat hazardous waste pursuant to the provisions of Subpart DD of 35 Ill. Adm. Code 724 and Subpart DD of 35 Ill. Adm. Code 725.

“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 that could threaten human health or the environment.

“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.

“CRT collector” means a person who receives used, intact CRTs for recycling, repair, resale, or donation.

“CRT exporter” means any person in the United States that initiates a transaction to send used CRTs outside the United States or its territories for recycling or reuse, or any intermediary in the United States arranging for such export.

“CRT glass manufacturer” means an operation or part of an operation that uses a furnace to manufacture CRT glass.

“CRT processing” means conducting all of the following activities:

Receiving broken or intact CRTs;

Intentionally breaking intact CRTs or further breaking or separating broken CRTs; and

Sorting or otherwise managing glass removed from CRT monitors.

“Designated facility” means either of the following entities:

A hazardous waste treatment, storage, or disposal facility that has been designated on the manifest by the generator, pursuant to 35 Ill. Adm. Code 722.120, of which any of the following is true:

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

The facility has received a RCRA permit from USEPA pursuant to 40 CFR 124 and 270;

The facility has received a RCRA permit from a state authorized by USEPA pursuant to 40 CFR 271; or

The facility is regulated pursuant to 35 Ill. Adm. Code 721.106(c)(2) or Subpart F of 35 Ill. Adm. Code 266; or

A generator site designated by the hazardous waste generator on the manifest to receive back its own waste as a return shipment from a designated hazardous waste treatment, storage, or disposal facility that has rejected the waste in accordance with 35 Ill. Adm. Code 724.172(f) or 725.172(f).

If a waste is destined to a facility in a state other than Illinois that 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.

“Dioxins and furans” means tetra-, penta-, hexa-, hepta-, and octa-chlorinated dibenzo dioxins and furans.

“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 runoff to an associated collection system at wood preserving plants.

“Electronic manifest” or “e-Manifest” means the electronic format of the hazardous waste manifest that is obtained from USEPA’s national e-Manifest System and transmitted electronically to the e-Manifest System, and which is the legal equivalent of USEPA Forms 8700-22 (Manifest) and 8700-22A (Continuation Sheet).

“Electronic Manifest System” or “e-Manifest System” means USEPA’s national information technology system through which the e-Manifest may be obtained, completed, transmitted, and distributed to users of the e-Manifest System and to regulatory agencies.

“Elementary neutralization unit” means a device of which the following is true:

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



It 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 Subpart D of 35 Ill. Adm. Code 721 and to each characteristic identified in Subpart C of 35 Ill. Adm. Code 721.

“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 that 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 of the following had occurred:

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

The owner or operator had entered into contractual obligations that 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 which was in operation, or for which installation was 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, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system and if either of the following is true:

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

The owner or operator has entered into contractual obligations that 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 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 United States Department of Defense (USDOD) emergency explosive ordnance disposal (EOD), technical escort unit (TEU), and USDOD-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 the following:

All contiguous land and structures, other appurtenances, and improvements on the land used for treating, storing, or disposing of hazardous waste or for managing hazardous secondary materials prior to reclamation. 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 pursuant to 35 Ill. Adm. Code 724.201 or 35 Ill. Adm. Code 727.201, 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 pursuant to RCRA section 3008(h).

Notwithstanding the immediately-preceding paragraph of this definition, a remediation waste management site is not a facility that is subject to 35 Ill. Adm. Code 724.201, but a facility that is subject to corrective action requirements if the site is located within such a facility.

“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 pursuant to 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 that readily separate from the solid portion of a waste under ambient temperature and pressure.

~~“Gasification” means, for the purpose of complying with 35 Ill. Adm. Code 721.104(a)(12)(A), a process conducted in an enclosed device or system that is designed and operated to process petroleum feedstock, including oil-bearing hazardous secondary materials, through a series of highly controlled steps utilizing thermal decomposition, limited oxidation, and gas cleaning to yield a synthesis gas composed primarily of hydrogen and carbon monoxide gas.~~

“Generator” means any person, by site, whose act or process produces 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 secondary material” means a secondary material (e.g., spent material, by-product, or sludge) that, when discarded, would be identified as hazardous waste pursuant to 35 Ill. Adm. Code 721.

~~“Hazardous secondary material generated and reclaimed under the control of the generator” means one of the following materials:~~

~~A material that is both generated and reclaimed at the generating facility (for purposes of this definition, generating facility means all contiguous property owned, leased, or otherwise controlled by the hazardous secondary material generator);~~

~~A material that is generated and reclaimed at different facilities, if both of the following conditions are fulfilled:~~

~~Either the reclaiming facility is controlled by the generator, or both the generating facility and the reclaiming facility are controlled by the same person, as “person” is defined in this Section; and~~

~~The generator provides either of the following certifications:~~

~~“On behalf of [insert generator facility name], I certify that this facility will send the indicated hazardous secondary material to [insert reclaimer facility name], which is controlled by [insert generator facility name] and that [insert the name of either facility] has acknowledged full responsibility for the safe management of the hazardous secondary material.”~~

or

~~“On behalf of [insert generator facility name] I certify that this facility will send the indicated hazardous secondary material to [insert reclaimer facility name], that both facilities are under common control, and that [insert name of either facility] has acknowledged full responsibility for the safe management of the hazardous secondary material.”~~

~~For purposes of this definition, “control” means the power to direct the policies of the facility, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate facilities on behalf of a different person, as “person” is defined in this Section, shall not be deemed to “control” such facilities; or~~

~~A material that is generated pursuant to a written contract between a tolling contractor and a toll manufacturer and which is reclaimed by the tolling contractor, if the tolling contractor certifies the following:~~

~~“On behalf of [insert tolling contractor name], I certify that [insert tolling contractor name], has a written contract with [insert toll manufacturer name] to manufacture [insert name of product or intermediate] which is made from specified unused materials, and that [insert tolling contractor name] will reclaim the hazardous secondary materials generated during this manufacture. On behalf of [insert tolling contractor name], I also certify that [insert tolling contractor name] retains ownership of, and responsibility for, the hazardous secondary materials that are generated during the course of the manufacture, including any releases of hazardous secondary materials that occur during the manufacturing process.”~~

~~For purposes of this definition, “tolling contractor” means a person who arranges for the production of a product or intermediate made from specified unused materials through a written contract with a toll manufacturer. “Toll manufacturer” means a person who produces a product or intermediate made from specified unused materials pursuant to a written contract with a tolling contractor.~~

“Hazardous secondary material generator” means any person whose act or process produces hazardous secondary materials at the generating facility. For purposes of this definition, “generating facility” means all contiguous property owned, leased, or otherwise controlled by the hazardous secondary material generator. For the purposes of Sections 721.102(a)(2)(B) and 721.104(a)(23), a facility that collects hazardous secondary materials from other persons is not the hazardous secondary material generator.

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

“Hazardous waste constituent” means a constituent that caused the hazardous waste to be listed in Subpart D of 35 Ill. Adm. Code 721, or a constituent listed in 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 that was not operated after November 19, 1980. (See also “active portion” and “closed portion.”)

“Incinerator” means any enclosed device of which the following is true:

The facility uses controlled flame combustion, and both of the following are true of the facility:

The facility does not meet the criteria for classification as a boiler, sludge dryer, or carbon regeneration unit, nor

The facility is not listed as an industrial furnace; or

The facility meets the definition of infrared incinerator or plasma arc incinerator.

“Incompatible waste” means a hazardous waste that is unsuitable for the following:

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 Appendix E to 35 Ill. Adm. Code 724 and Appendix E to 35 Ill. Adm. Code 725 for references that list 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 three percent, 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 percent, as generated; and

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 that 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 that 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 that 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.

“Intermediate facility” means any facility that stores hazardous secondary materials for more than 10 days and which is neither a hazardous secondary material generator nor a reclaimer of hazardous secondary material.

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

“Lamp” or “universal waste lamp” means the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, or infrared regions of the electromagnetic spectrum. Examples of common universal waste lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high-pressure sodium, and metal halide lamps.



“Land-based unit” means an area where hazardous secondary materials are placed in or on the land before recycling. This definition does not include land-based production units.

“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 that 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 that 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 USEPA Form 8700-22 (including, if necessary, USEPA Form 8700-22A), or the e-Manifest, originated and signed in accordance with the applicable requirements of 35 Ill. Adm. Code 722 through 727.

“Manifest tracking number” means the alphanumeric identification number (i.e., a unique three letter suffix preceded by nine numerical digits) that is pre-printed in Item 4 of the manifest by a registered source.

“Mercury-containing equipment” means a device or part of a device (including thermostats, but excluding batteries and lamps) that contains elemental mercury integral to its function.

“Military munitions” means all ammunition products and components produced or used by or for the United States Department of Defense or the United States Armed Services for national defense and security, including military munitions under the control of the United States Department of Defense (USDOD), the United States Coast Guard, the United States Department of Energy (USDOE), 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 USDOD 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 USDOE’s nuclear weapons program after all sanitization operations required under the Atomic Energy Act of 1954 (42 USC 2014 et seq.), as amended, have been completed.

“Mining overburden returned to the mine site” means any material overlying an economic mineral deposit that 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 that is not a container; tank; surface impoundment; pile; land treatment unit; landfill; incinerator; boiler; industrial furnace; underground injection well with appropriate technical standards pursuant to 35 Ill. Adm. Code 730; containment building; corrective action management unit (CAMU); unit eligible for a research, development, and demonstration permit pursuant to 35 Ill. Adm. Code 703.231; or staging pile.

“Movement” means hazardous waste that is transported to a facility in an individual vehicle.

“NAICS Code” means the code number assigned a facility using the “North American Industry Classification System,” incorporated by reference in Section 720.111.

“New hazardous waste management facility” or “new facility” means a facility that 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 commenced after July 14, 1986. (See also “existing tank system.”)

“No free liquids,” as used in 35 Ill. Adm. Code 721.104(a)(26) and (b)(18), means that solvent-contaminated wipes may not contain free liquids, as determined by Method 9095B (Paint Filter Liquids Test), included in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” incorporated by reference in Section 720.111, and that there is no free liquid in the container holding the wipes. No free liquids may also be determined using another standard or test method that the Agency has determined by permit condition is equivalent to Method 9095B.

“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 that 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. Non-contiguous properties owned by the same person but connected by a right-of-way that the owner 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 that 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 that 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 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 USC 321(v)), incorporated by reference in Section 720.111(c);

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 (21 USC 360b), incorporated by reference in Section 720.111(c), to be an exempted new animal drug; or

It is an animal feed under FFDCA section 201(w) (21 USC 321(w)), incorporated by reference in Section 720.111(c), that bears or contains any substances described in either of the two preceding paragraphs 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 USC 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 non-containerized 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 that 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 postgraduate 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 rate 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 and 68 Ill. Adm. Code 1380. Professional certification includes, but is not limited to, certification under the certified groundwater professional program of the National Ground Water Association.

“RCRA” means the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 USC 6901 et seq.).

“RCRA standardized permit” means a RCRA permit issued pursuant to Subpart J of 35 Ill. Adm. Code 703 and Subpart G of 35 Ill. Adm. Code 702 that authorizes management of hazardous waste. The RCRA standardized permit may have two parts: a uniform portion issued in all cases and a supplemental portion issued at the discretion of the Agency.

“Regional Administrator” means the Regional Administrator for the USEPA region in which the facility is located or the Regional Administrator’s designee.

“Remanufacturing” means processing a higher-value hazardous secondary material in order to manufacture a product that serves a similar functional purpose as the original commercial-grade material. For the purpose of this definition, a hazardous secondary material is considered higher-value if it was generated from the use of a commercial-grade material in a manufacturing process and can be remanufactured into a similar commercial-grade material.

“Remediation waste” means all solid and hazardous wastes, and all media (including groundwater, surface water, soils, and sediments) and debris that are managed for implementing cleanup.

“Remediation waste management site” means a facility where an owner or operator is or will be treating, storing, or disposing of hazardous remediation wastes. A remediation waste management site is not a facility that is subject to corrective action pursuant to 35 Ill. Adm. Code 724.201, but a remediation waste management

site is subject to corrective action requirements if the site is located in such a facility.

“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) that 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 Classification code,” as assigned to a site by the United States Department of Transportation, Federal Highway Administration, based on the particular activities that occur on the site, as set forth in its publication “Standard Industrial Classification Manual,” incorporated by reference in Section 720.111(a).

“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 that is used to dehydrate sludge and which has a total thermal input, excluding the heating value of the sludge itself, of 2,500 Btu/lb or less of sludge treated on a wet-weight basis.

“Small quantity generator” means a generator that generates less than 1,000 kg of hazardous waste in a calendar month.

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

“Solvent-contaminated wipe” means the following:

A wipe that, after use or after cleaning up a spill, fulfills one or more of the following conditions:

The wipe contains one or more of the F001 through F005 solvents listed in 35 Ill. Adm. Code 721.131 or the corresponding P- or U-listed solvents found in 35 Ill. Adm. Code 721.133;

The wipe exhibits a hazardous characteristic found in Subpart C of 35 Ill. Adm. Code 721 when that characteristic results from a solvent listed in 35 Ill. Adm. Code 721; or

The wipe exhibits only the hazardous waste characteristic of ignitability found in 35 Ill. Adm. Code 721.121 due to the presence of one or more solvents that are not listed in 35 Ill. Adm. Code 721.

Solvent-contaminated wipes that contain listed hazardous waste other than solvents, or exhibit the characteristic of toxicity, corrosivity, or reactivity due to contaminants other than solvents, are not eligible for the exclusions at 35 Ill. Adm. Code 721.104(a)(26) and (b)(18).

“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.

“Staging pile” means an accumulation of solid, non-flowing “remediation waste” (as defined in this Section) that is not a containment building and that is used only during remedial operations for temporary storage at a facility. Staging piles must be designated by the Agency according to 35 Ill. Adm. Code 724.654.

“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.

“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.

“Surface impoundment” or “impoundment” means a facility or part of a facility that is a natural topographic depression, manmade excavation, or diked area formed primarily of earthen materials (although it may be lined with manmade materials) that 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 that is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic) that provide structural support.

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

“TEQ” means toxicity equivalence, the international method of relating the toxicity of various dioxin and furan congeners to the toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin.

“Thermal treatment” means the treatment of hazardous waste in a device that 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 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 that is directly connected to an industrial production process and which is constructed and operated in a manner that 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 or hazardous secondary materials 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 the following:

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



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; and

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 the waste, recover energy or material resources from the waste, or render the 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, 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 pursuant to 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;

Mercury-containing equipment, as described in 35 Ill. Adm. Code 733.104;  
and

Lamps, as described in 35 Ill. Adm. Code 733.105.

“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 either of the following:

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” means the United States Environmental Protection Agency.

“User of the Electronic Manifest System” or “user of the e-Manifest System” means a hazardous waste generator, a hazardous waste transporter, an owner or

operator of a hazardous waste treatment, storage, recycling, or disposal facility, or any other person or entity—

that is required to use a manifest to comply with any federal or state requirement to track the shipment, transportation, and receipt of either—

hazardous waste or other waste material that is shipped from the site of generation to an off-site designated facility for treatment, storage, recycling, or disposal; or

rejected wastes or regulated container residues that are shipped from a designated facility to an alternative facility, or returned to the generator; and

which elects to use either—

the e-Manifest System to obtain, complete and transmit an e-Manifest format supplied by the USEPA e-Manifest System; or

the paper manifest form and submits to the e-Manifest System for data processing purposes a paper copy of the manifest (or data from such a paper copy), in accordance with 35 Ill. Adm. Code 724.171(a)(2)(E) or 725.171(a)(2)(E).

A paper copy submitted for data processing purposes is submitted for data exchange purposes only and is not the official copy of record for legal purposes.

“USPS” means the United States Postal Service.

“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 of which the following is true:

It is part of a wastewater treatment facility that 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;

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

It meets the definition of tank or tank system in this Section.

“Water (bulk shipment)” means the bulk transportation of hazardous waste that 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.”)

“Wipe” means a woven or non-woven shop towel, rag, pad, or swab made of wood pulp, fabric, cotton, polyester blends, or other material.

“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 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 720.111 References**

The following documents are incorporated by reference for the purposes of this Part and 35 Ill. Adm. Code 702 through 705, 721 through 728, 730, 733, 738, and 739:

- a) Non-Regulatory Government Publications and Publications of Recognized Organizations and Associations:

ACGME. Available from the Accreditation Council for Graduate Medical Education, 515 North State Street, Suite 2000, Chicago, IL 60654, 312-755-5000:

“Accreditation Council for Graduate Medical Education: Glossary of Terms,” March 19, 2009, referenced in 35 Ill. Adm. Code 722.300.

BOARD NOTE: Also available on the Internet for download and viewing as a PDF file at the following Internet address:  
[http://www.acgme.org/acWebsite/about/ab\\_ACGMEglossary.pdf](http://www.acgme.org/acWebsite/about/ab_ACGMEglossary.pdf).

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

ACI 318-83: “Building Code Requirements for Reinforced Concrete,” adopted November 1983, referenced in 35 Ill. Adm. Code 724.673 and 725.543.

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

See ASME/ANSI B31.3 and B31.4 and supplements below in this subsection (a) under ASME.

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, referenced in 35 Ill. Adm. Code 724.292, 724.295, 725.292, and 725.295.

“Evaporative Loss from External Floating-Roof Tanks,” API publication 2517, Third Edition, February 1989, USEPA-approved for 35 Ill. Adm. Code 721.983 and 725.984.

“Guide for Inspection of Refinery Equipment,” Chapter XIII, “Atmospheric and Low Pressure Storage Tanks,” 4th Edition, 1981, reaffirmed December 1987, referenced in 35 Ill. Adm. Code 721.291, 724.291, 724.293, 725.291, and 725.292.

“Installation of Underground Petroleum Storage Systems,” API Recommended Practice 1615, Fourth Edition, November 1987, referenced in 35 Ill. Adm. Code 724.292.

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, referenced in 35 Ill. Adm. Code 724.292 and 725.292. 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, referenced in 35 Ill. Adm. Code 724.292 and 725.292. Also available from ANSI.

ASTM. Available from American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, 610-832-9585:

ASTM C 94-90, “Standard Specification for Ready-Mixed Concrete,” approved March 30, 1990, referenced in 35 Ill. Adm. Code 724.673 and 725.543.

ASTM D 88-87, “Standard Test Method for Saybolt Viscosity,” approved April 24, 1981, reapproved January 1987, referenced in 35 Ill. Adm. Code 726.200.

ASTM D 93-85, "Standard Test Methods for Flash Point by Pensky-Martens Closed Tester," approved October 25, 1985, USEPA-approved for 35 Ill. Adm. Code 721.121.

ASTM D 140-70, "Standard Practice for Sampling Bituminous Materials," approved 1970, referenced in Appendix A to 35 Ill. Adm. Code 721.

ASTM D 346-75, "Standard Practice for Collection and Preparation of Coke Samples for Laboratory Analysis," approved 1975, referenced in Appendix A to 35 Ill. Adm. Code 721.

ASTM D 420-69, "Guide to Site Characterization for Engineering, Design, and Construction Purposes," approved 1969, referenced in Appendix A to 35 Ill. Adm. Code 721.

ASTM D 1452-65, "Standard Practice for Soil Investigation and Sampling by Auger Borings," approved 1965, referenced in Appendix A to 35 Ill. Adm. Code 721.

ASTM D 1946-90, "Standard Practice for Analysis of Reformed Gas by Gas Chromatography," approved March 30, 1990, USEPA-approved for 35 Ill. Adm. Code 724.933 and 725.933.

ASTM D 2161-87, "Standard Practice for Conversion of Kinematic Viscosity to Saybolt Universal or to Saybolt Furol Viscosity," March 27, 1987, referenced in 35 Ill. Adm. Code 726.200.

ASTM D 2234-76, "Standard Practice for Collection of a Gross Sample of Coal," approved 1976, referenced in Appendix A to 35 Ill. Adm. Code 721.

ASTM D 2267-88, "Standard Test Method for Aromatics in Light Naphthas and Aviation Gasolines by Gas Chromatography," approved November 17, 1988, USEPA-approved for 35 Ill. Adm. Code 721.963 and 724.963.

ASTM D 2382-88, "Standard Test Method for Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High Precision Method)," approved October 31, 1988, USEPA-approved for 35 Ill. Adm. Code 724.933 and 725.933.

ASTM D 2879-92, "Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope," approved 1992, USEPA-approved for 35 Ill. Adm. Code 725.984, referenced in 35 Ill. Adm. Code 721.963, 724.963, and 725.963.

ASTM D 3828-87, "Standard Test Methods for Flash Point of Liquids by Setaflash Closed Tester," approved December 14, 1988, USEPA-approved for 35 Ill. Adm. Code 721.121(a).

ASTM E 168-88, "Standard Practices for General Techniques of Infrared Quantitative Analysis," approved May 27, 1988, USEPA-approved for 35 Ill. Adm. Code 721.963 and 724.963.

ASTM E 169-87, "Standard Practices for General Techniques of Ultraviolet-Visible Quantitative Analysis," approved February 1, 1987, USEPA-approved for 35 Ill. Adm. Code 721.963 and 724.963.

ASTM E 260-85, "Standard Practice for Packed Column Gas Chromatography," approved June 28, 1985, USEPA-approved for 35 Ill. Adm. Code 724.963.

ASTM G 21-70 (1984a), "Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi," referenced in 35 Ill. Adm. Code 724.414 and 725.414.

ASTM G 22-76 (1984b), "Standard Practice for Determining Resistance of Plastics to Bacteria," referenced in 35 Ill. Adm. Code 724.414 and 725.414.

GPO. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, 202-512-1800:

Standard Industrial Classification Manual (1972), and 1977 Supplement, republished in 1983, referenced in 35 Ill. Adm. Code 702.110 and Section 720.110.

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," USEPA publication number EPA-530/SW-846 (Third Edition, November 1986), as amended by Updates I (July 1992), II (November 1994), IIA (August, 1993), IIB (January 1995), III (December 1996), IIIA (April 1998), and IIIB (November 2004) (document number 955-001-00000-1). See below in this subsection (a) under NTIS.

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, approved March 1985, referenced in 35 Ill. Adm. Code 724.292, 724.295, 725.292, and 725.295.

NFPA. Available from the National Fire Protection Association, 1 Batterymarch Park, Boston, MA 02269, 617-770-3000 or 800-344-3555:

“Flammable and Combustible Liquids Code,” NFPA 30, issued July 14, 1984, referenced in 35 Ill. Adm. Code 721.298, 724.298, 725.298, 725.301, 726.211, and 727.290.

“Flammable and Combustible Liquids Code,” NFPA 30, issued August 7, 1987, referenced in 35 Ill. Adm. Code 721.298, 724.298, 725.298, 725.301, 726.211, and 727.290.

“Flammable and Combustible Liquids Code,” NFPA 30, issued July 18, 2003, as supplemented by TIA 03-1, issued July 15, 2004, and corrected by Errata 30-03-01, issued August 13, 2004, ~~USEPA approved for 35 Ill. Adm. Code 724.298, 725.298, and 727.290,~~ referenced in 35 Ill. Adm. Code 721.298, 724.298, 725.298, 725.301, and 726.211, and 727.290.

NTIS. Available from the U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, 703-605-6000 or 800-553-6847 (Internet address: [www.ntis.gov](http://www.ntis.gov)):

“APTI Course 415: Control of Gaseous Emissions,” December 1981, USEPA publication number EPA-450/2-81-005, NTIS document number PB80-208895, USEPA-approved for 35 Ill. Adm. Code 703.210, 703.211, 703.352, 724.935, and 725.935.

BOARD NOTE: “APTI” denotes USEPA’s “Air Pollution Training Institute” (Internet address: [www.epa.gov/air/oaqps/eog/](http://www.epa.gov/air/oaqps/eog/)).

“Generic Quality Assurance Project Plan for Land Disposal Restrictions Program,” USEPA publication number EPA-530/SW-87-011, March 15, 1987, NTIS document number PB88-170766, referenced in 35 Ill. Adm. Code 728.106.

“Method 1664, n-Hexane Extractable Material (HEM; Oil and Grease) and Silica Gel Treated n-Hexane Extractable Material (SGT-HEM; Nonpolar Material) by Extraction and Gravimetry,” Revision A, February 1999, USEPA publication number EPA-821/R-98-002, NTIS document number PB99-121949, or Revision B, February 2010, USEPA publication number EPA-821/R-10-001, NTIS document number PB2011-100735, USEPA-approved for Appendix I to 35 Ill. Adm. Code 721.

BOARD NOTE: Also available on the Internet for free download as a PDF document from the USEPA website at: [water.epa.gov/scitech/methods/cwa/methods\\_index.cfm](http://water.epa.gov/scitech/methods/cwa/methods_index.cfm). Revision



A is also from the USEPA, National Service Center for Environmental Publications (NSCEP) website at [www.epa.gov/nscep/index.html](http://www.epa.gov/nscep/index.html).

“Methods for Chemical Analysis of Water and Wastes,” Third Edition, March 1983, USEPA document number EPA-600/4-79-020, NTIS document number PB84-128677, referenced in 35 Ill. Adm. Code 725.192.

BOARD NOTE: Also available on the Internet as a viewable/printable HTML document from the USEPA website at [www.epa.gov/clariton/clhtml/pubtitleORD.html](http://www.epa.gov/clariton/clhtml/pubtitleORD.html) as document 600479002.

“North American Industry Classification System,” July 2007, U.S. Department of Commerce, Bureau of the Census, document number PB2007-100002 (hardcover printed volume) or PB2007-500023, referenced in Section 720.110 (definition of “NAICS Code”) for the purposes of Section 720.142, and in 35 Ill. Adm. Code 721.104.

BOARD NOTE: Also available on the Internet from the Bureau of Census: [www.census.gov/naics/2007/naicod07.htm](http://www.census.gov/naics/2007/naicod07.htm).

“Procedures Manual for Ground Water Monitoring at Solid Waste Disposal Facilities,” August 1977, EPA-530/SW-611, NTIS document number PB84-174820, referenced in 35 Ill. Adm. Code 725.192.

“Screening Procedures for Estimating the Air Quality Impact of Stationary Sources,” October 1992, USEPA publication number EPA-454/R-92-019, NTIS document number 93-219095, referenced in 35 Ill. Adm. Code 726.204 and 726.206.

BOARD NOTE: Also available on the Internet for free download as a WordPerfect document from the USEPA website at the following Internet address:  
[www.epa.gov/scram001/guidance/guide/scrng.wpd](http://www.epa.gov/scram001/guidance/guide/scrng.wpd).

“Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” USEPA publication number EPA-530/SW-846 (Third Edition, November 1986; Revision 6, January 2005), as amended by Updates I (July 1992), II (November 1994), IIA (August 1993), IIB (January 1995), III (December 1996), IIIA (April 1998), and IIIB (November 2004) (document number 955-001-00000-1), generally referenced in Appendices A and I to 35 Ill. Adm. Code 721 and 35 Ill. Adm. Code 726.200, 726.206, 726.212, and

728.106 (in addition to the references cited below for specific methods):

Method 0010 (November 1986) (Modified Method 5 Sampling Train), USEPA-approved for Appendix I to 35 Ill. Adm. Code 721.

Method 0011 (December 1996) (Sampling for Selected Aldehyde and Ketone Emissions from Stationary Sources), USEPA-approved for Appendix I to 35 Ill. Adm. Code 721 and for Appendix I to 35 Ill. Adm. Code 726.

Method 0020 (November 1986) (Source Assessment Sampling System), USEPA-approved for Appendix I to 35 Ill. Adm. Code 721.

Method 0023A (December 1996) (Sampling Method for Polychlorinated Dibenzop-Dioxins and Polychlorinated Dibenzofuran Emissions from Stationary Sources), USEPA-approved for Appendix I to 35 Ill. Adm. Code 721, Appendix I to 35 Ill. Adm. Code 726, and 35 Ill. Adm. Code 726.204.

Method 0030 (November 1986) (Volatile Organic Sampling Train), USEPA-approved for Appendix I to 35 Ill. Adm. Code 721.

Method 0031 (December 1996) (Sampling Method for Volatile Organic Compounds (SMVOC)), USEPA-approved for Appendix I to 35 Ill. Adm. Code 721.

Method 0040 (December 1996) (Sampling of Principal Organic Hazardous Constituents from Combustion Sources Using Tedlar® Bags), USEPA-approved for Appendix I to 35 Ill. Adm. Code 721.

Method 0050 (December 1996) (Isokinetic HCl/Cl<sub>2</sub> Emission Sampling Train), USEPA-approved for Appendix I to 35 Ill. Adm. Code 721, Appendix I to 35 Ill. Adm. Code 726, and 35 Ill. Adm. Code 726.207.

Method 0051 (December 1996) (Midget Impinger HCl/Cl<sub>2</sub> Emission Sampling Train), USEPA-approved for Appendix I to 35 Ill. Adm. Code 721, Appendix I to 35 Ill. Adm. Code 726, and 35 Ill. Adm. Code 726.207.

Method 0060 (December 1996) (Determination of Metals in Stack Emissions), USEPA-approved for Appendix I to

35 Ill. Adm. Code 721, Appendix I to 35 Ill. Adm. Code 726, and 35 Ill. Adm. Code 726.206.

Method 0061 (December 1996) (Determination of Hexavalent Chromium Emissions from Stationary Sources), USEPA-approved for Appendix I to 35 Ill. Adm. Code 721, 35 Ill. Adm. Code 726.206, and Appendix I to 35 Ill. Adm. Code 726.

Method 1010A (November 2004) (Test Methods for Flash Point by Pensky-Martens Closed Cup Tester), USEPA-approved for Appendix I to 35 Ill. Adm. Code 721.

Method 1020B (November 2004) (Standard Test Methods for Flash Point by Setaflash (Small Scale) Closed-cup Apparatus), USEPA-approved for Appendix I to 35 Ill. Adm. Code 721.

Method 1110A (November 2004) (Corrosivity Toward Steel), USEPA-approved for 35 Ill. Adm. Code 721.122 and Appendix I to 35 Ill. Adm. Code 721.

Method 1310B (November 2004) (Extraction Procedure (EP) Toxicity Test Method and Structural Integrity Test), USEPA-approved for Appendix I to 35 Ill. Adm. Code 721 and referenced in Appendix I to 35 Ill. Adm. Code 728.

Method 1311 (November 1992) (Toxicity Characteristic Leaching Procedure), USEPA-approved for Appendix I to 35 Ill. Adm. Code 721; for 35 Ill. Adm. Code 721.124, 728.107, and 728.140; and for Table T to 35 Ill. Adm. Code 728.

Method 1312 (November 1994) (Synthetic Precipitation Leaching Procedure), USEPA-approved for Appendix I to 35 Ill. Adm. Code 721.

Method 1320 (November 1986) (Multiple Extraction Procedure), USEPA-approved for Appendix I to 35 Ill. Adm. Code 721.

Method 1330A (November 1992) (Extraction Procedure for Oily Wastes), USEPA-approved for Appendix I to 35 Ill. Adm. Code 721.

Method 9010C (November 2004) (Total and Amenable Cyanide: Distillation), USEPA-approved for Appendix I to 35 Ill. Adm. Code 721 and 35 Ill. Adm. Code 728.140,

728.144, and 728.148, referenced in Table H to 35 Ill. Adm. Code 728.

Method 9012B (November 2004) (Total and Amenable Cyanide (Automated Colorimetric, with Off-Line Distillation)), USEPA-approved for Appendix I to 35 Ill. Adm. Code 721 and 35 Ill. Adm. Code 728.140, 728.144, and 728.148, referenced in Table H to 35 Ill. Adm. Code 728.

Method 9040C (November 2004) (pH Electrometric Measurement), USEPA-approved for 35 Ill. Adm. Code 721.122 and Appendix I to 35 Ill. Adm. Code 721.

Method 9045D (November 2004) (Soil and Waste pH), USEPA-approved for Appendix I to 35 Ill. Adm. Code 721.

Method 9060A (November 2004) (Total Organic Carbon), USEPA-approved for Appendix I to 35 Ill. Adm. Code 721 and 35 Ill. Adm. Code 721.934, 721.963, 724.934, 724.963, 725.934, and 725.963.

Method 9070A (November 2004) (n-Hexane Extractable Material (HEM) for Aqueous Samples), USEPA-approved for Appendix I to 35 Ill. Adm. Code 721.

Method 9071B (April 1998) (n-Hexane Extractable Material (HEM) for Sludge, Sediment, and Solid Samples), USEPA-approved for Appendix I to 35 Ill. Adm. Code 721.

Method 9095B (November 2004) (Paint Filter Liquids Test), USEPA-approved for 35 Ill. Adm. Code 720.110; Appendix I to 35 Ill. Adm. Code 721; and 35 Ill. Adm. Code 724.290, 724.414, 725.290, 725.414, 725.981, 727.290, and 728.132.

BOARD NOTE: Also available on the Internet for free download in segments in PDF format from the USEPA website at: [www.epa.gov/SW-846](http://www.epa.gov/SW-846).

OECD. Organisation for Economic Co-operation and Development, Environment Directorate, 2 rue Andre Pascal, F-75775 Paris Cedex 16, France, +33 (0) 1 45 24 81 67 ([www.oecd.org](http://www.oecd.org)), also OECD Washington Center, 2001 L Street, NW, Suite 650, Washington, DC 20036-4922, 202-785-6323 or 800-456-6323 ([www.oecdwash.org](http://www.oecdwash.org)):

OECD Guidance Manual. "Guidance Manual for the Implementation of Council Decision C(2001)107/FINAL, as

Amended, on the Control of Transboundary Movements of Wastes Destined for Recovery Operations,” 2009 (also called “Guidance Manual for the Control of Transboundary Movements of Recoverable Materials” in OECD documents), but only the following segments, which set forth the substantive requirements of OECD decision C(2001)107/FINAL (June 14, 2001), as amended by C(2001)107/ADD1 (February 28, 2002), C(2004)20 (March 9, 2004), C(2005)141 (December 2, 2005), and C(2008)156 (December 4, 2008):

“Annex A: OECD Decision C(2001)107/FINAL, as Amended by C(2004)20; C(2005)141 and C(2008)156” (also called “Revision of Council Decision C(92)39/FINAL on the Control of Transboundary Movements of Wastes Destined for Recovery Operations,” within the text of Annex A, and “Decision of the Council Concerning the Control of Transboundary Movements of Wastes Destined for Recovery Operations” in the original OECD decision source document, C(2001)107/FINAL (June 14, 2001), as amended by C(2001)107/ADD1 (February 28, 2002), C(2004)20 (March 9, 2004), C(2005)141 (December 2, 2005), and C(2008)156 (December 4, 2008)).

“Annex B: OECD Consolidated List of Wastes Subject to the Green Control Procedure” (individually referred to as “Annex B to OECD Guidance Manual” in 35 Ill. Adm. Code 722), combining Appendix 3 to OECD decision C(2001)107/FINAL, as amended as described above, together with the text of Annex IX (“List B”) to the “Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal” (“Basel Convention”).

“Annex C: OECD Consolidated List of Wastes Subject to the Amber Control Procedure” (individually referred to as “Annex C to OECD Guidance Manual” in 35 Ill. Adm. Code 722), combining Appendix 4 to OECD decision C(2001)107/FINAL, as amended, together with the text of Annexes II (“Categories of Wastes Requiring Special Consideration”) and VIII (“List A”) to the Basel Convention.

BOARD NOTE: The OECD Guidance Manual is available online from OECD at [www.oecd.org/dataoecd/57/1/42262259.pdf](http://www.oecd.org/dataoecd/57/1/42262259.pdf). The OECD and the Basel Convention consider the OECD Guidance Manual unofficial text of these documents. Despite this unofficial status, the Board has chosen to follow USEPA’s lead and

incorporate the OECD Guidance Manual by reference, instead of separately incorporating the OECD decision C(2001)107/FINAL (with its subsequent amendments: OECD decisions C(2001)107/ADD1, C(2004)20, C(2005)141, and C(2008)156) and the Basel Convention by reference. Use of the OECD Guidance Manual eases reference to the documents, increases access to the documents, and facilitates future updates to this incorporation by reference. All references to “OECD C(2001)107/FINAL” in the text of 35 Ill. Adm. Code 722 refer to both the OECD decision and the Basel Convention that the OECD decision references. The OECD Guidance Manual includes as Annex A the full text of OECD document C(2001)107/FINAL, with amendments, and Annexes B and C set forth lists of wastes subject to Green control procedures and wastes subject to Amber control procedures, respectively, which consolidate the wastes from C(2001)107/FINAL together with those from the Basel Convention.

OECD Guideline for Testing of Chemicals, “Ready Biodegradability,” Method 301B (July 17, 1992), “CO<sub>2</sub> Evolution (Modified Sturm Test),” referenced in 35 Ill. Adm. Code 724.414.

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), referenced in 35 Ill. Adm. Code 724.293.

USDOD. Available from the United States Department of Defense:

“DOD Ammunition and Explosives Safety Standards” (DOD 6055.09-STD), as in effect on February 29, 2008, referenced in 35 Ill. Adm. Code 726.305.

“The Motor Vehicle Inspection Report” (DD Form 626), as in effect in March 2007, referenced in 35 Ill. Adm. Code 726.303.

“Requisition Tracking Form” (DD Form 1348), as in effect in July 1991, referenced in 35 Ill. Adm. Code 726.303.

“The Signature and Tally Record” (DD Form 1907), as in effect in November 2006, referenced in 35 Ill. Adm. Code 726.303.

“Dangerous Goods Shipping Paper/Declaration and Emergency Response Information for Hazardous Materials Transported by Government Vehicles” (DD Form 836), as in effect in December 2007, referenced in 35 Ill. Adm. Code 726.303.

BOARD NOTE: DOD 6055.09-STD is available on-line for download in pdf format from <http://www.ddesb.pentagon.mil>. DD Form 1348, DD Form 1907, DD Form 836, and DOD 6055.09-STD are available on-line for download in pdf format from <http://www.dtic.mil/whs/directives/infomgt/forms/formsprogram.htm>.

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

“Inventory of Injection Wells,” USEPA Form 7520-16 (Revised 8-01), referenced in 35 Ill. Adm. Code 704.148 and 704.283.

“Technical Assistance Document: Corrosion, Its Detection and Control in Injection Wells,” USEPA publication number EPA-570/9-87-002, August 1987, referenced in 35 Ill. Adm. Code 730.165.

USEPA, Receptor Analysis Branch. 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, USEPA publication number EPA-450/R-92-019, USEPA-approved for Appendix I to 35 Ill. Adm. Code 726.

BOARD NOTE: Also available for purchase from NTIS (see above) and on the Internet for free download as a WordPerfect document from the USEPA website at following Internet address: [www.epa.gov/scram001/guidance/guide/scrng.wpd](http://www.epa.gov/scram001/guidance/guide/scrng.wpd).

USEPA Region 6. Available from United States Environmental Protection Agency, Region 6, Multimedia Permitting and Planning Division, 1445 Ross Avenue, Dallas, TX 75202 (phone: 214-665-7430):

“EPA RCRA Delisting Program—Guidance Manual for the Petitioner,” March 23, 2000, referenced in Section 720.122.

USGSA. Available from the United States Government Services Administration:

Government Bill of Lading (GBL) (GSA Standard Form 1103, rev 9/2003, supplemented as necessary with GSA Standard Form 1109, rev 09/1998), referenced in Section 726.303.

BOARD NOTE: Available on-line for download in various formats from [www.gsa.gov/forms/forms.htm](http://www.gsa.gov/forms/forms.htm).

- 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 20.2006-~~(2014)~~ (2015) (Transfer for Disposal and Manifests), referenced in 35 Ill. Adm. Code 726.425 and 726.450.

Table II, column 2 in appendix B to 10 CFR 20-~~(2014)~~ (2015) (Water Effluent Concentrations), referenced in 35 Ill. Adm. Code 702.110, 730.103, and 730.151.

Appendix G to 10 CFR 20-~~(2014)~~ (2015) (Requirements for Transfers of Low-Level Radioactive Waste Intended for Disposal at Licensed Land Disposal Facilities and Manifests), referenced in 35 Ill. Adm. Code 726.440.

10 CFR 71-~~(2014)~~ (2015) (Packaging and Transportation of Radioactive Material), referenced generally in 35 Ill. Adm. Code 726.430.

10 CFR 71.5-~~(2014)~~ (2015) (Transportation of Licensed Material), referenced in 35 Ill. Adm. Code 726.425.

33 CFR 153.203-~~(2014)~~ (2015) (Procedure for the Notice of Discharge), referenced in 35 Ill. Adm. Code 723.130 and 739.143.

40 CFR 3.3-~~(2014)~~ (2015) (What Definitions Are Applicable to This Part?), referenced in Section 720.104.

40 CFR 3.10-~~(2014)~~ (2015) (What Are the Requirements for Electronic Reporting to EPA?), referenced in Section 720.104.

40 CFR 3.2000-~~(2014)~~ (2015) (What Are the Requirements Authorized State, Tribe, and Local Programs' Reporting Systems Must Meet?), referenced in Section 720.104.

40 CFR 51.100(ii)-~~(2014)~~ (2015) (Definitions), referenced in 35 Ill. Adm. Code 726.200.

Appendix W to 40 CFR 51-~~(2014)~~ (2015) (Guideline on Air Quality Models), referenced in 35 Ill. Adm. Code 726.204.

BOARD NOTE: Also available from NTIS (see above for contact information) as "Guideline on Air Quality Models," Revised 1986, USEPA publication number EPA-450/12-78-027R, NTIS document numbers PB86-245248 (Guideline) and PB88-150958 (Supplement).

Appendix B to 40 CFR 52.741-~~(2014)~~ (2015) (VOM Measurement Techniques for Capture Efficiency), referenced in 35 Ill. Adm. Code



703.213, 703.352, 721.984, 721.986, 721.989, 724.982, 724.984, 724.986, 724.989, 725.983, 725.985, 725.987, and 725.990.

40 CFR 60-~~(2014)~~ (2015) (Standards of Performance for New Stationary Sources), referenced generally in 35 Ill. Adm. Code 721.104, 721.950, 721.964, 721.980, 724.964, 724.980, 725.964, and 725.980.

Subpart VV of 40 CFR 60-~~(2014)~~ (2015) (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry), referenced in 35 Ill. Adm. Code 721.989, 724.989, and 725.990.

Appendix A to 40 CFR 60-~~(2014)~~ (2015) (Test Methods), referenced generally in 35 Ill. Adm. Code 726.205 (in addition to the references cited below for specific methods):

Method 1 (Sample and Velocity Traverses for Stationary Sources), referenced in 35 Ill. Adm. Code 726.205.

Method 2 (Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)), referenced in 35 Ill. Adm. Code 721.934, 724.933, 724.934, 725.933, 725.934, and 726.205.

Method 2A (Direct Measurement of Gas Volume through Pipes and Small Ducts), referenced in 35 Ill. Adm. Code 721.933, 724.933, 725.933, and 726.205.

Method 2B (Determination of Exhaust Gas Volume Flow Rate from Gasoline Vapor Incinerators), referenced in 35 Ill. Adm. Code 726.205.

Method 2C (Determination of Gas Velocity and Volumetric Flow Rate in Small Stacks or Ducts (Standard Pitot Tube)), referenced in 35 Ill. Adm. Code 721.933, 724.933, 725.933, and 726.205.

Method 2D (Measurement of Gas Volume Flow Rates in Small Pipes and Ducts), referenced in 35 Ill. Adm. Code 721.933, 724.933, 725.933, and 726.205.

Method 2E (Determination of Landfill Gas Production Flow Rate), referenced in 35 Ill. Adm. Code 726.205.

Method 2F (Determination of Stack Gas Velocity and Volumetric Flow Rate with Three-Dimensional Probes), referenced in 35 Ill. Adm. Code 726.205.

Method 2G (Determination of Stack Gas Velocity and Volumetric Flow Rate with Two-Dimensional Probes), referenced in 35 Ill. Adm. Code 726.205.

Method 2H (Determination of Stack Gas Velocity Taking into Account Velocity Decay Near the Stack Wall), referenced in 35 Ill. Adm. Code 726.205.

Method 3 (Gas Analysis for the Determination of Dry Molecular Weight), referenced in 35 Ill. Adm. Code 724.443 and 726.205.

Method 3A (Determination of Oxygen and Carbon Dioxide Concentrations in Emissions from Stationary Sources (Instrumental Analyzer Procedure)), referenced in 35 Ill. Adm. Code 726.205.

Method 3B (Gas Analysis for the Determination of Emission Rate Correction Factor or Excess Air), referenced in 35 Ill. Adm. Code 726.205.

Method 3C (Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources), referenced in 35 Ill. Adm. Code 726.205.

Method 4 (Determination of Moisture Content in Stack Gases), referenced in 35 Ill. Adm. Code 726.205.

Method 5 (Determination of Particulate Matter Emissions from Stationary Sources), referenced in 35 Ill. Adm. Code 726.205.

Method 5A (Determination of Particulate Matter Emissions from the Asphalt Processing and Asphalt Roofing Industry), referenced in 35 Ill. Adm. Code 726.205.

Method 5B (Determination of Nonsulfuric Acid Particulate Matter Emissions from Stationary Sources), referenced in 35 Ill. Adm. Code 726.205.

Method 5D (Determination of Particulate Matter Emissions from Positive Pressure Fabric Filters), referenced in 35 Ill. Adm. Code 726.205.

Method 5E (Determination of Particulate Matter Emissions from the Wool Fiberglass Insulation Manufacturing Industry), referenced in 35 Ill. Adm. Code 726.205.

Method 5F (Determination of Nonsulfate Particulate Matter Emissions from Stationary Sources), referenced in 35 Ill. Adm. Code 726.205.

Method 5G (Determination of Particulate Matter Emissions from Wood Heaters (Dilution Tunnel Sampling Location)), referenced in 35 Ill. Adm. Code 726.205.

Method 5H (Determination of Particulate Emissions from Wood Heaters from a Stack Location), referenced in 35 Ill. Adm. Code 726.205.

Method 5I (Determination of Low Level Particulate Matter Emissions from Stationary Sources), referenced in 35 Ill. Adm. Code 726.205.

Method 18 (Measurement of Gaseous Organic Compound Emissions by Gas Chromatography), referenced in 35 Ill. Adm. Code 721.933, 721.934, 724.933, 724.934, 725.933, and 725.934.

Method 21 (Determination of Volatile Organic Compound Leaks), referenced in 35 Ill. Adm. Code 703.213, 721.934, 721.935, 721.963, 721.983, 724.934, 724.935, 724.963, 725.934, 725.935, 725.963, and 725.984.

Method 22 (Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares), referenced in 35 Ill. Adm. Code 721.933, 724.933, 724.1101, 725.933, 725.1101, and 727.900.

Method 25A (Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer), referenced in 35 Ill. Adm. Code 721.934, 724.934, and 725.985.

Method 25D (Determination of the Volatile Organic Concentration of Waste Samples), referenced in 35 Ill. Adm. Code 721.983, 724.982, 725.983, and 725.984.

Method 25E (Determination of Vapor Phase Organic Concentration in Waste Samples), referenced in 35 Ill. Adm. Code 721.983 and 725.984.

Method 27 (Determination of Vapor Tightness of Gasoline Delivery Tank Using Pressure-Vacuum Test), referenced in 35 Ill. Adm. Code 721.986, 724.986, and 725.987.

40 CFR 61-(~~2014~~) (2015) (National Emission Standards for Hazardous Air Pollutants), referenced generally in 35 Ill. Adm. Code 721.104, 721.933,

721.950, 721.964, 721.980, 724.933, 724.964, 725.933, 725.964, and 725.980.

Subpart V of 40 CFR 61-~~(2014)~~ (2015) (National Emission Standard for Equipment Leaks (Fugitive Emission Sources)), referenced in 35 Ill. Adm. Code 721.989, 724.989, and 725.990.

Subpart FF of 40 CFR 61-~~(2014)~~ (2015) (National Emission Standard for Benzene Waste Operations), referenced in 35 Ill. Adm. Code 724.982 and 725.983.

40 CFR 63-~~(2014)~~ (2015) (National Emission Standards for Hazardous Air Pollutants for Source Categories), referenced generally in 35 Ill. Adm. Code 721.293, 721.933, 721.950, 721.964, 721.980, 724.933, 724.964, 724.980, 725.933, 725.964, 725.980, and 726.200.

Subpart RR of 40 CFR 63-~~(2014)~~ (2015) (National Emission Standards for Individual Drain Systems), referenced in 35 Ill. Adm. Code 721.984, 724.984, 724.985, 725.985, and 725.986.

Subpart EEE of 40 CFR 63 (2000) (National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors), referenced in 35 Ill. Adm. Code 703.280.

Subpart EEE of 40 CFR 63-~~(2014)~~ (2015) (National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors) (includes 40 CFR 63.1206 (When and How Must You Comply with the Standards and Operating Requirements?), 63.1215 (What are the Health-Based Compliance Alternatives for Total Chlorine?), 63.1216 (What are the Standards for Solid-Fuel Boilers that Burn Hazardous Waste?), 63.1217 (What are the Standards for Liquid-Fuel Boilers that Burn Hazardous Waste?), 63.1218 (What are the Standards for Hydrochloric Acid Production Furnaces that Burn Hazardous Waste?), 63.1219 (What are the Replacement Standards for Hazardous Waste Incinerators?), 63.1220 (What are the Replacement Standards for Hazardous Waste-Burning Cement Kilns?), and 63.1221 (What are the Replacement Standards for Hazardous Waste-Burning Lightweight Aggregate Kilns?)), referenced in Appendix A to 35 Ill. Adm. Code 703 and 35 Ill. Adm. Code 703.155, 703.205, 703.208, 703.221, 703.232, 703.320, 703.280, 724.440, 724.701, 724.950, 725.440, and 726.200.

Method 301 (Field Validation of Pollutant Measurement Methods from Various Waste Media) in appendix A to 40 CFR 63-~~(2014)~~ (2015) (Test Methods), referenced in 35 Ill. Adm. Code 721.983 and 725.984.

Appendix C to 40 CFR 63-~~(2014)~~ (2015) (Determination of the Fraction Biodegraded ( $F_{bio}$ ) in a Biological Treatment Unit), referenced in 35 Ill. Adm. Code 725.984.

Appendix D to 40 CFR ~~63-(2014)~~ (2015) (Test Methods), referenced in 35 Ill. Adm. Code 721.983 and 725.984.

40 CFR 136.3 (Identification of Test Procedures)~~-(2014)~~ (2015), referenced in 35 Ill. Adm. Code 702.110, 704.150, 704.187, and 730.103.

40 CFR 144.70~~-(2014)~~ (2015) (Wording of the Instruments), referenced in 35 Ill. Adm. Code 704.240.

40 CFR 232.2~~-(2014)~~ (2015) (Definitions), referenced in 35 Ill. Adm. Code 721.104.

40 CFR 257~~-(2014)~~ (2015) (Criteria for Classification of Solid Waste Disposal Facilities and Practices), referenced in 35 Ill. Adm. Code 739.181.

Subpart B of 40 CFR 257~~-(2014)~~ (2015) (Disposal Standards for the Receipt of Conditionally Exempt Small Quantity Generator (CESQG) Wastes at Non-Municipal Non-Hazardous Waste Disposal Units) (40 CFR 257.5 through 257.30), referenced in 35 Ill. Adm. Code 721.105.

40 CFR 258~~-(2014)~~ (2015) (Criteria for Municipal Solid Waste Landfills), referenced in 35 Ill. Adm. Code 739.181.

40 CFR 260.21(b)~~-(2014)~~ (2015) (Alternative Equivalent Testing Methods), referenced in Section 720.121.

40 CFR 261.151~~-(2014)~~ (2015) (Wording of the Instruments), referenced in 35 Ill. Adm. Code 721.251.

Appendix III to 40 CFR 261~~-(2014)~~ (2015) (Chemical Analysis Test Methods), referenced in 35 Ill. Adm. Code 704.150 and 704.187.

40 CFR 262.53~~-(2014)~~ (2015) (Notification of Intent to Export), referenced in 35 Ill. Adm. Code 722.153.

40 CFR 262.54~~-(2014)~~ (2015) (Special Manifest Requirements), referenced in 35 Ill. Adm. Code 722.154.

40 CFR 262.55~~-(2014)~~ (2015) (Exception Reports), referenced in 35 Ill. Adm. Code 722.155.

40 CFR 262.56~~-(2014)~~ (2015) (Annual Reports), referenced in 35 Ill. Adm. Code 722.156.

40 CFR 262.57~~-(2014)~~ (2015) (Recordkeeping), referenced in 35 Ill. Adm. Code 722.157.

Appendix to 40 CFR 262-~~(2014)~~ (2015) (Uniform Hazardous Waste Manifest and Instructions (EPA Forms 8700-22 and 8700-22A and Their Instructions)), referenced in Appendix A to 35 Ill. Adm. Code 722 and 35 Ill. Adm. Code 724.986 and 725.987.

40 CFR 264.151-~~(2014)~~ (2015) (Wording of the Instruments), referenced in 35 Ill. Adm. Code 724.251 and 727.240.

Appendix I to 40 CFR 264-~~(2014)~~ (2015) (Recordkeeping Instructions), referenced in Appendix A to 35 Ill. Adm. Code 724.

Appendix IV to 40 CFR 264-~~(2014)~~ (2015) (Cochran's Approximation to the Behrens-Fisher Students' T-Test), referenced in Appendix D to 35 Ill. Adm. Code 724.

Appendix V to 40 CFR 264-~~(2014)~~ (2015) (Examples of Potentially Incompatible Waste), referenced in Appendix E to 35 Ill. Adm. Code 724 and 35 Ill. Adm. Code 727.270.

Appendix VI to 40 CFR 264-~~(2014)~~ (2015) (Political Jurisdictions in Which Compliance with § 264.18(a) Must Be Demonstrated), referenced in 35 Ill. Adm. Code 703.306, 724.118, and 727.110.

Appendix I to 40 CFR 265-~~(2014)~~ (2015) (Recordkeeping Instructions), referenced in Appendix A to 35 Ill. Adm. Code 725.

Appendix III to 40 CFR 265-~~(2014)~~ (2015) (EPA Interim Primary Drinking Water Standards), referenced in Appendix C to 35 Ill. Adm. Code 725.

Appendix IV to 40 CFR 265-~~(2014)~~ (2015) (Tests for Significance), referenced in Appendix D to 35 Ill. Adm. Code 725.

Appendix V to 40 CFR 265-~~(2014)~~ (2015) (Examples of Potentially Incompatible Waste), referenced in 35 Ill. Adm. Code 725.277, 725.301, 725.330, 725.357, 725.382, and 725.413 and Appendix E to 35 Ill. Adm. Code 725.

Appendix IX to 40 CFR 266-~~(2014)~~ (2015) (Methods Manual for Compliance with the BIF Regulations), referenced generally in Appendix I to 35 Ill. Adm. Code 726.

Section 4.0 (Procedures for Estimating the Toxicity Equivalence of Chlorinated Dibenzo-p-Dioxin and Dibenzofuran Congeners), referenced in 35 Ill. Adm. Code 726.200 and 726.204.

Section 5.0 (Hazardous Waste Combustion Air Quality Screening Procedure), referenced in 35 Ill. Adm. Code 726.204 and 726.206.

Section 7.0 (Statistical Methodology for Bevill Residue Determinations), referenced in 35 Ill. Adm. Code 726.212.

BOARD NOTE: Also available from NTIS (see above for contact information) as “Methods Manual for Compliance with BIF Regulations: Burning Hazardous Waste in Boilers and Industrial Furnaces,” December 1990, USEPA publication number EPA-530/SW-91-010, NTIS document number PB91-120006.

40 CFR 267.151-~~(2014)~~ (2015) (Wording of the Instruments), referenced in 35 Ill. Adm. Code 727.240.

40 CFR 270.5-~~(2014)~~ (2015) (Noncompliance and Program Reporting by the Director), referenced in 35 Ill. Adm. Code 703.305.

40 CFR 302 (2015) (Designation, Reportable Quantities, and Notification), referenced in 35 Ill. Adm. Code 721.293.

40 CFR 711.15(a)(4)(i)(C) (2015) (Designation, Reportable Quantities, and Notification), referenced in 35 Ill. Adm. Code 721.104.

40 CFR 761-~~(2014)~~ (2015) (Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions), referenced generally in 35 Ill. Adm. Code 728.145.

40 CFR 761.3-~~(2014)~~ (2015) (Definitions), referenced in 35 Ill. Adm. Code 728.102 and 739.110.

40 CFR 761.60-~~(2014)~~ (2015) (Disposal Requirements), referenced in 35 Ill. Adm. Code 728.142.

40 CFR 761.65-~~(2014)~~ (2015) (Storage for Disposal), referenced in 35 Ill. Adm. Code 728.150.

40 CFR 761.70-~~(2014)~~ (2015) (Incineration), referenced in 35 Ill. Adm. Code 728.142.

Subpart B of 49 CFR 107-~~(2013)~~ (2014) (Exemptions), referenced generally in 35 Ill. Adm. Code 724.986 and 725.987.

49 CFR 171-~~(2013)~~, as amended at 78 Fed. Reg. 60745 (Oct. 2, 2013), 78 Fed. Reg. 65454 (Oct. 31, 2013), and 79 Fed. Reg. 15033 (Mar. 18, 2014) (2014) (General Information, Regulations, and Definitions), referenced generally in 35 Ill. Adm. Code 721.104, 733.118, 733.138, 733.152, and 739.143.

49 CFR 171.3-~~(2013)~~ (2014) (Hazardous Waste), referenced in 35 Ill. Adm. Code 722.133.

49 CFR 171.8-~~(2013)~~, as amended at 78 Fed. Reg. 65454 (Oct. 31, 2013) (2014)(Definitions and Abbreviations), referenced in 35 Ill. Adm. Code 733.118, 733.138, 733.152, 733.155, and 739.143.

49 CFR 171.15-~~(2013)~~ (2014) (Immediate Notice of Certain Hazardous Materials Incidents), referenced in 35 Ill. Adm. Code 723.130 and 739.143.

49 CFR 171.16-~~(2013)~~ (2014) (Detailed Hazardous Materials Incident Reports), referenced in 35 Ill. Adm. Code 723.130 and 739.143.

49 CFR 172-~~(2013)~~, as amended at 78 Fed. Reg. 60745 (Oct. 2, 2013), 78 Fed. Reg. 65454 (Oct. 31, 2013), and 78 Fed. Reg. 69310 (Nov. 19, 2013), and 79 Fed. Reg. 15033 (Mar. 18, 2014) (2014) (Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements), referenced generally in 35 Ill. Adm. Code 721.104, 721.986, 722.131, 722.132, 724.986, 725.987, 733.114, 733.118, 733.134, 733.138, 733.152, 733.155, and 739.143.

49 CFR 172.304-~~(2013)~~ (2014) (Marking Requirements), referenced in 35 Ill. Adm. Code 722.132.

Subpart C of 49 CFR 172-~~(2013)~~ (2014) (Shipping Papers), referenced in 35 Ill. Adm. Code 722.124.

Subpart F of 49 CFR 172-~~(2013)~~, as amended at 78 Fed. Reg. 60745 (Oct. 2, 2013) (2014) (Placarding), referenced in 35 Ill. Adm. Code 722.133.

49 CFR 173-~~(2013)~~, as amended at 78 Fed. Reg. 60745 (Oct. 2, 2013) and 78 Fed. Reg. 65454 (Oct. 31, 2013) (2014) (Shippers—General Requirements for Shipments and Packages), referenced generally in 35 Ill. Adm. Code 721.104, 721.986, 722.130, 724.416, 724.986, 725.416, 725.987, 733.118, 733.138, 733.152, and 739.143.

49 CFR 173.2-~~(2013)~~ (2014) (Hazardous Materials Classes and Index to Hazard Class Definitions), referenced in 35 Ill. Adm. Code 733.152.

49 CFR 173.12-~~(2013)~~ (2014) (Exceptions for Shipments of Waste Materials), referenced in 35 Ill. Adm. Code 724.416, 724.986, 725.416, and 725.987.

49 CFR 173.28-~~(2013)~~ (2014) (Reuse, Reconditioning, and Remanufacture of Packagings), referenced in 35 Ill. Adm. Code 725.273.

49 CFR 173.50-~~(2013)~~ (2014) (Class 1—Definitions), referenced in 35 Ill. Adm. Code 721.123.



49 CFR 173.54-~~(2013)~~ (2014) (Forbidden Explosives), referenced in 35 Ill. Adm. Code 721.123.

49 CFR 173.115-~~(2013)~~ (2014) (Class 2, Divisions 2.1, 2.2, and 2.3—Definitions), referenced in 35 Ill. Adm. Code 721.121.

49 CFR 173.127-~~(2013)~~ (2014) (Class 2, Divisions 2.1, 2.2, and 2.3—Definitions), referenced in 35 Ill. Adm. Code 721.121.

49 CFR 174-~~(2013)~~ (2014) (Carriage by Rail), referenced generally in 35 Ill. Adm. Code 733.118, 733.138, 733.152, and 739.143.

49 CFR 175-~~(2013)~~, as amended at 78 Fed. Reg. 65454 (Oct. 31, 2013) and 79 Fed. Reg. 15033 (Mar. 18, 2014) (2014) (Carriage by Aircraft), referenced generally in 35 Ill. Adm. Code 733.118, 733.138, 733.152, and 739.143.

49 CFR 176-~~(2013)~~, as amended at 78 Fed. Reg. 65454 (Oct. 31, 2013) (2014) (Carriage by Vessel), referenced generally in 35 Ill. Adm. Code 733.118, 733.138, 733.152, and 739.143.

49 CFR 177-~~(2013)~~, as amended at 78 Fed. Reg. 60745 (Oct. 2, 2013) (2014) (Carriage by Public Highway), referenced generally in 35 Ill. Adm. Code 733.118, 733.138, 733.152, and 739.143.

49 CFR 177.817-~~(2013)~~ (2014) (Shipping Papers), referenced in 35 Ill. Adm. Code 722.124.

49 CFR 178-~~(2013)~~, as amended at 78 Fed. Reg. 60745 (Oct. 2, 2013), 78 Fed. Reg. 65454 (Oct. 31, 2013), and 79 Fed. Reg. 15033 (Mar. 18, 2014) (2014) (Specifications for Packagings), referenced generally in 35 Ill. Adm. Code 721.104, 721.986, 722.130, 724.416, 724.986, 725.416, 725.987, 733.118, 733.138, 733.152, and 739.143.

49 CFR 179-~~(2013)~~ (2014) (Specifications for Tank Cars), referenced in 35 Ill. Adm. Code 721.104, 721.986, 722.130, 724.416, 724.986, 725.416, 725.987, 733.118, 733.138, 733.152, and 739.143.

49 CFR 180-~~(2013)~~ (2014) (Continuing Qualification and Maintenance of Packagings), referenced generally in 35 Ill. Adm. Code 721.986, 724.986, 725.987, 733.118, 733.138, 733.152, and 739.143.

49 CFR 190-~~(2013)~~ (2014) (Pipeline Safety Programs and Rulemaking Procedures), referenced generally in 35 Ill. Adm. Code 721.104.

49 CFR 191-~~(2013)~~ (2014) (Transportation of Natural and Other Gas by Pipeline: Annual Reports, Incident Reports, and Safety-Related Condition Reports), referenced generally in 35 Ill. Adm. Code 721.104.

49 CFR 192-~~(2013)~~ (2014) (Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards), referenced generally in 35 Ill. Adm. Code 721.104.

49 CFR 193-~~(2013)~~ (2014) (Liquefied Natural Gas Facilities: Federal Safety Standards), referenced generally in 35 Ill. Adm. Code 721.104.

49 CFR 194-~~(2013)~~ (2014) (Response Plans for Onshore Oil Pipelines), referenced generally in 35 Ill. Adm. Code 721.104.

49 CFR 195-~~(2013)~~ (2014) (Transportation of Hazardous Liquids by Pipeline), referenced generally in 35 Ill. Adm. Code 721.104.

49 CFR 196 (2014) (Protection of Underground Pipelines from Excavation Activity), referenced generally in 35 Ill. Adm. Code 721.104.

49 CFR 198-~~(2013)~~ (2014) (Regulations for Grants to Aid State Pipeline Safety Programs), referenced generally in 35 Ill. Adm. Code 721.104.

49 CFR 199-~~(2013)~~ (2014) (Drug and Alcohol Testing), referenced generally in 35 Ill. Adm. Code 721.104.

c) Federal Statutes:

Section 11 of the Atomic Energy Act of 1954 (42 USC 2014)-~~(2011)~~ (2013), referenced in 35 Ill. Adm. Code 721.104 and 726.310.

Sections 301, 304, 307, and 402 of the Clean Water Act (33 USC 1311, 1314, and 1337, and 1342) (2013), referenced in 35 Ill. Adm. Code 721.293.

Sections 201(v), 201(w), and 512(j) of the Federal Food, Drug, and Cosmetic Act (FFDCA; 21 USC 321(v), 321(w), and 360b(j))-~~(2012)~~ (2013), referenced in Section 720.110 and 35 Ill. Adm. Code 733.109.

Section 1004 of the Resource Conservation and Recovery Act (42 USC 6903) (2013), referenced in 35 Ill. Adm. Code 721.951 and 721.981.

Chapter 601 of subtitle VIII of 49 USC (49 USC 60101 through 60140) ~~(2011)~~ (2013), referenced in 35 Ill. Adm. Code 721.104.

Section 1412 of the Department of Defense Authorization Act of 1986 (50 USC 1521(j)(1))-~~(2011)~~ (2012), referenced in 35 Ill. Adm. Code 726.301.

d) This Section incorporates no later editions or amendments.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## SUBPART C: RULEMAKING PETITIONS AND OTHER PROCEDURES

### **Section 720.130 Procedures for Solid Waste Determinations and Non-Waste Determinations**

In accordance with the standards and criteria in Sections 720.131 and 720.134 and the procedures in Section 720.133, the Board will determine on a case-by-case basis that the following recycled materials are not solid wastes:

- a) Materials that are accumulated speculatively without sufficient amounts being recycled (as defined in Section 721.101(c)(8));
- b) Materials that are reclaimed and then reused within the original production process in which they were generated;
- c) Materials that have been reclaimed but must be reclaimed further before the materials are completely recovered;
- d) Hazardous secondary materials that are reclaimed in a continuous industrial process; and
- e) Hazardous secondary materials that are indistinguishable in all relevant aspects from a product or intermediate.
- f) Hazardous secondary materials that are transferred for reclamation under 35 Ill. Adm. Code 721.104(a)(24) and are managed at a verified reclamation facility or verified intermediate facility where the management of the hazardous secondary materials is not regulated by any of 35 Ill. Adm. Code 724, 725, 726, or 727.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 720.131 Solid Waste Determinations**

- a) The Board will determine that those materials that are accumulated speculatively without sufficient amounts being recycled are not solid wastes if the applicant demonstrates that sufficient amounts of the material will be recycled or transferred for recycling in the following year. Such a determination is valid only for the following year, but can be renewed, on an annual basis, by filing a new application. This determination will be based on the following criteria:
  - 1) The manner in which the material is expected to be recycled, when the material is expected to be recycled, and whether this expected disposition is likely to occur (for example, because of past practice, market factors, the nature of the material or contractual arrangements for recycling);
  - 2) The reason that the applicant has accumulated the material for one or more years without recycling 75 percent of the volume accumulated at the beginning of the year;

- 3) The quantity of material already accumulated and the quantity expected to be generated and accumulated before the material is recycled;
  - 4) The extent to which the material is handled to minimize loss; and
  - 5) Other relevant factors.
- b) The Board will determine that those materials that are reclaimed and then reused as feedstock within the original production process in which the materials were generated are not solid wastes if the reclamation operation is an essential part of the production process. This determination will be based on the following criteria:
- 1) How economically viable the production process would be if it were to use virgin materials, rather than reclaimed materials;
  - 2) The extent to which the material is handled before reclamation to minimize loss;
  - 3) The time periods between generating the material and its reclamation, and between reclamation and return to the original primary production process;
  - 4) The location of the reclamation operation in relation to the production process;
  - 5) Whether the reclaimed material is used for the purpose for which it was originally produced when it is returned to the original process, and whether it is returned to the process in substantially its original form;
  - 6) Whether the person that generates the material also reclaims it; and
  - 7) Other relevant factors.
- c) The Board will determine, as provided in Section 720.133, that those hazardous secondary materials that have been partially reclaimed but must be reclaimed further before recovery is completed are not solid wastes if, after initial the partial reclamation, the resulting material is has produced a commodity-like (even though it is not yet a commercial product, and has to be reclaimed further) material. This A determination that a partially-reclaimed material for which the determination is sought is commodity-like will be based on whether the hazardous secondary material is legitimately recycled, as specified in Section 720.143, and on whether all of the following decision criteria are satisfied:
- 1) The Whether the degree of processing partial reclamation the material has undergone and the degree or further processing that is required is substantial, as demonstrated by using a partial reclamation process other than the process that generated the hazardous secondary material;

- 2) ~~The value of~~ Whether the partially-reclaimed material after has sufficient economic value that it has been reclaimed will be purchased for further reclamation;
  - 3) ~~The degree to which~~ Whether the partially-reclaimed material is like an analogous a viable substitute for a product or intermediate produced from virgin or raw material materials which is used in subsequent production steps;
  - 4) ~~The extent to which an end~~ Whether there is a market for the partially-reclaimed material is guaranteed, as demonstrated by known customers who are further reclaiming the material (e.g., records of sales or contracts and evidence of subsequent use, such as bills of lading); and
  - 5) ~~The extent to which~~ Whether the partially-reclaimed material is handled to minimize loss;
  - 6) ~~Other relevant factors.~~
- d) Where the management of a hazardous secondary material is not regulated by any of 35 Ill. Adm. Code 724, 725, 726, or 727, the Board will grant a solid waste determination, as provided in Section 720.133, from classifying as a solid waste those hazardous secondary materials that are transferred for reclamation under 35 Ill. Adm. Code 721.4(a)(24) and which are managed at a verified reclamation facility or verified intermediate facility. The Board's determination will be based on the following criteria:
- 1) The reclamation facility or intermediate facility has demonstrated that the reclamation process for the hazardous secondary materials is legitimate pursuant to Section 720.143;
  - 2) The reclamation facility or intermediate facility satisfies the financial assurance condition in 35 Ill. Adm. Code 721.4(a)(24)(F)(vi);
  - 3) The reclamation facility or intermediate facility has not been subject to a formal enforcement action in the previous three years and must not be classified as a significant non-complier under RCRA Subtitle C, or the facility has provided credible evidence that the facility will manage the hazardous secondary materials properly. Credible evidence may include a demonstration that the facility has taken remedial steps to address the violations and prevent future violations, or that the violations are not relevant to the proper management of the hazardous secondary materials;
  - 4) The intermediate or reclamation facility has the equipment and trained personnel needed to safely manage the hazardous secondary material, and the facility meets emergency preparedness and response requirements under Subpart M of 35 Ill. Adm. Code 721;

- 5) If residuals are generated from the reclamation of the excluded hazardous secondary materials, the reclamation facility has the permits required (if any) to manage the residuals, the facility has a contract with an appropriately permitted facility to dispose of the residuals, or the facility has presented credible evidence that the residuals will be managed in a manner that is protective of human health and the environment; and
- 6) The intermediate or reclamation facility has adequately addressed the potential for risk to proximate populations from unpermitted releases of the hazardous secondary material to the environment (i.e., releases that are not covered by a permit, such as a permit to discharge to water or air), which may include, but are not limited to, potential releases through surface transport by precipitation runoff, releases to soil and groundwater, wind-blown dust, fugitive air emissions, and catastrophic unit failures), and the facility has included consideration of potential cumulative risks from other nearby potential stressors.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 720.133 Procedures for Determinations**

The Board will use the procedures of Subpart D of 35 Ill. Adm. Code 104 for determining whether a material is a solid waste, for determining whether a particular enclosed flame combustion device is a boiler, or for evaluating an application for a non-waste determination.

- a) The application must address the relevant criteria contained in Section 720.131, 720.132, or 720.134, as applicable.
- b) This subsection (b) corresponds with 40 CFR 260.33(b), which pertains to the USEPA procedure for review of petitions. This statement maintains structural consistency with USEPA rules.

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- b) This subsection (b) corresponds with 40 CFR 260.33(b), which pertains to the USEPA procedure for review of petitions. This statement maintains structural consistency with USEPA rules.
- c) ~~For non-waste determinations, in~~ Changed Circumstances.

- 1) In the event of a change in circumstances that affects how a hazardous secondary material meets the relevant criteria contained in Section 720.131, 720.132, or 720.134 upon which a solid waste or non-waste determination has been based, the applicant must re-apply to the Board for a formal determination that send a description of the change in circumstances to the Board as a petition for adjusted standard that requests modification of the previously granted solid waste, boiler, or non-waste determination under which the petitioner operates or, in the alternative, a Board order that no such modification is necessary.
  - 2) The Board will determine, based on the record, whether the hazardous secondary material continues to meet the relevant criteria and therefore is not a that justify exclusion from definition as solid waste and issue an appropriate order granting or denying the petition.
- d) A solid waste, boiler, or non-waste determination is effective for a fixed term not to exceed ten years, except as provided in this subsection (d). No later than six months prior to the end of this term, facilities must re-apply for a solid waste, boiler, or non-waste determination. If a facility owner or operator re-applies for a solid waste, boiler, or non-waste determination no later than six months prior to expiration of a solid waste, boiler, or non-waste determination, the facility may continue to operate under an expired solid waste, boiler, or non-waste determination until receiving a decision on the re-application from the Board.
- e) A facility that receives a solid waste, boiler, or non-waste determination must provide notification, as required by Section 720.142.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 720.134 Non-Waste Determinations**

- a) A person generating, managing, or reclaiming hazardous secondary material may petition the Board pursuant to this Section, Section 720.133 and Section 28.2 of the Act [415 ILCS 5/28.2] for an adjusted standard that is a formal determination that a hazardous secondary material is not discarded and therefore is not a solid waste. The Board's adjusted standard determination will be based on the criteria contained in either subsection (b) or (c) ~~of this Section~~, as applicable. If the Board denies the petition, the hazardous secondary material might still be eligible for a solid waste determination pursuant to Section 720.131 or an exclusion. A determination made by the Board pursuant to this Section becomes effective upon occurrence of the first of the following two events:
- 1) After USEPA has authorized Illinois to administer this segment of the hazardous waste regulations, the determination is effective upon issuance of the Board order that grants the non-waste determination; or

- 2) Before USEPA has granted such authorization, the non-waste determination becomes effective upon fulfillment of all of the following conditions:
  - A) The Board has granted an adjusted standard which determines that the hazardous secondary material meets the criteria in either subsection (b) or (c) ~~of this Section~~, as applicable;
  - B) The Agency has requested that USEPA review the Board's non-waste determination; and
  - C) USEPA has approved the Board's non-waste determination.
- b) The Board will grant a non-waste determination for hazardous secondary material that is reclaimed in a continuous industrial process if the Board determines that the applicant has demonstrated that the hazardous secondary material is a part of the production process and the material is not discarded. The determination will be based on whether the hazardous secondary material is legitimately recycled, as determined pursuant to Section 720.143, and on the following criteria:
  - 1) The extent to which the management of the hazardous secondary material is part of the continuous primary production process and is not waste treatment;
  - 2) Whether the capacity of the production process would use the hazardous secondary material in a reasonable time frame and ensure that the hazardous secondary material will not be abandoned (for example, based on past practices, market factors, the nature of the hazardous secondary material, or any contractual arrangements);
  - 3) Whether the hazardous constituents in the hazardous secondary material are reclaimed, rather than released to the air, water, or land, at significantly higher levels, from either a statistical or from a health and environmental risk perspective, than would otherwise be released by the production process; and
  - 4) Other relevant factors which demonstrate that the hazardous secondary material is not discarded, including why the hazardous secondary material cannot meet, or should not have to meet, the conditions of an exclusion under 35 Ill. Adm. Code 721.102 or 721.104.
- c) The Board will grant a non-waste determination for a hazardous secondary material that is indistinguishable in all relevant aspects from a product or intermediate if the petitioner demonstrates that the hazardous secondary material is comparable to a product or intermediate and is not discarded. The Board's determination will be based on whether the hazardous secondary material is legitimately recycled, as determined pursuant to Section 720.143, and on the following criteria:



- 1) Whether market participants treat the hazardous secondary material as a product or intermediate, rather than as a waste (for example, based on the current positive value of the hazardous secondary material, stability of demand, or any contractual arrangements);
- 2) Whether the chemical and physical identity of the hazardous secondary material is comparable to commercial products or intermediates;
- 3) Whether the capacity of the market would use the hazardous secondary material in a reasonable time frame and ensure that the hazardous secondary material will not be abandoned (for example, based on past practices, market factors, the nature of the hazardous secondary material, or any contractual arrangements);
- 4) Whether the hazardous constituents in the hazardous secondary material are reclaimed, rather than released to the air, water, or land, at significantly higher levels, from either a statistical or from a health and environmental risk perspective, than would otherwise be released by the production process; and
- 5) Other relevant factors which demonstrate that the hazardous secondary material is not discarded, including why the hazardous secondary material cannot meet, or should not have to meet, the conditions of an exclusion under 35 Ill. Adm. Code 721.102 or 721.104.

~~BOARD NOTE: USEPA intended that use of the non-waste determination procedure is voluntary. By this procedure, the generator or other person managing a hazardous secondary material may obtain a formal determination that a particular use of a hazardous secondary material is legitimate recycling. The generator and others managing the material may independently make a determination pursuant to Section 720.143 and manage the material under one of the exemptions from the definition of solid waste codified at 35 Ill. Adm. Code 721.102(a)(2)(ii) or 721.104(a)(23), (a)(24), or (a)(25). See 73 Fed. Reg. 64668, 74710 (Oct. 30, 2008).~~

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 720.142 Notification Requirement for Hazardous Secondary Materials**

- a) ~~A hazardous secondary material generator, a tolling contractor, a toll manufacturer, a reclaimer, or an intermediate-facility that manages hazardous secondary materials which are excluded from regulation under 35 Ill. Adm. Code 721.102(a)(2)(B) or 721.104(a)(23), (a)(24), or (a)(25)-(a)(27) must send a notification to USEPA Region 5. The notification must occur prior to operating under the exclusion-regulatory provision and before March 1 of every even-numbered calendar year thereafter using a copy of USEPA Form 8700-12 obtained from the Agency, Bureau of Land (217-782-6762). The notification must include the following information:~~

- 1) The name, address, and USEPA identification number (if applicable) of the facility;
- 2) The name and telephone number of a contact person for the facility;
- 3) The NAICS code of the facility;

BOARD NOTE: Determined using the “North American Industry Classification System,” incorporated by reference in Section 720.111.

- 4) The ~~exclusion regulation~~ under which the facility will manage the hazardous secondary materials ~~(e.g., 35 Ill. Adm. Code 721.102(a)(2)(B) or 721.104(a)(23), (a)(24), or (a)(25))~~;
  - ~~5) For a reclaimer or intermediate facility that manages hazardous secondary materials in accordance with Section 721.104(a)(24) or (a)(25), whether the reclaimer or intermediate facility has financial assurance (not applicable for persons managing hazardous secondary materials generated and reclaimed under the control of the generator)~~;
  - 65) When the facility began or expects to begin managing the hazardous secondary materials in accordance with the ~~exclusion~~ regulation;
  - 76) A list of hazardous secondary materials that the facility will manage according to the ~~exclusion regulation~~ (reported as the USEPA hazardous waste numbers that would apply if the hazardous secondary materials were managed as hazardous wastes);
  - 87) For each hazardous secondary material, whether the hazardous secondary material, or any portion thereof, will be managed in a land-based unit;
  - 98) The quantity of each hazardous secondary material to be managed annually; and
  - 109) The certification (included in USEPA Form 8700-12) signed and dated by an authorized representative of the facility.
- b) If a facility that manages hazardous secondary material generator, tolling contractor, toll manufacturer, reclaimer, or intermediate facility has submitted a notification, but then subsequently ceases managing hazardous secondary materials in accordance with ~~the exclusions~~ a regulation listed in subsection (a), the facility owner or operator must notify the Agency within 30 days after the cessation using a copy of USEPA Form 8700-12 obtained from the Agency, Bureau of Land (217-782-6762). For purposes of this Section, a facility has stopped managing hazardous secondary materials if the facility no longer generates, manages, or reclaims hazardous secondary materials under the ~~exclusions~~ regulation listed in subsection (a), and the facility owner or operator

does not expect to manage any amount of hazardous secondary materials for at least one year.

BOARD NOTE: USEPA Form 8700-12 is the required instructions and forms for notification of regulated waste activity.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 720.143 Legitimate Recycling of Hazardous Secondary Materials**

- a) ~~This Section applies to any person that is regulated pursuant to Section 720.134 or which claims to be excluded from hazardous waste regulation pursuant to 35 Ill. Adm. Code 721.102(a)(2)(B) or 721.104(a)(23), (a)(24), or (a)(25) because that person is engaged in reclamation. Any such person must be able to demonstrate that the recycling in which it is engaged is legitimate recycling. Recycling of hazardous secondary materials for the purpose of the exclusions or exemptions from the hazardous waste regulations must be legitimate. Hazardous secondary material that is not the subject of legitimate recycling is discarded material and is a solid waste. A determination that an activity is legitimate recycling must address all the factors set forth in subsections (b) and (c) requirements of this Section subsection (a).~~
- 1) Legitimate recycling must involve a hazardous secondary material that provides a useful contribution to the recycling process or to a product or intermediate of the recycling process. The hazardous secondary material provides a useful contribution if it fulfills one of the following criteria:
- A) The material contributes valuable ingredients to a product or intermediate;
  - B) The material replaces a catalyst or carrier in the recycling process;
  - C) The material is the source of a valuable constituent recovered in the recycling process;
  - D) The material is recovered or regenerated by the recycling process;  
or
  - E) The material is used as an effective substitute for a commercial product.
- 2) The recycling process must produce a valuable product or intermediate. The product or intermediate is valuable if either of the following is true:
- A) The product or intermediate is sold to a third party; or

- B) The product or intermediate is used by the recycler or the generator as an effective substitute for a commercial product or as an ingredient or intermediate in an industrial process.
- 3) The generator and the recycler must manage the hazardous secondary material as a valuable commodity when it is under their control. Where there is an analogous raw material, the hazardous secondary material must be managed, at a minimum, in a manner consistent with the management of the raw material or in an equally protective manner. Where there is no analogous raw material, the hazardous secondary material must be contained. Hazardous secondary materials that are released to the environment and which are not recovered immediately are discarded material.
- 4) The product of the recycling process must be comparable to a legitimate product or intermediate as follows:
- A) Where there is an analogous product or intermediate, the product of the recycling process is comparable to a legitimate product or intermediate if both of the following conditions are true:
- i) The product of the recycling process does not exhibit a hazardous characteristic (as defined in Subpart C of 35 Ill. Adm. Code 721) that analogous products do not exhibit, and
- ii) The concentrations of any hazardous constituents found in Appendix H of 35 Ill. Adm. Code 721 that are in the product or intermediate are at levels that are comparable to or lower than those found in analogous products or at levels that meet widely-recognized commodity standards and specifications, in the case where the commodity standards and specifications include levels that specifically address those hazardous constituents.
- B) Where there is no analogous product, the product of the recycling process is comparable to a legitimate product or intermediate if either of the following conditions is true:
- i) The product of the recycling process is a commodity that meets widely recognized commodity standards and specifications (e.g., commodity specification grades for common metals), or
- ii) The hazardous secondary materials being recycled are returned to the original process or processes from which they were generated to be reused (e.g., closed loop recycling).

- C) If the product of the recycling process has levels of hazardous constituents that are not comparable to or unable to be compared to a legitimate product or intermediate as provided in (a)(4)(A) or (a)(4)(B), the recycling still may be shown to be legitimate, if the person performing the recycling fulfills the following specified requirements:
- i) The person performing the recycling must conduct the necessary assessment and prepare documentation which demonstrates that the recycling is, in fact, still legitimate;
  - ii) The assessment and documentation demonstrate that the recycling is legitimate based on lack of exposure from toxics in the product, lack of the bioavailability of the toxics in the product, or other relevant considerations which show that the recycled product does not contain levels of hazardous constituents that pose a significant human health or environmental risk;
  - iii) The documentation must include a certification statement that the recycling is legitimate, and the assessment and documentation must be maintained on-site for three years after the recycling operation has ceased; and
  - iv) The person performing the recycling must notify the USEPA and the Agency of the recycling activity using USEPA Form 8700-12.
- b) ~~Factors fundamental to a determination of legitimate recycling. Legitimate recycling must involve a hazardous secondary material that provides a useful contribution to the recycling process or to a product or intermediate of the recycling process, and the recycling process must produce a valuable product or intermediate.~~ This subsection (b) corresponds with 40 CFR 260.43(b), which USEPA has removed and marked "reserved." This statement maintains structural consistency with the corresponding federal rules.
- 1) ~~The hazardous secondary material provides a useful contribution to the recycling process or to a product or intermediate if any of the following is true of its reclamation:~~
    - A) ~~It contributes valuable ingredients to a product or intermediate;~~
    - B) ~~It replaces a catalyst or carrier in the recycling process;~~
    - C) ~~It is the source of a valuable constituent recovered in the recycling process;~~
    - D) ~~It is recovered or regenerated by the recycling process; or~~

- ~~E) — It is used as an effective substitute for a commercial product.~~
- 2) ~~The product or intermediate produced is valuable if either of the following describes it:~~
- ~~A) — It is sold to a third party; or~~
- ~~B) — It is used by the recycler or the generator as an effective substitute for a commercial product or as an ingredient or intermediate in an industrial process.~~
- c) ~~Other factors for consideration in a determination of legitimate recycling. A determination whether a specific recycling activity constitutes legitimate recycling must consider the factors of subsections (c)(1) and (c)(2) of this Section, in the way described in subsection (c)(3) of this Section. This subsection (c) corresponds with 40 CFR 260.43(c), which USEPA has removed and marked “reserved.” This statement maintains structural consistency with the corresponding federal rules.~~
- 1) ~~The demonstration must show whether both the generator and the recycler manage the hazardous secondary material as a valuable commodity. Where there is an analogous raw material, the demonstration must show whether the generator and the recycler manage the hazardous secondary material, at a minimum, in a manner consistent with the management of the raw material. Where there is no analogous raw material, the demonstration must show whether the hazardous secondary material is contained. A hazardous secondary material that is released to the environment and which is not immediately recovered is discarded material, which is solid waste; and~~
- 2) ~~The demonstration must show whether each of the following is true of the product of the recycling process:~~
- ~~A) — The product does not contain significant concentrations of any hazardous constituents listed in Appendix H to 35 Ill. Adm. Code 721 that are not found in analogous products;~~
- ~~B) — The product does not contain concentrations of any hazardous constituents listed in Appendix H to 35 Ill. Adm. Code 721 at levels that are significantly elevated above those found in analogous products; and~~
- ~~C) — The product does not exhibit a hazardous characteristic (as defined in Subpart C of 35 Ill. Adm. Code 721) that analogous products do not exhibit.~~
- 3) ~~Determination whether a specific instance of reclamation is legitimate recycling. A determination that a specific instance of reclamation of a~~

hazardous secondary material is legitimate recycling, requires evaluation of all of the factors set forth in subsections (c)(1) and (c)(2) of this Section, and the determination must consider legitimacy as a whole.

- A) ~~If, after careful evaluation, the determination is that the conditions of one or both of the factors set forth in subsections (c)(1) and (c)(2) of this Section are not fulfilled, this fact militates in favor of a determination that the reclamation of the hazardous secondary material is not legitimate recycling. However, the non fulfillment of the factors set forth in subsections (c)(1) and (c)(2) of this Section does not require a determination that the reclamation is not legitimate recycling.~~
- B) ~~In evaluating the extent to which the reclamation fulfills the factors set forth in subsections (c)(1) and (c)(2) of this Section, and in determining whether a specific reclamation process that does not meet one or both of these factors is still legitimate recycling, the determination can consider the protectiveness of the storage methods, exposure of persons and the environment to toxics in the product, the bioavailability of the toxics in the product, and other relevant considerations that bear on whether the recycling is legitimate.~~

~~BOARD NOTE: USEPA stated that the four legitimacy factors of this Section are substantially the same as its pre-existing “legitimacy policy,” as embodied in an internal USEPA memorandum. That memorandum elaborates “other relevant factors” as the economics of the recycling process (i.e., whether most of the revenue derives from sale of the product or from fees charged generators for managing their wastes) and whether the toxic constituents are necessary or of use to the product or are “just ‘along for the ride.’” Memorandum from Sylvia K. Lowrance, Director, USEPA, Office of Resource Conservation and Recovery, to Hazardous Waste Management Division Directors, USEPA Regions 1 through 10, attachment at p. 2; see 73 Fed. Reg. 64668, 709-10 (Oct. 31, 2008).~~

~~BOARD NOTE: USEPA uses “legitimate recycling” interchangeably with “legitimately recycled,” “recycling is legitimate,” and “recycling to be considered legitimate” in corresponding 40 CFR 260.43, as added at 73 Fed. Reg. 64668 (Oct. 30, 2008). The Board has standardized the usage “legitimate recycling” in this Section. USEPA refers to “reclamation of the material that is legitimate” in corresponding 40 CFR 261.2(a)(2)(ii) and 261.4(a)(23), (a)(24), and (a)(25) (2009), as determined pursuant to corresponding 40 CFR 260.43 (2009). The Illinois provision at 35 Ill. Adm. Code 721.101(c)(7) (and corresponding federal 40 CFR 261.1(c)(7)) states that a material is “recycled” if it is “used, reused, or reclaimed.” The Board intends that “legitimate reclamation,” in referenced provisions 35 Ill. Adm. Code 721.102(a)(2)(ii) or 721.104(a)(23), (a)(24), or (a)(25), is synonymous with “legitimate recycling,” as used in this Section.~~

(Source: Amended at 40 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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721.APPENDIX Z	Table to Section 721.102: Recycled Materials that Are Solid Waste

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

SOURCE: Adopted in R81-22 at 5 Ill. Reg. 9781, effective May 17, 1982; amended and codified in R81-22 at 6 Ill. Reg. 4828, effective May 17, 1982; amended in R82-18 at 7 Ill. Reg. 2518, effective February 22, 1983; amended in R82-19 at 7 Ill. Reg. 13999, effective October 12, 1983; amended in R84-34, 61 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. 17531, effective September 28, 1998; amended in R98-21/R99-2/R99-7 at 23 Ill. Reg. 1718, effective January 19, 1999; amended in R99-15 at 23 Ill. Reg. 9135, effective July 26, 1999; amended in R00-13 at 24 Ill. Reg. 9481, effective June 20, 2000; amended in R01-3 at 25 Ill. Reg. 1281, effective January 11, 2001; amended in R01-21/R01-23 at 25 Ill. Reg. 9108, effective July 9, 2001; amended in R02-1/R02-12/R02-17 at 26 Ill. Reg. 6584, effective April 22, 2002; amended in R03-18 at 27 Ill. Reg. 12760, effective July 17, 2003; amended in R04-16 at 28 Ill. Reg. 10693, effective July 19, 2004; amended in R05-8 at 29 Ill. Reg. 6003, effective April 13, 2005; amended in R06-5/R06-6/R06-7 at 30 Ill. Reg. 2992, effective February 23, 2006; amended in R06-16/R06-17/R06-18 at 31 Ill. Reg. 791, effective December 20, 2006; amended in R07-5/R07-14 at 32 Ill. Reg. 11786, effective July 14, 2008; amended in R09-3 at 33 Ill. Reg. 986, effective December 30, 2008; amended in R09-16/R10-4 at 34 Ill. Reg. 18611, effective November 12, 2010; amended in R11-2/R11-16 at 35 Ill. Reg. 17734, effective October 14, 2011; amended in R13-5 at 37 Ill. Reg. 3213, effective March 4, 2013; amended in R14-13 at 38 Ill. Reg. 12442, effective May 27, 2014; amended in R15-1 at 39 Ill. Reg. 1607, effective January 12, 2015; amended in R16-7 at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

## SUBPART A: GENERAL PROVISIONS

### Section 721.101 Purpose and Scope

- a) This Part identifies those solid wastes that are subject to regulation as hazardous wastes under 35 Ill. Adm. Code 702, 703, and 722 through 728, and which are subject to the notification requirements of Section 3010 of the Resource Conservation and Recovery Act (RCRA) (42 USC 6901 et seq.). In this Part:
  - 1) Subpart A of this Part defines the terms “solid waste” and “hazardous waste,” identifies those wastes that are excluded from regulation under 35 Ill. Adm. Code 702, 703, and 722 through 728, and establishes special management requirements for hazardous waste produced by conditionally exempt small quantity generators and hazardous waste that is recycled.

- 2) Subpart B of this Part sets forth the criteria used to identify characteristics of hazardous waste and to list particular hazardous wastes.
  - 3) Subpart C of this Part identifies characteristics of hazardous wastes.
  - 4) Subpart D of this Part 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 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 that are solid wastes and hazardous wastes under Sections 1004(5), 1004(27) and 7003 of RCRA. A material that 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 the following definitions apply:
- 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. In addition, for purposes of ~~Sections 721.102(a)(2)(B) and Section~~ Section 721.104(a)(23) and (a)(24) smelting, melting, and refining furnaces are considered to be solely engaged in metals reclamation if the metal recovery from the hazardous secondary materials meets the same requirements as those specified for metals recovery from hazardous waste found in 35 Ill. Adm. Code 726.200(d)(1) through (d)(3), and if the residuals meet the requirements specified in 35 Ill. Adm. Code 726.212.

- 5) A material is “used or reused” if either of the following is true:
- A) It is 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) It is 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, or wire) or metal pieces that may be combined together with bolts or soldering (e.g., radiators, scrap automobiles, or railroad box cars) that 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. Materials must be placed in a storage unit with a label indicating the first date that the material began to be accumulated. If placing a label on the storage unit is not practicable, the accumulation period must be documented through an inventory log or other appropriate method. 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.

BOARD NOTE: Various segments of this Part and 35 Ill. Adm. Code 720 use the verbal phrase “accumulated speculatively” and the noun phrase “speculative accumulation.” Some of those segments rely on this

subsection (c)(8) definition of “speculatively accumulated” for definition of the “speculative accumulation.” The Board infers that USEPA intends that the verb phrase define the noun phrase: material that is accumulated speculatively is the subject of speculative accumulation.

- 9) “Excluded scrap metal” is processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal.
  - 10) “Processed scrap metal” is scrap metal that 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)(14))).
  - 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 RCRA and Section 4 of the Environmental Protection Act [415 ILCS 5/4].
  - e) Electronic reporting. The filing of any document pursuant to any provision of this Part as an electronic document is subject to 35 Ill. Adm. Code 720.104.

BOARD NOTE: Subsection (e) of this Section is derived from 40 CFR 3, 271.10(b), 271.11(b), and 271.12(h) ~~(2014)~~ (2015).

(Source: Amended at 40 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 pursuant to Section 721.104(a) or that is not excluded pursuant to 35 Ill. Adm. Code 720.130 and 720.131 or 35 Ill. Adm. Code 720.130 and 720.134.
  - 2) Discarded material.

- A) A discarded material is any material that is described as follows:
- i) It is abandoned, as described in subsection (b) ~~of this Section~~;
  - ii) It is recycled, as described in subsection (c) ~~of this Section~~;
  - iii) It is considered inherently waste-like, as described in subsection (d) ~~of this Section~~; or
  - iv) It is a military munition identified as a solid waste in 35 Ill. Adm. Code 726.302.
- B) ~~A hazardous secondary material is not discarded if each of the following is true with respect to the waste: This subsection (a)(2)(B) corresponds with 40 CFR 261.2(a)(2)(ii), which USEPA has removed and marked "reserved." This statement maintains structural consistency with the corresponding federal regulations.~~
- ~~i) It is generated and reclaimed under the control of the generator, as defined in 35 Ill. Adm. Code 720.110;~~
  - ~~ii) It is not speculatively accumulated, as defined in Section 721.101(c)(8);~~
  - ~~iii) It is handled only in non-land based units and is contained in such units;~~
  - ~~iv) It is generated and reclaimed within the United States and its territories;~~
  - ~~v) It is not otherwise subject to material specific management conditions pursuant to Section 721.104(a) when reclaimed;~~
  - ~~vi) It is not a spent lead acid battery (see 35 Ill. Adm. Code 726.180 and 733.102);~~
  - ~~vii) It does not meet either of the listing descriptions for K171 or K172 waste in Section 721.132; and~~
  - ~~viii) The reclamation of the material is legitimate, as determined pursuant to 35 Ill. Adm. Code 720.143.~~
- b) A material is a solid waste if it is abandoned in one of the following ways:
- 1) It is disposed of;
  - 2) It is burned or incinerated; or



- 3) It is accumulated, stored, or treated (but not recycled) before or in lieu of being abandoned by being disposed of, burned, or incinerated; or
  - 4) Sham recycled, as explained in subsection (g).
- c) A material is a solid waste if it is recycled—or accumulated, stored, or treated before recycling—as specified in subsections (c)(1) through (c)(4) ~~of this Section~~, if one of the following occurs with regard to the material:
- 1) The material is used in a manner constituting disposal.
    - A) A material that is noted with a “yes” in column 1 of the table in Appendix Z of this Part is a solid waste when one of the following occurs:
      - i) The material is applied to or placed on the land in a manner that constitutes disposal; or
      - ii) The material is 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, a commercial chemical product that is listed in Section 721.133 is not a solid waste if it is applied to the land and that is its ordinary manner of use.
  - 2) The material is burned for energy recovery.
    - A) A material that is noted with a “yes” in column 2 of the table in Appendix Z of this Part is a solid waste when one of the following occurs:
      - i) It is burned to recover energy;
      - ii) It is used to produce a fuel or is otherwise contained in fuels (in which case the fuel itself remains a solid waste);
      - iii) It is contained in fuels (in which case the fuel itself remains a solid waste).
    - B) However, a commercial chemical product that is listed in Section 721.133 is not a solid waste if it is itself a fuel.
  - 3) Reclaimed. A material noted with a “No“ in column 3 of the table in Appendix Z of this Part is not a solid waste when reclaimed (except as provided under Section 721.104(a)(17)). A material noted with a “Yes” in column 3 of Appendix Z of this Part is a solid waste when reclaimed,

unless it meets the requirements of Section ~~721.102(a)(2)(B)~~ or 721.104(a)(17), (a)(23), (a)(24), or ~~(a)(25)~~ (a)(27).

- 4) Accumulated speculatively. A material noted with “yes” in column 4 of the table in Appendix Z of this Part is a solid waste 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) A secondary material fed to a halogen acid furnace that exhibits a characteristic of a hazardous waste or which is listed as a hazardous waste, as defined in Subpart 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 percent;
    - B) The material must contain less than a total of one percent of toxic organic compounds listed in Appendix H of this Part; 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 material is ordinarily disposed of, burned, or incinerated; or
      - ii) The material contains toxic constituents listed in Appendix H of this Part and these constituents are not ordinarily found in raw materials or products for which the material substitutes (or are found in raw materials or products in smaller concentrations) and is 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) A material is not a solid waste when it can be shown to be recycled by fulfilling one of the following conditions:

- A) It is used or reused as an ingredient in an industrial process to make a product, provided the material is not being reclaimed; or
  - B) It is used or reused as effective substitutes for commercial products; or
  - C) It is returned to the original process from which it is generated, without first being reclaimed or land disposed. The material 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 material must be managed in such a manner that there is no placement on the land. In cases where the material is generated and reclaimed within the primary mineral processing industry, the conditions of the exclusion found at Section 721.104(a)(17) apply rather than this provision.
- 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)-~~of this Section~~):
- A) A material used in a manner constituting disposal or used to produce a product that is applied to the land; or
  - B) A material burned for energy recovery, used to produce a fuel, or contained in fuels; or
  - C) A material accumulated speculatively; or
  - D) A material listed in subsections (d)(1) and (d)(2)-~~of this Section~~.
- f) Documentation of claims that a material is not a solid waste or is conditionally exempt from regulation. A respondent in an action to enforce regulations implementing Subtitle C of RCRA or Section 21 of the Environmental Protection Act that raises 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 the material meets 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, an owner or operator of a facility claiming that it actually is recycling a material must show that it has the necessary equipment to recycle that material.
- g) Sham recycling. A hazardous secondary material found to be sham recycled is considered discarded and a solid waste. Sham recycling is recycling that is not legitimate recycling, as defined in 35 Ill. Adm. Code 720.143.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 721.103 Definition of Hazardous Waste**

- a) A solid waste, as defined in Section 721.102, is a hazardous waste if the following is true of the waste:
- 1) It is not excluded from regulation as a hazardous waste pursuant to Section 721.104(b); and
  - 2) It meets any of the following criteria:
    - A) It exhibits any of the characteristics of hazardous waste identified in Subpart C of this Part. However, any mixture of a waste from the extraction, beneficiation, and processing of ores and minerals excluded pursuant to Section 721.104(b)(7) and any other solid waste exhibiting a characteristic of hazardous waste pursuant to Subpart C of this Part is a hazardous waste only if it exhibits a characteristic that would not have been exhibited by the excluded waste alone if such mixture had not occurred, or if the mixture continues to exhibit any of the characteristics exhibited by the non-excluded wastes prior to mixture. Further, for the purposes of applying the toxicity characteristic to such mixtures, the mixture is also a hazardous waste if it exceeds the maximum concentration for any contaminant listed in Section 721.124 that would not have been exceeded by the excluded waste alone if the mixture had not occurred or if it continues to exceed the maximum concentration for any contaminant exceeded by the nonexempt waste prior to mixture.
    - B) It is listed in Subpart D of this Part and has not been excluded from the lists in Subpart D of this Part pursuant to 35 Ill. Adm. Code 720.120 and 720.122.
    - C) This subsection (a)(2)(B) corresponds with 40 CFR 261.3(a)(2)(iii), which USEPA removed and marked as “reserved” at 66 Fed. Reg. 27266 (May 16, 2001). This statement maintains structural consistency with the federal regulations.
    - D) It is a mixture of solid waste and one or more hazardous wastes listed in Subpart D of this Part and has not been excluded from this subsection (a)(2) pursuant to 35 Ill. Adm. Code 720.120 and 720.122; ~~or subsection (g) of this Section, or subsection (h) of this Section or (h);~~ however, the following mixtures of solid wastes and hazardous wastes listed in Subpart D of this Part are not hazardous wastes (except by application of subsection (a)(2)(A) or (a)(2)(B) ~~of this Section~~) if the generator demonstrates that the mixture consists of wastewater the discharge of which is subject to regulation under either 35 Ill. Adm. Code 309 or 310 (including

wastewater at facilities that have eliminated the discharge of wastewater) and the following is true of the waste:

- i) It is one or more of the following solvents listed in Section 721.131: benzene, carbon tetrachloride, tetrachloroethylene, trichloroethylene or the scrubber waters derived from the combustion of these spent solvents, provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 1 part per million, or the total measured concentration of these solvents entering the headworks of the facility's wastewater treatment system (at a facility that is subject to regulation under the federal Clean Air Act new source performance standards or national emission standards for hazardous air pollutants of 40 CFR 60, 61, or 63 or at a facility that is subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions) does not exceed 1 part per million on an average weekly basis. Any facility that uses benzene as a solvent and claims this exemption must use an aerated biological wastewater treatment system and must use only lined surface impoundments or tanks prior to secondary clarification in the wastewater treatment system. A facility that chooses to measure concentration levels must file a copy of its sampling and analysis plan with the Agency. A facility must file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan must include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once it receives confirmation that the sampling and analysis plan has been received by the Agency. The Agency must reject the sampling and analysis plan if it determines that the sampling and analysis plan fails to include the information required by this subsection (a)(2)(D)(i) or that the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the Agency rejects the sampling and analysis plan, or if the Agency determines that the facility is not following the sampling and analysis plan, the Agency must notify the facility to cease the use of the direct monitoring

option until such time as the bases for rejection are corrected;

- ii) It is one or more of the following spent solvents listed in Section 721.131: methylene chloride, 1,1,1-trichloroethane, chlorobenzene, o-dichlorobenzene, cresols, cresylic acid, nitrobenzene, toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, spent chlorofluorocarbon solvents, 2-ethoxyethanol, or the scrubber waters derived from the combustion of these spent solvents, provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 25 parts per million, or the total measured concentration of these solvents entering the headworks of the facility's wastewater treatment system (at a facility that is subject to regulation under the federal Clean Air Act new source performance standards or national emission standards for hazardous air pollutants of 40 CFR 60, 61, or 63 or at a facility that is subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions) does not exceed 25 parts per million on an average weekly basis. A facility that chooses to measure concentration levels must file a copy of its sampling and analysis plan with the Agency. A facility must file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan must include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once it receives confirmation that the sampling and analysis plan has been received by the Agency. The Agency must reject the sampling and analysis plan if it determines that the sampling and analysis plan fails to include the information required by this subsection (a)(2)(D)(ii) or that the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the Agency rejects the sampling and analysis plan, or if the Agency determines that the facility is not following the sampling and analysis plan, the Agency must notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected;

- iii) It is one of the following wastes listed in Section 721.132, provided that the wastes are discharged to the refinery oil recovery sewer before primary oil/water/solids separation: heat exchanger bundle cleaning sludge from the petroleum refining industry (USEPA hazardous waste number K050), crude oil storage tank sediment from petroleum refining operations (USEPA hazardous waste number K169), clarified slurry oil tank sediment or in-line filter/separation solids from petroleum refining operations (USEPA hazardous waste number K170), spent hydrotreating catalyst (USEPA hazardous waste number K171), and spent hydrorefining catalyst (USEPA hazardous waste number K172);
- iv) It is a discarded hazardous waste, commercial chemical product or chemical intermediate listed in Section 721.121, 721.132, or 721.133 arising from de minimis losses of these materials. For purposes of this subsection (a)(2)(D)(iv), “de minimis” losses are inadvertent releases to a wastewater treatment system, including those from normal material handling operations (e.g., spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves, or other devices used to transfer materials); minor leaks of process equipment, storage tanks, or containers; leaks from well-maintained pump packings and seals; sample purgings; relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; and rinsate from empty containers or from containers that are rendered empty by that rinsing. Any manufacturing facility that claims an exemption for de minimis quantities of a waste listed in Section 721.131 or 721.132, or any nonmanufacturing facility that claims an exemption for de minimis quantities of wastes listed in Subpart D of this Part, must either have eliminated the discharge of wastewaters or have included in its federal Clean Water Act (33 USC 1251 et seq.) permit application or wastewater pretreatment submission to the Agency or the wastewater pretreatment Control Authority pursuant to 35 Ill. Adm. Code 307 of the constituents for which each waste was listed (in Appendix G of this Part); and the constituents in Table T to 35 Ill. Adm. Code 728 for which each waste has a treatment standard (*i.e.*, land disposal restriction constituents). A facility is eligible to claim the exemption once the Agency or Control Authority has been notified of possible de minimis releases via the Clean Water Act permit application or the wastewater pretreatment

submission. A copy of the Clean Water Act permit application or the wastewater pretreatment submission must be placed in the facility's on-site files;

- v) It is wastewater resulting from laboratory operations containing toxic (T) wastes listed in Subpart D of this Part, provided that the annualized average flow of laboratory wastewater does not exceed one percent of total wastewater flow into the headworks of the facility's wastewater treatment or pretreatment system or provided that the wastes' combined annualized average concentration does not exceed one part per million in the headworks of the facility's wastewater treatment or pretreatment facility. Toxic (T) wastes used in laboratories that are demonstrated not to be discharged to wastewater are not to be included in this calculation;
  
- vi) It is one or more of the following wastes listed in Section 721.132: wastewaters from the production of carbamates and carbamoyl oximes (USEPA hazardous waste number K157), provided that the maximum weekly usage of formaldehyde, methyl chloride, methylene chloride, and triethylamine (including all amounts that cannot be demonstrated to be reacted in the process, destroyed through treatment, or recovered, i.e., what is discharged or volatilized) divided by the average weekly flow of process wastewater prior to any dilutions into the headworks of the facility's wastewater treatment system does not exceed a total of 5 parts per million by weight, or the total measured concentration of these chemicals entering the headworks of the facility's wastewater treatment system (at a facility that is subject to regulation under the federal Clean Air Act new source performance standards or national emission standards for hazardous air pollutants of 40 CFR 60, 61, or 63 or at a facility that is subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions) does not exceed 5 parts per million on an average weekly basis. A facility that chooses to measure concentration levels must file a copy of its sampling and analysis plan with the Agency. A facility must file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan must include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once it receives confirmation that the sampling and



analysis plan has been received by the Agency. The Agency must reject the sampling and analysis plan if it determines that the sampling and analysis plan fails to include the information required by this subsection (a)(2)(D)(vi) or that the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the Agency rejects the sampling and analysis plan, or if the Agency determines that the facility is not following the sampling and analysis plan, the Agency must notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected; or

- vii) It is wastewater derived from the treatment of one or more of the following wastes listed in Section 721.132: organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes (USEPA hazardous waste number K156), provided that the maximum concentration of formaldehyde, methyl chloride, methylene chloride, and triethylamine prior to any dilutions into the headworks of the facility's wastewater treatment system does not exceed a total of 5 milligrams per liter, or the total measured concentration of these chemicals entering the headworks of the facility's wastewater treatment system (at a facility that is subject to regulation under the federal Clean Air Act new source performance standards or national emission standards for hazardous air pollutants of 40 CFR 60, 61, or 63 or at a facility that is subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions) does not exceed 5 milligrams per liter on an average weekly basis. A facility that chooses to measure concentration levels must file a copy of its sampling and analysis plan with the Agency. A facility must file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan must include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once it receives confirmation that the sampling and analysis plan has been received by the Agency. The Agency must reject the sampling and analysis plan if it determines that the sampling and analysis plan fails to include the information required by this subsection (a)(2)(D)(vii) or that the plan parameters would not enable the facility to calculate the

weekly average concentration of these chemicals accurately. If the Agency rejects the sampling and analysis plan, or if the Agency determines that the facility is not following the sampling and analysis plan, the Agency must notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected.

- E) Rebuttable presumption for used oil. Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in Subpart D of this Part. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (for example, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in Appendix H of this Part).
- i) The rebuttable presumption does not apply to a metalworking oil or fluid containing chlorinated paraffins if it is processed through a tolling arrangement, as described in 35 Ill. Adm. Code 739.124(c), to reclaim metalworking oils or fluids. The presumption does apply to a metalworking oil or fluid if such an oil or fluid is recycled in any other manner, or disposed of.
  - ii) The rebuttable presumption does not apply to a used oil contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to a used oil contaminated with CFCs that have been mixed with used oil from a source other than a refrigeration unit.
- b) A solid waste that is not excluded from regulation pursuant to subsection (a)(1) ~~of this Section~~ becomes a hazardous waste when any of the following events occur:
- 1) In the case of a waste listed in Subpart D of this Part, when the waste first meets the listing description set forth in Subpart D of this Part.
  - 2) In the case of a mixture of solid waste and one or more listed hazardous wastes, when a hazardous waste listed in Subpart D of this Part is first added to the solid waste.
  - 3) In the case of any other waste (including a waste mixture), when the waste exhibits any of the characteristics identified in Subpart C of this Part.
- c) Unless and until it meets the criteria of subsection (e) ~~of this Section~~, a hazardous waste will remain a hazardous waste.

BOARD NOTE: This subsection (c) corresponds with 40 CFR 261.3(c)(1). The Board has codified 40 CFR 261.3(c)(2) at subsection (e) ~~of this Section~~.

- d) Any solid waste described in subsection (e) ~~of this Section~~ is not a hazardous waste if it meets the following criteria:
- 1) In the case of any solid waste, it does not exhibit any of the characteristics of hazardous waste identified in Subpart C of this Part. (However, wastes that exhibit a characteristic at the point of generation may still be subject to 35 Ill. Adm. Code 728, even if they no longer exhibit a characteristic at the point of land disposal.)
  - 2) In the case of a waste that is a listed waste pursuant to Subpart D of this Part, a waste that contains a waste listed pursuant to Subpart D of this Part, or a waste that is derived from a waste listed in Subpart D of this Part, it also has been excluded from subsection (e) ~~of this Section~~ pursuant to 35 Ill. Adm. Code 720.120 and 720.122.
- e) Specific inclusions and exclusions.
- 1) Except as otherwise provided in subsection (e)(2), (g), or (h) ~~of this Section~~, any solid waste generated from the treatment, storage, or disposal of a hazardous waste, including any sludge, spill residue, ash, emission control dust, or leachate (but not including precipitation run-off), is a hazardous waste. (However, materials that are reclaimed from solid wastes and that are used beneficially are not solid wastes and hence are not hazardous wastes under this provision unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal.)
  - 2) The following solid wastes are not hazardous even though they are generated from the treatment, storage, or disposal of a hazardous waste, unless they exhibit one or more of the characteristics of hazardous waste:
    - A) Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry (SIC Codes 331 and 332).
    - B) Wastes from burning any of the materials exempted from regulation by Section 721.106(a)(3)(C) and (a)(3)(D).
    - C) Nonwastewater residues, such as slag, resulting from high temperature metal recovery (HTMR) processing of K061, K062, or F006 waste in the units identified in this subsection (e)(2) that are disposed of in non-hazardous waste units, provided that these residues meet the generic exclusion levels identified in the tables in this subsection (e)(2)(C) for all constituents and the residues exhibit no characteristics of hazardous waste. The types of units identified are rotary kilns, flame reactors, electric furnaces, plasma

arc furnaces, slag reactors, rotary hearth furnace/electric furnace combinations, or the following types of industrial furnaces (as defined in 35 Ill. Adm. Code 720.110): blast furnaces; smelting, melting, and refining furnaces (including pyrometallurgical devices such as cupolas, reverberator furnaces, sintering machines, roasters, and foundry furnaces); and other furnaces designated by the Agency pursuant to that definition.

- i) Testing requirements must be incorporated in a facility's waste analysis plan or a generator's self-implementing waste analysis plan; at a minimum, composite samples of residues must be collected and analyzed quarterly and when the process or operation generating the waste changes.
- ii) Persons claiming this exclusion in an enforcement action will have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements. The generic exclusion levels are the following:

Generic exclusion levels for K061 and K062 nonwastewater HTMR residues:

Constituent	Maximum for any single composite sample (mg/ℓ)
Antimony	0.10
Arsenic	0.50
Barium	7.6
Beryllium	0.010
Cadmium	0.050
Chromium (total)	0.33
Lead	0.15
Mercury	0.009
Nickel	1.0
Selenium	0.16
Silver	0.30
Thallium	0.020
Vanadium	1.26
Zinc	70

Generic exclusion levels for F006 nonwastewater HTMR residues:

Constituent	Maximum for any single composite sample (mg/ℓ)
Antimony	0.10
Arsenic	0.50

Barium	7.6
Beryllium	0.010
Cadmium	0.050
Chromium (total)	0.33
Cyanide (total) (mg/kg)	1.8
Lead	0.15
Mercury	0.009
Nickel	1.0
Selenium	0.16
Silver	0.30
Thallium	0.020
Zinc	70

- iii) A one-time notification and certification must be placed in the facility's files and sent to the Agency (or, for out-of-State shipments, to the appropriate Regional Administrator of USEPA or the state agency authorized to implement federal 40 CFR 268 requirements) for K061, K062, or F006 HTMR residues that meet the generic exclusion levels for all constituents, which do not exhibit any characteristics, and which are sent to RCRA Subtitle D (municipal solid waste landfill) units. The notification and certification that is placed in the generator's or treater's files must be updated if the process or operation generating the waste changes or if the RCRA Subtitle D unit 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 calendar year, but no later than December 31. The notification must include the following information: the name and address of the non-hazardous waste management unit receiving the waste shipment; the USEPA hazardous waste number and treatability group at the initial point of generation; and the treatment standards applicable to the waste at the initial point of generation. The certification must be signed by an authorized representative and must state as follows:

“I certify under penalty of law that the generic exclusion levels for all constituents have been met without impermissible dilution and that no characteristic of hazardous waste is exhibited. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.”

- D) Biological treatment sludge from the treatment of one of the following wastes listed in Section 721.132: organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes (USEPA hazardous waste number K156) and wastewaters from the production of carbamates and carbamoyl oximes (USEPA hazardous waste number K157).
- E) Catalyst inert support media separated from one of the following wastes listed in Section 721.132: spent hydrotreating catalyst (USEPA hazardous waste number K171) and spent hydrorefining catalyst (USEPA hazardous waste number K172).

BOARD NOTE: This subsection (e) would normally correspond with 40 CFR 261.3(e), a subsection that has been deleted and marked “reserved” by USEPA. Rather, this subsection (e) corresponds with 40 CFR 261.3(c)(2), which the Board codified here to comport with codification requirements and to enhance clarity.

- f) Notwithstanding subsections (a) through (e) ~~of this Section~~ and provided the debris, as defined in 35 Ill. Adm. Code 728.102, does not exhibit a characteristic identified at Subpart C of this Part, the following materials are not subject to regulation under 35 Ill. Adm. Code 702, 703, 720, 721 to 726, or 728:
  - 1) Hazardous debris as defined in 35 Ill. Adm. Code 728.102 that has been treated using one of the required extraction or destruction technologies specified in Table F to 35 Ill. Adm. Code 728; persons claiming this exclusion in an enforcement action will have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements; or
  - 2) Debris, as defined in 35 Ill. Adm. Code 728.102, that the Agency, considering the extent of contamination, has determined is no longer contaminated with hazardous waste.
- g) Exclusion of certain wastes listed in Subpart D of this Part solely because they exhibit a characteristic of ignitability, corrosivity, or reactivity.
  - 1) A hazardous waste that is listed in Subpart D of this Part solely because it exhibits one or more characteristics of ignitability, as defined under Section 721.121; corrosivity, as defined under Section 721.122; or reactivity, as defined under Section 721.123 is not a hazardous waste if the waste no longer exhibits any characteristic of hazardous waste identified in Subpart C of this Part.
  - 2) The exclusion described in subsection (g)(1) ~~of this Section~~ also pertains to the following:

- A) Any mixture of a solid waste and a hazardous waste listed in Subpart D of this Part solely because it exhibits the characteristics of ignitability, corrosivity, or reactivity, as regulated under subsection (a)(2)(D) ~~of this Section~~; and
  - B) Any solid waste generated from treating, storing, or disposing of a hazardous waste listed in Subpart D of this Part solely because it exhibits the characteristics of ignitability, corrosivity, or reactivity, as regulated under subsection (e)(1) ~~of this Section~~.
- 3) Wastes excluded pursuant to this subsection (g) are subject to 35 Ill. Adm. Code 728 (as applicable), even if they no longer exhibit a characteristic at the point of land disposal.
- 4) Any mixture of a solid waste excluded from regulation in Section 721.104(b)(7) and a hazardous waste listed in Subpart D of this Part solely because the listed hazardous waste exhibits one or more of the characteristics of ignitability, corrosivity, or reactivity, as regulated under subsection (a)(2)(D), is not a hazardous waste if the mixture no longer exhibits any characteristic of hazardous waste identified in Subpart C of this Part for which USEPA listed the hazardous waste listed in Subpart D of this Part.
- h) Eligible radioactive mixed waste.
- 1) Hazardous waste containing radioactive waste is no longer a hazardous waste when it meets the eligibility criteria and conditions of Subpart N of 35 Ill. Adm. Code 726 (i.e., it is “eligible radioactive mixed waste”).
  - 2) The exemption described in subsection (h)(1) ~~of this Section~~ also pertains to the following:
    - A) Any mixture of a solid waste and an eligible radioactive mixed waste; and
    - B) Any solid waste generated from treating, storing, or disposing of an eligible radioactive mixed waste.
  - 3) Waste exempted pursuant to this subsection (h) must meet the eligibility criteria and specified conditions in 35 Ill. Adm. Code 726.325 and 726.330 (for storage and treatment) and in 35 Ill. Adm. Code 726.410 and 726.415 (for transportation and disposal). Waste that fails to satisfy these eligibility criteria and conditions is regulated as hazardous waste.

(Source: Amended at 40 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 (untreated sanitary wastes that pass through a sewer system); and
    - B) Any mixture of domestic sewage and other waste that passes through a sewer system to publicly-owned treatment works for treatment.
  - 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 [415 ILCS 5/12(f)] 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, by-product, or special nuclear material, as defined by section 11 of the Atomic Energy Act of 1954, as amended (42 USC 2014), incorporated by reference in 35 Ill. Adm. Code 720.111(b).
  - 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 liquors) that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process, unless it is 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 that the following is true:
    - 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 12 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;
  - B) Wastewaters from the wood preserving process that have been reclaimed and which are reused to treat wood; and
  - C) Prior to reuse, the wood preserving wastewaters and spent wood preserving solutions described in subsections (a)(9)(A) and (a)(9)(B) ~~of this Section~~, so long as they meet all of the following conditions:
    - i) The wood preserving wastewaters and spent wood preserving solutions are reused on-site at water-borne plants in the production process for their original intended purpose;
    - ii) Prior to reuse, the wastewaters and spent wood preserving solutions are managed to prevent release to either land or groundwater or both;
    - iii) Any unit used to manage wastewaters or spent wood preserving solutions prior to reuse can be visually or otherwise determined to prevent such releases;
    - iv) Any drip pad used to manage the wastewaters or spent wood preserving solutions prior to reuse complies with the standards in Subpart W of 35 Ill. Adm. Code 725, regardless of whether the plant generates a total of less than 100 kg/month of hazardous waste; and
    - v) Prior to operating pursuant to this exclusion, the plant owner or operator prepares a one-time notification to the Agency stating that the plant intends to claim the exclusion, giving the date on which the plant intends to begin operating under the exclusion, and containing the following language: "I have read the applicable regulation establishing an exclusion for wood preserving wastewaters

and spent wood preserving solutions and understand it requires me to comply at all times with the conditions set out in the regulation.” The plant must maintain a copy of that document in its on-site records until closure of the facility. The exclusion applies only so long as the plant meets all of the conditions. If the plant goes out of compliance with any condition, it may apply to the Agency for reinstatement. The Agency must reinstate the exclusion in writing if it finds that the plant has returned to compliance with all conditions and that the violations are not likely to recur. If the Agency denies an application, it must transmit to the applicant specific, detailed statements in writing as to the reasons it denied the application. The applicant under this subsection (a)(9)(C)(v) may appeal the Agency’s determination to deny the reinstatement, to grant the reinstatement with conditions, or to terminate a reinstatement before the Board pursuant to Section 40 of the Act [415 ILCS 5/40].

- 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) Certain oil-bearing hazardous secondary materials and recovered oil, as follows:
  - A) Oil-bearing hazardous secondary materials (i.e., sludges, by-products, or spent materials) that are generated at a petroleum refinery (standard industrial classification (SIC) code 2911) and are inserted into the petroleum refining process (SIC code 2911: including, but not limited to, distillation, catalytic cracking, fractionation, ~~gasification (as defined in 35 Ill. Adm. Code 720.110)~~, or thermal cracking units (i.e., cokers)), unless the material is placed on the land, or speculatively accumulated before being so recycled. Materials inserted into thermal cracking units

are excluded under this subsection (a)(12), provided that the coke product also does not exhibit a characteristic of hazardous waste. Oil-bearing hazardous secondary materials may be inserted into the same petroleum refinery where they are generated or sent directly to another petroleum refinery and still be excluded under this provision. Except as provided in subsection (a)(12)(B) ~~of this Section~~, oil-bearing hazardous secondary materials generated elsewhere in the petroleum industry (i.e., from sources other than petroleum refineries) are not excluded under this Section. Residuals generated from processing or recycling materials excluded under this subsection (a)(12)(A), where such materials as generated would have otherwise met a listing under Subpart D of this Part, are designated as USEPA hazardous waste number F037 listed wastes when disposed of or intended for disposal.

- B) Recovered oil that is recycled in the same manner and with the same conditions as described in subsection (a)(12)(A) ~~of this Section~~. Recovered oil is oil that has been reclaimed from secondary materials (including wastewater) generated from normal petroleum industry practices, including refining, exploration and production, bulk storage, and transportation incident thereto (SIC codes 1311, 1321, 1381, 1382, 1389, 2911, 4612, 4613, 4922, 4923, 4789, 5171, and 5172). Recovered oil does not include oil-bearing hazardous wastes listed in Subpart D of this Part; however, oil recovered from such wastes may be considered recovered oil. Recovered oil 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, nickel-cadmium batteries, and lithium batteries.
  - 15) Condensates derived from the overhead gases from kraft mill steam strippers that are used to comply with federal Clean Air Act regulation 40 CFR 63.446(e). The exemption applies only to combustion at the mill generating the condensates.
  - 16) ~~Comparable fuels or comparable syngas fuels that meet the requirements of Section 721.138.~~ This subsection corresponds with 40 CFR

261.4(a)(16), marked “reserved” by USEPA. This statement maintains structural consistency with the federal regulations.

- 17) Spent materials (as defined in Section 721.101) (other than hazardous wastes listed in Subpart D of this Part) generated within the primary mineral processing industry from which minerals, acids, cyanide, water, or other values are recovered by mineral processing or by beneficiation, provided that the following is true:
- A) The spent material is legitimately recycled to recover minerals, acids, cyanide, water, or other values;
  - B) The spent material is not accumulated speculatively;
  - C) ~~Except as provided in subsection (a)(17)(D) of this Section,~~ the spent material is stored in tanks, containers, or buildings that meet the following minimum integrity standards: a building must be an engineered structure with a floor, walls, and a roof all of which are made of non-earthen materials providing structural support (except that smelter buildings may have partially earthen floors, provided that the spent material is stored on the non-earthen portion), and have a roof suitable for diverting rainwater away from the foundation; a tank must be free standing, not be a surface impoundment (as defined in 35 Ill. Adm. Code 720.110), and be manufactured of a material suitable for containment of its contents; a container must be free standing and be manufactured of a material suitable for containment of its contents. If a tank or container contains any particulate that may be subject to wind dispersal, the owner or operator must operate the unit in a manner that controls fugitive dust. A tank, container, or building must be designed, constructed, and operated to prevent significant releases to the environment of these materials.
  - D) The Agency must allow by permit that solid mineral processing spent materials only may be placed on pads, rather than in tanks, containers, or buildings if the facility owner or operator can demonstrate the following: the solid mineral processing secondary materials do not contain any free liquid; the pads are designed, constructed, and operated to prevent significant releases of the spent material into the environment; and the pads provide the same degree of containment afforded by the non-RCRA tanks, containers, and buildings eligible for exclusion.
    - i) The Agency must also consider whether storage on pads poses the potential for significant releases via groundwater, surface water, and air exposure pathways. Factors to be considered for assessing the groundwater, surface water,

and air exposure pathways must include the following: the volume and physical and chemical properties of the spent material, including its potential for migration off the pad; the potential for human or environmental exposure to hazardous constituents migrating from the pad via each exposure pathway; and the possibility and extent of harm to human and environmental receptors via each exposure pathway.

- ii) Pads must meet the following minimum standards: they must be designed of non-earthen material that is compatible with the chemical nature of the mineral processing spent material; they must be capable of withstanding physical stresses associated with placement and removal; they must have runoff and runoff controls; they must be operated in a manner that controls fugitive dust; and they must have integrity assurance through inspections and maintenance programs.
- iii) Before making a determination under this subsection (a)(17)(D), the Agency must provide notice and the opportunity for comment to all persons potentially interested in the determination. This can be accomplished by placing notice of this action in major local newspapers, or broadcasting notice over local radio stations.

BOARD NOTE: See Subpart D of 35 Ill. Adm. Code 703 for the RCRA Subtitle C permit public notice requirements.

- E) The owner or operator provides a notice to the Agency, providing the following information: the types of materials to be recycled, the type and location of the storage units and recycling processes, and the annual quantities expected to be placed in ~~non-land-based~~ land-based units. This notification must be updated when there is a change in the type of materials recycled or the location of the recycling process.
  - F) For purposes of subsection (b)(7)-~~of this Section~~, mineral processing spent materials must be the result of mineral processing and may not include any listed hazardous wastes. Listed hazardous wastes and characteristic hazardous wastes generated by non-mineral processing industries are not eligible for the conditional exclusion from the definition of solid waste.
- 18) Petrochemical recovered oil from an associated organic chemical manufacturing facility, where the oil is to be inserted into the petroleum refining process (SIC code 2911) along with normal petroleum refinery

process streams, provided that both of the following conditions are true of the oil:

- A) The oil is hazardous only because it exhibits the characteristic of ignitability (as defined in Section 721.121) or toxicity for benzene (Section 721.124, USEPA hazardous waste code D018);
  - B) The oil generated by the organic chemical manufacturing facility is not placed on the land, or speculatively accumulated before being recycled into the petroleum refining process. An “associated organic chemical manufacturing facility” is a facility for which all of the following is true: its primary SIC code is 2869, but its operations may also include SIC codes 2821, 2822, and 2865; it is physically co-located with a petroleum refinery; and the petroleum refinery to which the oil being recycled is returned also provides hydrocarbon feedstocks to the organic chemical manufacturing facility. “Petrochemical recovered oil” is oil that has been reclaimed from secondary materials (i.e., sludges, by-products, or spent materials, including wastewater) from normal organic chemical manufacturing operations, as well as oil recovered from organic chemical manufacturing processes.
- 19) Spent caustic solutions from petroleum refining liquid treating processes used as a feedstock to produce cresylic or naphthenic acid, unless the material is placed on the land or accumulated speculatively, as defined in Section 721.101(c).
- 20) Hazardous secondary materials used to make zinc fertilizers, provided that the following conditions are satisfied:
- A) Hazardous secondary materials used to make zinc micronutrient fertilizers must not be accumulated speculatively, as defined in Section 721.101(c)(8).
  - B) A generator or intermediate handler of zinc-bearing hazardous secondary materials that are to be incorporated into zinc fertilizers must fulfill the following conditions:
    - i) It must submit a one-time notice to the Agency that contains the name, address, and USEPA identification number of the generator or intermediate handler facility, that provides a brief description of the secondary material that will be subject to the exclusion, and which identifies when the manufacturer intends to begin managing excluded zinc-bearing hazardous secondary materials under the conditions specified in this subsection (a)(20).

- ii) It must store the excluded secondary material in tanks, containers, or buildings that are constructed and maintained in a way that prevents releases of the secondary materials into the environment. At a minimum, any building used for this purpose must be an engineered structure made of non-earthen materials that provide structural support, and it must have a floor, walls, and a roof that prevent wind dispersal and contact with rainwater. A tank used for this purpose must be structurally sound and, if outdoors, it must have a roof or cover that prevents contact with wind and rain. A container used for this purpose must be kept closed, except when it is necessary to add or remove material, and it must be in sound condition. Containers that are stored outdoors must be managed within storage areas that fulfill the conditions of subsection (a)(20)(F) ~~of this Section~~:
  - iii) With each off-site shipment of excluded hazardous secondary materials, it must provide written notice to the receiving facility that the material is subject to the conditions of this subsection (a)(20).
  - iv) It must maintain records at the generator's or intermediate handler's facility for no less than three years of all shipments of excluded hazardous secondary materials. For each shipment these records must, at a minimum, contain the information specified in subsection (a)(20)(G) ~~of this Section~~.
- C) A manufacturer of zinc fertilizers or zinc fertilizer ingredients made from excluded hazardous secondary materials must fulfill the following conditions:
- i) It must store excluded hazardous secondary materials in accordance with the storage requirements for generators and intermediate handlers, as specified in subsection (a)(20)(B)(ii) ~~of this Section~~.
  - ii) It must submit a one-time notification to the Agency that, at a minimum, specifies the name, address, and USEPA identification number of the manufacturing facility and which identifies when the manufacturer intends to begin managing excluded zinc-bearing hazardous secondary materials under the conditions specified in this subsection (a)(20).

- iii) It must maintain for a minimum of three years records of all shipments of excluded hazardous secondary materials received by the manufacturer, which must at a minimum identify for each shipment the name and address of the generating facility, the name of transporter, and the date on which the materials were received, the quantity received, and a brief description of the industrial process that generated the material.
  - iv) It must submit an annual report to the Agency that identifies the total quantities of all excluded hazardous secondary materials that were used to manufacture zinc fertilizers or zinc fertilizer ingredients in the previous year, the name and address of each generating facility, and the industrial processes from which the hazardous secondary materials were generated.
- D) Nothing in this Section preempts, overrides, or otherwise negates the provision in 35 Ill. Adm. Code 722.111 that requires any person who generates a solid waste to determine if that waste is a hazardous waste.
- E) Interim status and permitted storage units that have been used to store only zinc-bearing hazardous wastes prior to the submission of the one-time notice described in subsection (a)(20)(B)(i) ~~of this Section~~, and that afterward will be used only to store hazardous secondary materials excluded under this subsection (a)(20), are not subject to the closure requirements of 35 Ill. Adm. Code 724 and 725.
- F) A container used to store excluded secondary material must fulfill the following conditions:
- i) It must have containment structures or systems sufficiently impervious to contain leaks, spills, and accumulated precipitation;
  - ii) It must provide for effective drainage and removal of leaks, spills, and accumulated precipitation; and
  - iii) It must prevent run-on into the containment system.

BOARD NOTE: Subsections (a)(20)(F)(i) through (a)(20)(F)(iii) are derived from 40 CFR 261.4(a)(20)(ii)(B)(1) through (a)(20)(ii)(B)(3). The Board added the preamble to these federal paragraphs as subsection (a)(20)(F) to comport with Illinois Administrative Code codification requirements.



- G) Required records of shipments of excluded hazardous secondary materials must, at a minimum, contain the following information:
- i) The name of the transporter and date of the shipment;
  - ii) The name and address of the facility that received the excluded material, along with documentation confirming receipt of the shipment; and
  - iii) The type and quantity of excluded secondary material in each shipment.

BOARD NOTE: Subsections (a)(20)(G)(i) through (a)(20)(G)(iii) are derived from 40 CFR 261.4(a)(20)(ii)(D)(1) through (a)(20)(ii)(D)(3). The Board added the preamble to these federal paragraphs as subsection (a)(20)(G) to comport with Illinois Administrative Code codification requirements.

- 21) Zinc fertilizers made from hazardous wastes or hazardous secondary materials that are excluded under subsection (a)(20) ~~of this Section~~, provided that the following conditions are fulfilled:

- A) The fertilizers meet the following contaminant limits:

- i) For metal contaminants:

Constituent	Maximum Allowable Total Concentration in Fertilizer, per Unit (1%) of Zinc (ppm)
Arsenic	0.3
Cadmium	1.4
Chromium	0.6
Lead	2.8
Mercury	0.3

- ii) For dioxin contaminants, the fertilizer must contain no more than eight parts per trillion of dioxin, measured as toxic equivalent (TEQ).

- B) The manufacturer performs sampling and analysis of the fertilizer product to determine compliance with the contaminant limits for metals no less frequently than once every six months, and for dioxins no less frequently than once every 12 months. Testing must also be performed whenever changes occur to manufacturing processes or ingredients that could significantly affect the amounts of contaminants in the fertilizer product. The manufacturer may use any reliable analytical method to demonstrate that no constituent of concern is present in the product at concentrations above the applicable limits. It is the responsibility of the

manufacturer to ensure that the sampling and analysis are unbiased, precise, and representative of the products introduced into commerce.

- C) The manufacturer maintains for no less than three years records of all sampling and analyses performed for purposes of determining compliance with subsection (a)(21)(B) ~~of this Section~~. Such records must at a minimum include the following:
- i) The dates and times product samples were taken, and the dates the samples were analyzed;
  - ii) The names and qualifications of the persons taking the samples;
  - iii) A description of the methods and equipment used to take the samples;
  - iv) The name and address of the laboratory facility at which analyses of the samples were performed;
  - v) A description of the analytical methods used, including any cleanup and sample preparation methods; and
  - vi) All laboratory analytical results used to determine compliance with the contaminant limits specified in this subsection (a)(21).

22) Used CRTs.

- A) Used, intact CRTs, as defined in 35 Ill. Adm. Code 720.110, are not solid waste within the United States, unless they are disposed of or speculatively accumulated, as defined in Section 721.101(c)(8), by a CRT collector or glass processor.
- B) Used, intact CRTs, as defined in 35 Ill. Adm. Code 720.110, are not solid waste when exported for recycling, provided that they meet the requirements of Section 721.140.
- C) Used, broken CRTs, as defined in 35 Ill. Adm. Code 720.110, are not solid waste, provided that they meet the requirements of Section 721.139.
- D) Glass removed from CRTs is not a solid waste provided that it meets the requirements of Section 721.139(c).

23) Hazardous secondary materials managed in land-based units reclaimed under the control of the generator. Hazardous secondary material

generated and legitimately reclaimed within the United States or its territories and ~~managed in land based units, as defined in 35 Ill. Adm. Code 720.110,~~ is not a solid waste if the following conditions are fulfilled with regard to the material under the control of the generator, provided that the material complies with subsections (a)(23)(A) and (a)(23)(B):

A) Excluded hazardous secondary materials.

- i) The hazardous secondary material is generated and reclaimed at the generating facility. (For purposes of this subsection (a)(23)(A)(i), “generating facility” means all contiguous property owned, leased, or otherwise controlled by the hazardous secondary material generator.);
- ii) The hazardous secondary material is generated and reclaimed at different facilities, if the reclaiming facility is controlled by the generator or if both the generating facility and the reclaiming facility are controlled by a person as defined in 35 Ill. Adm. Code 720.110, and if the generator provides one of the following certifications:

“On behalf of [insert generator facility name], I certify that this facility will send the indicated hazardous secondary material to [insert reclaimer facility name], which is controlled by [insert generator facility name] and that [insert name of either facility] has acknowledged full responsibility for the safe management of the hazardous secondary material.”

or

“On behalf of [insert generator facility name], I certify that this facility will send the indicated hazardous secondary material to [insert reclaimer facility name], that both facilities are under common control, and that [insert name of either facility] has acknowledged full responsibility for the safe management of the hazardous secondary material.”

For purposes of this subsection (a)(23)(A)(ii), “control” means the power to direct the policies of the facility, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate facilities on behalf of a different person, as defined in 35 Ill. Adm. Code 720.110, cannot be deemed to “control” such facilities.

The generating and receiving facilities must both maintain at their facilities for no less than three years records of hazardous secondary materials sent or received under this exclusion. In both cases, the records must contain the name of the transporter, the date of the shipment, and the type and quantity of the hazardous secondary material shipped or received under the exclusion. These requirements may be satisfied by routine business records (e.g., financial records, bills of lading, copies of USDOT shipping papers, or electronic confirmations); or

- iii) The hazardous secondary material is generated pursuant to a written contract between a tolling contractor and a toll manufacturer and is reclaimed by the tolling contractor, if the tolling contractor certifies as follows:

“On behalf of [insert tolling contractor name], I certify that [insert tolling contractor name] has a written contract with [insert toll manufacturer name] to manufacture [insert name of product or intermediate] which is made from specified unused materials, and that [insert tolling contractor name] will reclaim the hazardous secondary materials generated during this manufacture. On behalf of [insert tolling contractor name], I also certify that [insert tolling contractor name] retains ownership of, and responsibility for, the hazardous secondary materials that are generated during the course of the manufacture, including any releases of hazardous secondary materials that occur during the manufacturing process.”

The tolling contractor must maintain at its facility for no less than three years records of hazardous secondary materials received pursuant to its written contract with the tolling manufacturer, and the tolling manufacturer must maintain at its facility for no less than three years records of hazardous secondary materials shipped pursuant to its written contract with the tolling contractor. In both cases, the records must contain the name of the transporter, the date of the shipment, and the type and quantity of the hazardous secondary material shipped or received pursuant to the written contract. These requirements may be satisfied by routine business records (e.g., financial records, bills of lading, copies of USDOT shipping papers, or electronic confirmations). For purposes of this subsection (a)(23)(A)(ii), “tolling contractor” means a person who

arranges for the production of a product or intermediate made from specified unused materials through a written contract with a toll manufacturer. "Toll manufacturer" means a person who produces a product or intermediate made from specified unused materials pursuant to a written contract with a tolling contractor.

B) Management of hazardous secondary materials.

Ai) The hazardous secondary material is contained; as defined in 35 Ill. Adm. Code 720.110. A hazardous secondary material released to the environment is discarded material and a solid waste unless it is immediately recovered for the purpose of reclamation. Hazardous secondary material managed in a unit with leaks or other continuing or intermittent unpermitted releases is discarded material and a solid waste.

~~B) The material is a hazardous secondary material generated and reclaimed under the control of the generator, as defined in 35 Ill. Adm. Code 720.110;~~

~~€ii) The hazardous secondary material is not speculatively accumulated; as defined in Section 721.101(c)(8).~~

~~iii) Notice is provided, as required by 35 Ill. Adm. Code 720.142.~~

~~Điv) The hazardous secondary material is not otherwise subject to material-specific management conditions under subsection (a) of this Section when reclaimed, and it is not a spent lead acid battery (see 35 Ill. Adm. Code 726.180 and 733.102), and it does not meet either of the listing descriptions for K171 or K172 waste in Section 721.132;~~

~~v) Persons performing the recycling of hazardous secondary materials under this exclusion must maintain documentation of their legitimacy determination on-site. Documentation must be a written description of how the recycling meets all four factors in 35 Ill. Adm. Code 720.143(a). Documentation must be maintained for three years after the recycling operation has ceased.~~

~~vi) The emergency preparedness and response requirements found in Subpart M of this Part are met.~~

~~E) The reclamation of the material is legitimate, as determined pursuant to 35 Ill. Adm. Code 720.143; and~~

~~F) In addition, a person claiming the exclusion under this subsection (a)(23) must provide notification of regulated waste activity, as required by 35 Ill. Adm. Code 720.142. (For hazardous secondary material managed in a non-land-based unit, see Section 721.102(a)(2)(B)).~~

- 24) Hazardous secondary materials transferred for off-site recycling. Hazardous secondary material that is generated and then transferred to ~~another person~~ a verified reclamation facility for the purpose of reclamation is not a solid waste if the management of the material fulfills the conditions of subsections (a)(24)(A) through (a)(24)(G) ~~of this Section:~~
- A) The hazardous secondary material must not be speculatively accumulated, as defined in Section 721.101(c)(8)).
  - B) No person or facility other than the hazardous secondary material generator, the transporter, an intermediate facility, or a reclaimer manages the material; the hazardous secondary material must not be stored for more than 10 days at a transfer facility, as defined in Section 721.110; and the hazardous secondary material must be packaged according to applicable USDOT regulations codified as 49 CFR 173, 178, and 179, incorporated by reference in 35 Ill. Adm. Code 720.111, while in transport.
  - C) The hazardous secondary material must not otherwise be subject to material-specific management conditions pursuant to other provisions of this subsection (a) when reclaimed; and the hazardous secondary material must not be a spent lead-acid battery (see 35 Ill. Adm. Code 726.180 and 733.102); ~~and the material must not fulfill either of the listing descriptions for K171 or K172 waste in Section 721.132.~~
  - D) The reclamation of the hazardous secondary material must be legitimate, as determined pursuant to 35 Ill. Adm. Code 720.143.
  - E) The hazardous secondary material generator must satisfy each of the following conditions:
    - i) The hazardous secondary material must be contained as defined in 35 Ill. Adm. Code 720.110. A hazardous secondary material released to the environment is discarded and a solid waste unless it is immediately recovered for the purpose of recycling. Hazardous secondary material managed in a unit that leaks or which otherwise continuously releases hazardous secondary material is discarded material and a solid waste.

- ii) ~~This subsection (a)(24)(E)(ii) applies when non-RCRA management of hazardous secondary material will occur at a reclamation facility or transfer facility. For the purposes of this subsection (a)(24), “non-Subtitle C management” is management of the hazardous secondary material that is not addressed under a RCRA Part B permit or under the interim status facility standards (of 35 Ill. Adm. Code 725 or similar regulations authorized by USEPA as equivalent to 40 CFR 265). Prior to arranging The hazardous secondary material generator must arrange for transport of hazardous secondary materials to a verified reclamation facility in the United States. A “verified reclamation facility” is a facility that has been granted a solid waste determination pursuant to 35 Ill. Adm. Code 720.131(d), or a reclamation facility where non-Subtitle C management will occur, the hazardous secondary material generator must make reasonable efforts to ensure that the reclaimer intends to properly and legitimately reclaim the hazardous secondary material and not discard it, and that the reclaimer will manage the hazardous secondary material in a manner that is protective of human health and the environment the management of the hazardous secondary material is regulated by any of 35 Ill. Adm. Code 724, 725, 726, or 727. If the hazardous secondary material will pass through an intermediate facility where, the facility must be a “verified intermediate facility” that has been granted a solid waste determination pursuant to 35 Ill. Adm. Code 720.131(d) or RCRA-management of the hazardous secondary materials will occur at that facility must be regulated by any of 35 Ill. Adm. Code 724, 725, 726, or 727, and the hazardous secondary material generator must make contractual arrangements with the intermediate facility to ensure that the hazardous secondary material is sent to the reclamation facility identified by the hazardous secondary material generator, and the hazardous secondary material generator must perform reasonable efforts to ensure that the intermediate facility will manage the hazardous secondary material in a manner that is protective of human health and the environment. Reasonable efforts must be repeated at a minimum of once every three years for the hazardous secondary material generator to claim the exclusion of this subsection (a)(24) and to send the hazardous secondary materials to a reclaimer and any intermediate facility. In making these reasonable efforts, the generator may use any credible evidence available, including information gathered by the hazardous secondary~~

material generator, provided by the reclaimer or intermediate facility, or provided by a third party. The hazardous secondary material generator must make the series of affirmative determinations set forth in subsection (a)(24)(H) of this Section for each reclamation facility and intermediate facility that will manage its waste.

~~BOARD NOTE: Corresponding 40 CFR 261.4(a)(24)(v)(B) makes it clear that USEPA intends that the generator undertake this determination for each reclaimer that will manage its hazardous secondary material. The Board added a definition of “non-Subtitle C management” and substituted this term for the language “management of the hazardous secondary materials is not addressed under a RCRA Part B permit or interim status standards.” Although the Board shifted the language for enhanced readability, the Board intends no shift in meaning. The Board moved the material from 40 CFR 261.4(a)(24)(v)(B)(1) through (a)(24)(v)(B)(5) to appear as 35 Ill. Adm. Code 721.104(a)(24)(H)(i) through (a)(24)(H)(v). This movement allowed compliance with codification requirements relating to the maximum permissible indent level.~~

- iii) ~~—The hazardous secondary material generator must execute a certification statement that includes the following language, together with the printed name and official title of an authorized representative of the hazardous secondary material generator, the authorized representative’s signature, and the date signed:~~

~~“I hereby certify in good faith and to the best of my knowledge that, prior to arranging for transport of excluded hazardous secondary materials to [insert the name of each reclamation facility and any intermediate facility that will manage the materials], reasonable efforts were made in accordance with 35 Ill. Adm. Code 721.104(a)(24)(E)(ii) (and corresponding 40 CFR 261.4(a)(24)(v)(B)) to ensure that the hazardous secondary materials would be recycled legitimately and would be otherwise managed in a manner that is protective of human health and the environment, and that such efforts were based on current and accurate information.”~~



BOARD NOTE: Corresponding 40 CFR 261.4(a)(24)(v)(C) combines the requirements for records retention and availability for inspection with the requirement for certification. The Board combined the certification requirements from 40 CFR 261.4(a)(24)(v)(C), (a)(24)(v)(C)(1), and (a)(24)(v)(C)(2) in this single subsection (a)(24)(E)(iii). This combination allowed compliance with codification requirements relating to the maximum permissible indent level. The Board moved the records retention and availability for inspection requirements from 40 CFR 261.4(a)(24)(v)(C) to subsection (a)(24)(E)(iv) of this Section. This forced renumbering 40 CFR 261.4(a)(24)(v)(D) and (a)(24)(v)(E) as subsections (a)(24)(E)(v) and (a)(24)(E)(vi) of this Section. Although the Board shifted the language for enhanced readability, the Board intends no shift in meaning.

- viii) The hazardous secondary material generator must maintain certain records at the generating facility for a minimum of three years that document every off-site shipment of hazardous secondary materials. The documentation for each shipment must, at a minimum, include the following information about the shipment: the name of the transporter and date of the shipment; the name and address of each reclaimer and intermediate facility to which the hazardous secondary material was sent; and the type and quantity of hazardous secondary material in the shipment.

BOARD NOTE: The Board combined and moved the shipping documentation and records retention requirements of corresponding 40 CFR 261.4(a)(24)(v)(C) and (a)(24)(v)(C)(1) through (a)(24)(v)(C)(3) to this single subsection (a)(24)(E)(iii). This combination allowed compliance with codification requirements relating to the maximum permissible indent level.

- iv) ~~The hazardous secondary material generator must maintain the following records for a minimum of three years: documentation and certification that the generator made reasonable efforts, prior to transferring hazardous secondary material, for each reclamation facility and, if applicable, intermediate facility where Subtitle C management of the hazardous secondary materials will occur. Documentation and certification must be made available, within 72 hours, or within any longer period of time specified by the Agency, upon request by the Agency.~~

~~BOARD NOTE: The Board moved the records retention and availability for inspection requirements of corresponding 40 CFR 261.4(a)(24)(v)(C) to this subsection (a)(24)(E)(iv).~~

- ~~v) The hazardous secondary material generator must maintain certain records at the generating facility for a minimum of three years that document every off-site shipment of hazardous secondary materials. The documentation for each shipment must, at a minimum, include the following information about the shipment: the name of the transporter and date of the shipment; the name and address of each reclaimer and intermediate facility to which the hazardous secondary material was sent; and the type and quantity of hazardous secondary material in the shipment.~~

~~BOARD NOTE: The Board combined and moved the shipping documentation and records retention requirements of corresponding 40 CFR 261.4(a)(24)(v)(D) and (a)(24)(v)(D)(1) through (a)(24)(v)(D)(3) to this single subsection (a)(24)(E)(v). This combination allowed compliance with codification requirements relating to the maximum permissible indent level.~~

- ~~viiv) The hazardous secondary material generator must maintain at the generating facility, for a minimum of three years, for every off-site shipment of hazardous secondary materials, confirmations of receipt from each reclaimer and intermediate facility to which its hazardous secondary materials were sent. Each confirmation of receipt must include the name and address of the reclaimer (or intermediate facility), the type and quantity of the hazardous secondary materials received, and the date on which the facility received the hazardous secondary materials. The generator may satisfy this requirement using routine business records (e.g., financial records, bills of lading, copies of USDOT shipping papers, or electronic confirmations of receipt).~~

~~BOARD NOTE: The Board moved the shipment confirmation documentation and records retention requirements of corresponding 40 CFR 261.4(a)(24)(v)(E) to this subsection (a)(24)(E)(vi).~~

- v) The hazardous secondary material generator must comply with the emergency preparedness and response conditions in Subpart M of this Part.

F) The reclaimer of hazardous secondary material or any intermediate facility, as defined in 35 Ill. Adm. Code 720.110, that manages material which is excluded from regulation pursuant to this subsection (a)(24) must satisfy all of the following conditions:

- i) The owner or operator of a reclamation or intermediate facility must maintain at its facility for a minimum of three years records of every shipment of hazardous secondary material that the facility received and, if applicable, for every shipment of hazardous secondary material that the facility received and subsequently sent off-site from the facility for further reclamation. For each shipment, these records must, at a minimum, contain the following information: the name of the transporter and date of the shipment; the name and address of the hazardous secondary material generator and, if applicable, the name and address of the reclaimer or intermediate facility from which the facility received the hazardous secondary materials; the type and quantity of hazardous secondary material in the shipment; and, for hazardous secondary materials that the facility subsequently transferred off-site for further reclamation after receiving it, the name and address of the (subsequent) reclaimer and any intermediate facility to which the facility sent the hazardous secondary material.

BOARD NOTE: The Board combined the provisions from 40 CFR 261.4(a)(24)(vi)(A) and (a)(24)(vi)(A)(1) through (a)(24)(vi)(A)(3) that enumerate the required information into this single subsection (a)(24)(F)(i). This combination allowed compliance with codification requirements relating to the maximum permissible indent level.

- ii) The intermediate facility must send the hazardous secondary material to the reclaimers designated by the generator of the hazardous secondary materials.
- iii) The reclaimer or intermediate facility that receives a shipment of hazardous secondary material must send a confirmation of receipt to the hazardous secondary material generator for each off-site shipment of hazardous secondary materials. A confirmation of receipt must include the name and address of the reclaimer (or intermediate facility), the type and quantity of the hazardous secondary materials received, and the date on which the facility received the hazardous secondary materials. The reclaimer or intermediate facility may satisfy this requirement using routine business records (e.g.,

financial records, bills of lading, copies of USDOT shipping papers, or electronic confirmations of receipt).

- iv) The reclaimer or intermediate facility must manage the hazardous secondary material in a manner that is at least as protective of human health and the environment as that employed for analogous raw material, and the material must be contained. An “analogous raw material” is a raw material for which the hazardous secondary material substitutes and that serves the same function and has similar physical and chemical properties as the hazardous secondary material.
  - v) A reclaimer of hazardous secondary materials must manage any residuals that are generated from its reclamation processes in a manner that is protective of human health and the environment. If any residuals of the reclamation process exhibit a characteristic of hazardous waste, as defined in Subpart C of this Part, or if the residuals themselves are specifically listed as hazardous waste in Subpart D of this Part, those residuals are hazardous waste. The reclaimer and any subsequent persons must manage that hazardous waste in accordance with the applicable requirements of 35 Ill. Adm. Code: Subtitle G or similar regulations authorized by USEPA as equivalent to 40 CFR 260 through 272.
  - vi) The reclaimer and intermediate facility must have financial assurance that satisfies the requirements of Subpart H of this Part.
  - vii) The reclaimer and intermediate facility must have been granted a solid waste determination pursuant to 35 Ill. Adm. Code 720.131(d), or have a RCRA Part B permit or be subject to interim status standards that address the management of the hazardous secondary materials; and
- G) Any person claiming the exclusion for recycled hazardous secondary material pursuant to this subsection (a)(24) must provide notification as required by 35 Ill. Adm. Code 720.142.
- ~~H) For the purposes of subsection (a)(24)(E)(ii) of this Section, the hazardous secondary material generator must affirmatively determine that each of the following conditions is true for each reclamation facility and any intermediate facility that will manage the generator’s hazardous secondary material:~~

- i) ~~Available information indicates that the reclamation process is legitimate recycling, as determined pursuant to 35 Ill. Adm. Code 720.143. In making this determination, the hazardous secondary material generator may rely on its existing knowledge of the physical and chemical properties of the hazardous secondary material, as well as on information from other sources (e.g., the reclamation facility, audit reports, etc.) about the reclamation process. (By making this determination, the hazardous secondary material generator has also satisfied the requirement in 35 Ill. Adm. Code 720.143(a) that the generator demonstrate that the recycling is legitimate).~~
- ii) ~~Publicly available information indicates that each reclamation facility and any intermediate facility that is used by the hazardous secondary material generator has submitted the notification required by 35 Ill. Adm. Code 720.142, and these facilities have submitted the required proofs of financial assurance as required by the applicable of Section 721.243(a)(1), (b)(1), (c)(1), (d)(1), (e)(3), and (g) and notification of financial assurance pursuant to 35 Ill. Adm. Code 720.142(a)(5). In making this dual determination, the hazardous secondary material generator may rely on the available information documenting the reclamation facility's and any intermediate facility's compliance with the notification requirements pursuant to 35 Ill. Adm. Code 720.142, including the requirement in 35 Ill. Adm. Code 720.142(a)(5) to notify the Agency whether the reclaimer or intermediate facility has financial assurance.~~
- iii) ~~Publicly available information indicates that each reclamation facility and any intermediate facility that is used by the hazardous secondary material generator has not had any formal enforcement actions taken against the facility within the previous three years for violations of the RCRA hazardous waste regulations, and the facility has not been classified as a significant non-complier (SNC) with RCRA Subtitle C requirements. In making this determination, the hazardous secondary material generator may rely on the publicly available information from USEPA, the Agency, or the Office of the Attorney General. If the reclamation facility or any intermediate facility that is used by the hazardous secondary material generator has had a formal enforcement action taken against the facility within the previous three years for violations of the RCRA hazardous waste regulations, or if the facility has been~~

classified as a SNC with RCRA Subtitle C requirements, the hazardous secondary material generator must have credible evidence that the facility will manage the hazardous secondary materials properly. In making this determination, the hazardous secondary material generator can obtain additional information from USEPA, the Agency, the Office of the Attorney General, or the facility itself which indicates that the facility has addressed the violations, taken remedial steps to address the violations and prevent future violations, or that the violations are not relevant to the proper management of the generator's hazardous secondary materials.

BOARD NOTE: USEPA or a state may make a formalized determination that a facility is a SNC (pronounced "snick") pursuant to USEPA's "Hazardous Waste Civil Enforcement Response Policy" (most recent version: December 2003, available from USEPA, Envirofacts Data Warehouse ([www.epa.gov/compliance/resources/policies/civil/rera/finalerp1203.pdf](http://www.epa.gov/compliance/resources/policies/civil/rera/finalerp1203.pdf))). USEPA operates the online RCRAInfo database ([www.epa.gov/enviro/html/reris/](http://www.epa.gov/enviro/html/reris/)) from which interested persons can learn whether a facility has significant federal enforcement action against it, or if it is a SNC.

- iv) — Available information indicates that the reclamation facility and any intermediate facility used by the hazardous secondary material generator have the equipment and trained personnel to safely recycle the hazardous secondary material. In making this determination, the generator may rely on a description made by the reclamation facility or an independent third party of the equipment and trained personnel that the facility will use to manage and recycle the generator's hazardous secondary material.
- v) — If residuals are generated from the reclamation of the excluded hazardous secondary materials, the reclamation facility has the permits required (if any) to manage the residuals. If the reclamation facility does not have required permits, the facility has a contract with an appropriately permitted facility to dispose of the residuals. If the reclamation facility does not have required permits or a contract with a permitted facility, the hazardous secondary material generator has credible evidence that the residuals will be managed in a manner that is protective of human health and the environment. In making these determinations, the hazardous secondary material generator

may rely on publicly available information from USEPA or the Agency, or on information provided by the facility itself.

~~BOARD NOTE: The Board moved 40 CFR 261.4(a)(24)(v)(B)(1) through (a)(24)(v)(B)(5) to appear as 35 Ill. Adm. Code 721.104(a)(24)(H)(i) through (a)(24)(H)(v), which set forth the determinations mandated for the purposes of subsection (a)(24)(E)(ii). This movement allowed compliance with codification requirements relating to the maximum permissible indent level.~~

- ~~25) Hazardous secondary materials exported for recycling. Hazardous secondary material that is exported from the United States and reclaimed at a reclamation facility located in a foreign country is not a solid waste, so long as the hazardous secondary material generator complies with the applicable requirements of subsections (a)(24)(A) through (a)(24)(E) of this Section, except that the requirements of subsection (a)(24)(H)(ii) of this Section (requiring the use of publicly available information to verify that the facility has submitted required notifications) do not apply to foreign reclaimers and intermediate facilities, and the hazardous secondary material generator also complies with the following requirements:~~
- ~~A) The generator must notify the Agency and USEPA of an intended export before the hazardous secondary material is scheduled to leave the United States. The generator must submit a complete notification at least 60 days before the initial shipment is intended to be shipped off-site. This notification may cover export activities extending over a period up to 12 months in duration, but not longer. The notification must be in writing and signed by the hazardous secondary material generator, and must include the following information:~~
- ~~i) The name, mailing address, telephone number and USEPA identification number (if applicable) of the hazardous secondary material generator;~~
- ~~ii) A description of the hazardous secondary material; the USEPA hazardous waste number that would apply were the hazardous secondary material to be managed as hazardous waste; and the USDOT proper shipping name, hazard class, and identification number (UN or NA number) for each hazardous secondary material, as identified in 49 CFR 171 through 173, each incorporated by reference in 35 Ill. Adm. Code 720.111;~~

- iii) ~~— The estimated frequency or rate at which the hazardous secondary material is to be exported, and the period of time over which the hazardous secondary material is to be exported;~~
  - iv) ~~— The estimated total quantity of hazardous secondary material;~~
  - v) ~~— All points of entry to and departure from each foreign country through which the hazardous secondary material will pass;~~
  - vi) ~~— A description of the means by which each shipment of the hazardous secondary material will be transported (e.g., mode of transportation vehicle (air, highway, rail, water, etc.), and the types of container (drums, boxes, tanks, etc.));~~
  - vii) ~~— A description of the manner in which the hazardous secondary material will be reclaimed in the receiving country;~~
  - viii) ~~— The name and address of each reclaimer, any intermediate facility, and any alternative reclaimer and intermediate facilities; and~~
  - ix) ~~— The name of any transit countries through which the hazardous secondary material will be sent, together with a description of the approximate length of time the material will remain in each transit country and the nature of the handling of the material while in the country (for purposes of this Section, the meanings of the terms “Acknowledgement of Consent,” “receiving country,” and “transit country” are as defined in 35 Ill. Adm. Code 722.151, with the exception that the terms in this Section refer to hazardous secondary materials, rather than hazardous waste).~~
- B) ~~— Submission of notification of intent to export hazardous secondary material. Whether delivered by mail or hand delivery, the following words must prominently appear on the front of the envelope: “Attention: Notification of Intent to Export.”~~
- i) ~~— A notification that is submitted by mail must be sent to the following mailing addresses:~~

~~Office of Enforcement and Compliance Assurance  
Office of Federal Activities~~



~~International Compliance Assurance Division (Mail Code 2254A)  
Environmental Protection Agency  
1200 Pennsylvania Ave., NW.  
Washington, DC 20460~~

~~Permits Section  
Division of Land Pollution Control  
Illinois Environmental Protection Agency  
P.O. Box 19276  
Springfield, Illinois 62794-9276~~

ii) ~~— A notification that is hand delivered must be delivered to the following addresses:~~

~~Office of Enforcement and Compliance Assurance  
Office of Federal Activities  
International Compliance Assurance Division  
Environmental Protection Agency  
Ariel Rios Bldg., Room 6144  
12th St. and Pennsylvania Ave., NW.  
Washington, DC 20004~~

~~Permits Section  
Division of Land Pollution Control  
Illinois Environmental Protection Agency  
1021 North Grand Avenue East  
Springfield, Illinois 62794-9276~~

C) ~~— Except for a change in the telephone number submitted pursuant to subsection (a)(25)(A)(i) of this Section or a decrease in the quantity of hazardous secondary material indicated pursuant to subsection (a)(25)(A)(iv) of this Section, when the conditions specified on the original notification change (including any exceedance of the estimate of the quantity of hazardous secondary material specified in the original notification), the hazardous secondary material generator must provide the Agency and USEPA with a written re-notification of the change. The shipment cannot take place until consent of the receiving country to the changes (except for changes to subsection (a)(25)(A)(ix) of this Section and in the ports of entry to and departure from transit countries pursuant to subsection (a)(25)(A)(v) of this Section) has been obtained and the hazardous secondary material generator receives from USEPA an Acknowledgment of Consent reflecting the receiving country's consent to the changes.~~

- ~~D) Upon request from the Agency or USEPA, the hazardous secondary material generator must furnish to the Agency and USEPA any additional information that a receiving country requests in order to respond to a notification.~~
- ~~E) USEPA has stated in corresponding 40 CFR 261.4(a)(25)(v) that it will provide a complete notification to the receiving country and any transit countries. A notification is complete when USEPA determines that the notification satisfies the requirements of subsection (a)(25)(A) of this Section. When a claim of confidentiality is asserted with respect to any notification information required by subsection (a)(25)(A) of this Section, USEPA has stated in corresponding 40 CFR 261.4(a)(25)(v) that it may find the notification not complete until any such claim is resolved in accordance with 40 CFR 260.2.~~
- ~~F) The export of hazardous secondary material pursuant to this subsection (a)(25) is prohibited, unless the receiving country consents to the intended export. When the receiving country consents in writing to the receipt of the hazardous secondary material, USEPA has stated in corresponding 40 CFR 261.4(a)(25)(vi) that it will send an Acknowledgment of Consent to the hazardous secondary material generator. When the receiving country objects to receipt of the hazardous secondary material or withdraws a prior consent, USEPA has stated that it will notify the hazardous secondary material generator in writing. USEPA has stated that it will also notify the hazardous secondary material generator of any responses from transit countries.~~
- ~~G) For exports to OECD Member countries, the receiving country may respond to the notification using tacit consent. If no objection has been lodged by any receiving country or transit countries to a notification provided pursuant to subsection (a)(25)(A) of this Section within 30 days after the date of issuance of the acknowledgement of receipt of notification by the competent authority of the receiving country, the trans-boundary movement may commence. In such cases, USEPA has stated in corresponding 40 CFR 261.4(a)(25)(vii) that it will send an Acknowledgment of Consent to inform the hazardous secondary material generator that the receiving country and any relevant transit countries have not objected to the shipment, and are thus presumed to have consented tacitly. Tacit consent expires one calendar year after the close of the 30-day period; re-notification and renewal of all consents is required for exports after that date.~~

- ~~H) — A copy of the Acknowledgment of Consent must accompany the shipment. The shipment must conform to the terms of the Acknowledgment of Consent.~~
- ~~I) — If a shipment cannot be delivered for any reason to the reclaimer, intermediate facility or the alternate reclaimer or alternate intermediate facility, the hazardous secondary material generator must re-notify the Agency and USEPA of a change in the conditions of the original notification to allow shipment to a new reclaimer in accordance with subsection (a)(25)(C) of this Section and obtain another Acknowledgment of Consent.~~
- ~~J) — The hazardous secondary material generator must keep a copy of each notification of intent to export and each Acknowledgment of Consent for a period of three years following receipt of the Acknowledgment of Consent.~~
- ~~K) — Annual reporting of hazardous secondary material exports. A hazardous secondary material generator must file with the Agency and USEPA, no later than March 1 of each year, a report that summarizes the types, quantities, frequency, and ultimate destinations of all hazardous secondary materials exported during the previous calendar year. Annual reports must be sent to the addresses listed in subsection (a)(25)(B) of this Section (for mail or hand delivery, as appropriate) for submission notification of intent to export hazardous secondary material. The annual reports must include the following information:~~
- ~~i) — The name, mailing and site addresses, and USEPA identification number (if applicable) of the hazardous secondary material generator;~~
  - ~~ii) — The calendar year covered by the report;~~
  - ~~iii) — The name and site address of each reclaimer and intermediate facility that received exported hazardous secondary material from the generator;~~
  - ~~iv) — By reclaimer and intermediate facility, for each hazardous secondary material exported, a description of the hazardous secondary material and the USEPA hazardous waste number that would apply were the hazardous secondary material to be managed as hazardous waste; the USDOT hazard class for the material, as determined pursuant to 49 CFR 171 through 173, each incorporated by reference in 35 Ill. Adm. Code 720.111; the name and USEPA identification number (where applicable) for each~~

~~transporter used; the total amount of hazardous secondary material shipped; and the number of shipments pursuant to each notification;~~

- ~~v) A certification signed by the hazardous secondary material generator 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.”~~

- ~~L) Any person that claims an exclusion under this subsection (a)(25) must provide notification as required by 35 Ill. Adm. Code 720.142.~~

- 25) This subsection (a)(25) corresponds with 40 CFR 261.4(a)(25), which USEPA removed and marked “reserved.” This statement maintains structural consistency with the corresponding federal regulations.
- 26) Solvent-contaminated wipes that are sent for cleaning and reuse are not solid wastes from the point of generation, provided that all of the following conditions are fulfilled:
- A) The solvent-contaminated wipes, when accumulated, stored, and transported, are contained in non-leaking, closed containers that are labeled “Excluded Solvent-Contaminated Wipes.” The containers must be able to contain free liquids, should free liquids occur. During accumulation, a container is considered closed when there is complete contact between the fitted lid and the rim, except when it is necessary to add or remove solvent-contaminated wipes. When the container is full, when the solvent-contaminated wipes are no longer being accumulated, or when the container is being transported, the container must be sealed with all lids properly and securely affixed to the container and all openings tightly bound or closed sufficiently to prevent leaks and emissions;
  - B) The solvent-contaminated wipes may be accumulated by the generator for up to 180 days from the start date of accumulation for each container prior to being sent for cleaning;

- C) At the point of being sent for cleaning on-site or at the point of being transported off-site for cleaning, the solvent-contaminated wipes must contain no free liquids, as defined in 35 Ill. Adm. Code 720.110;
- D) Free liquids removed from the solvent-contaminated wipes or from the container holding the wipes must be managed according to the applicable regulations found in this Part and 35 Ill. Adm. Code 720, 722 through 728, and 733;
- E) Generators must maintain at their site the following documentation:
  - i) The name and address of the laundry or dry cleaner that is receiving the solvent-contaminated wipes;
  - ii) The documentation that the 180-day accumulation time limit in 35 Ill. Adm. Code 721.104(a)(26)(B) is being met; and
  - iii) A description of the process the generator is using to ensure that the solvent-contaminated wipes contain no free liquids at the point of being laundered or dry cleaned on-site or at the point of being transported off-site for laundering or dry cleaning; and
- F) The solvent-contaminated wipes are sent to a laundry or dry cleaner whose discharge, if any, is regulated under sections 301 and 402 or section 307 of the federal Clean Water Act (33 USC 1311 and 1341 or 33 USC 1317) or equivalent Illinois or sister-state requirements approved by USEPA pursuant to 33 USC 1311 through 1346 and 1370.

27) Hazardous secondary material that is generated and then transferred to another person for the purpose of remanufacturing is not a solid waste, provided that the following conditions are fulfilled:

BOARD NOTE: The North American Industrial Classification System (NAICS) codes used in this subsection (a)(27) are defined in the NAICS Manual, available from the Office of Management and Budget and incorporated by reference in 35 Ill. Adm. Code 720.111.

- A) The hazardous secondary material consists of one or more of the following spent solvents: toluene, xylenes, ethylbenzene, 1,2,4-trimethylbenzene, chlorobenzene, n-hexane, cyclohexane, methyl tert-butyl ether, acetonitrile, chloroform, chloromethane, dichloromethane, methyl isobutyl ketone, N,N-dimethylformamide, tetrahydrofuran, n-butyl alcohol, ethanol, or methanol.

- B) The hazardous secondary material originated from using one or more of the solvents listed in subsection (a)(27)(A) in a commercial grade for reacting, extracting, purifying, or blending chemicals (or for rinsing out the process lines associated with these functions) in the pharmaceutical manufacturing (NAICS 325412), basic organic chemical manufacturing (NAICS 325199), plastics and resins manufacturing (NAICS 325211), or the paints and coatings manufacturing sectors (NAICS 325510).
- C) The hazardous secondary material generator sends the hazardous secondary material spent solvents listed in subsection (a)(27)(A) to a remanufacturer in the pharmaceutical manufacturing (NAICS 325412), basic organic chemical manufacturing (NAICS 325199), plastics and resins manufacturing (NAICS 325211), or the paints and coatings manufacturing sectors (NAICS 325510).
- D) After remanufacturing one or more of the solvents listed in subsection (a)(27)(A), the use of the remanufactured solvent must be limited to reacting, extracting, purifying, or blending chemicals (or for rinsing out the process lines associated with these functions) in the pharmaceutical manufacturing (NAICS 325412), basic organic chemical manufacturing (NAICS 325199), plastics and resins manufacturing (NAICS 325211), and the paints and coatings manufacturing sectors (NAICS 325510) or to using them as ingredients in a product. These allowed uses correspond to chemical functional uses enumerated in 40 CFR 711.15(b)(4)(i)(C) (Reporting Information to EPA), incorporated by reference in 35 Ill. Adm. Code 720.111, including Industrial Function Category Codes U015 (solvents consumed in a reaction to produce other chemicals) and U030 (solvents that become part of the mixture);

BOARD NOTE: The Board observes that the citation to Toxic Substances Control Act function categories and use of the word “including” to preface specific example Industrial Function Category Codes does not expand the range of permissible uses beyond the express limitations recited in the first segment of this subsection (a)(27)(D) and subsection (a)(27)(E).

- E) After remanufacturing one or more of the solvents listed in subsection (a)(27)(i), the use of the remanufactured solvent does not involve cleaning or degreasing oil, grease, or similar material from textiles, glassware, metal surfaces, or other articles. (These disallowed continuing uses correspond to chemical functional uses in Industrial Function Category Code U029 (solvents (for cleaning and degreasing)) in 40 CFR 711.15(b)(4)(i)(C), incorporated by reference in 35 Ill. Adm. Code 720.111; and

- F) Both the hazardous secondary material generator and the remanufacturer must fulfill the following requirements:
- i) The generator and remanufacturer must notify USEPA Region 5 and the Agency, and update the notification every two years per 35 Ill. Adm. Code 720.142;
  - ii) The generator and remanufacturer must develop and maintain an up-to-date remanufacturing plan which identifies the information enumerated in subsection (a)(27)(G).
- BOARD NOTE: The Board moved corresponding 40 CFR 261.4(a)(27)(vi)(B)(I) through (a)(27)(vi)(B)(I) to appear as subsections (a)(27)(G)(i) through (a)(27)(G)(v) to comport with codification requirements.
- iii) The generator and remanufacturer must maintain records of shipments and confirmations of receipts for a period of three years from the dates of the shipments;
  - iv) The generator and remanufacturer must, prior to remanufacturing, store the hazardous spent solvents in tanks or containers that meet technical standards found in Subparts I and J of this Part, with the tanks and containers being labeled or otherwise having an immediately available record of the material being stored;
  - v) The generator and remanufacturer must, during remanufacturing, and during storage of the hazardous secondary materials prior to remanufacturing, the remanufacturer certifies that the remanufacturing equipment, vents, and tanks are equipped with and are operating air emission controls in compliance with the applicable Clean Air Act regulations of 40 CFR 60, 61 and 63, incorporated by reference in 35 Ill. Adm. Code 720.111; or, absent such Clean Air Act standards for the particular operation or piece of equipment covered by the remanufacturing exclusion, are in compliance with the appropriate standards in subparts AA (vents), BB (equipment) and CC (tank storage) of this Part; and
  - vi) The generator and remanufacturer must meet the requirements prohibiting speculative accumulation in Section 721.101(c)(8).
- G) The following information items are required elements for a remanufacturing plan.

- i) The name, address and USEPA ID number of the generators and the remanufacturers;
- ii) The types and estimated annual volumes of spent solvents to be remanufactured;
- iii) The processes and industry sectors that generate the spent solvents;
- iv) The specific uses and industry sectors for the remanufactured solvents; and
- v) A certification from the remanufacturer stating as follows:

“On behalf of [insert remanufacturer facility name], I certify that this facility is a remanufacturer under pharmaceutical manufacturing (NAICS 325412), basic organic chemical manufacturing (NAICS 325199), plastics and resins manufacturing (NAICS 325211), and/or the paints and coatings manufacturing sectors (NAICS 325510), and will accept the spent solvent(s) for the sole purpose of remanufacturing into commercial-grade solvent(s) that will be used for reacting, extracting, purifying, or blending chemicals (or for rinsing out the process lines associated with these functions) or for use as product ingredient(s). I also certify that the remanufacturing equipment, vents, and tanks are equipped with and are operating air emission controls in compliance with the appropriate Clean Air Act regulations under 40 CFR part 60, part 61 or part 63, or, absent such Clean Air Act standards for the particular operation or piece of equipment covered by the remanufacturing exclusion, are in compliance with the appropriate standards in Section 721, subparts AA (vents), BB (equipment) and CC (tank storage).”

BOARD NOTE: Subsections (a)(27)(G)(i) through (a)(27)(G)(v) correspond with 40 CFR 261.4(a)(27)(vi)(B)(I) through (a)(27)(vi)(B)(I), moved to this subsection (a)(27)(G) to comport with codification requirements.

- 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 of, 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 must not be deemed to be treating, storing, disposing of, or otherwise managing hazardous wastes for the purposes of regulation under this Part, if the following describe the facility:

- A) The facility receives and burns only the following waste:
  - i) Household waste (from single and multiple dwellings, hotels, motels, and other residential sources); or
  - ii) Solid waste from commercial or industrial sources that does not contain hazardous waste; and
- B) The 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 USC 6921(i)) do not exclude the ash from facilities covered by this subsection (b)(1) 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) Coal and fossil fuel combustion waste.
  - ~~4A)~~ 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.

- B) The following wastes generated primarily from processes that support the combustion of coal or other fossil fuels that are co-disposed with the wastes in subsection (b)(4)(A), except as provided by 35 Ill. Adm. Code 726.112 for facilities that burn or process hazardous waste:
- i) Coal pile run-off. For purposes of subsection (b)(4), coal pile run-off means any precipitation that drains off coal piles.
  - ii) Boiler cleaning solutions. For purposes of subsection (b)(4), boiler cleaning solutions means water solutions and chemical solutions used to clean the fire-side and waterside of the boiler.
  - iii) Boiler blowdown. For purposes of subsection (b)(4), boiler blowdown means water purged from boilers used to generate steam.
  - iv) Process water treatment and demineralizer regeneration wastes. For purposes of subsection (b)(4), process water treatment and demineralizer regeneration wastes means sludges, rinses, and spent resins generated from processes to remove dissolved gases, suspended solids, and dissolved chemical salts from combustion system process water.
  - v) Cooling tower blowdown. For purposes of subsection (b)(4), cooling tower blowdown means water purged from a closed cycle cooling system. Closed cycle cooling systems include cooling towers, cooling ponds, or spray canals.
  - vi) Air heater and precipitator washes. For purposes of subsection (b)(4), air heater and precipitator washes means wastes from cleaning air preheaters and electrostatic precipitators.
  - vii) Effluents from floor and yard drains and sumps. For purposes of subsection (b)(4), effluents from floor and yard drains and sumps means wastewaters, such as wash water, collected by or from floor drains, equipment drains, and sumps located inside the power plant building; and wastewaters, such as rain runoff, collected by yard drains and sumps located outside the power plant building.
  - viii) Wastewater treatment sludges. For purposes of subsection (b)(4), wastewater treatment sludges refers to sludges

generated from the treatment of wastewaters specified in subsections (b)(4)(B)(I) through (vi).

- 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 (Section 721.124 and Appendix B to this Part) 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 the waste generator shows the following:
    - 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) The following are 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):
    - 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.
- A) For purposes of this subsection (b)(7), 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.

- B) For the purposes of this subsection (b)(7), solid waste from the processing of ores and minerals includes only the following wastes as generated:
- i) Slag from primary copper processing;
  - ii) Slag from primary lead processing;
  - iii) Red and brown muds from bauxite refining;
  - iv) Phosphogypsum from phosphoric acid production;
  - v) Slag from elemental phosphorus production;
  - vi) Gasifier ash from coal gasification;
  - vii) Process wastewater from coal gasification;
  - viii) Calcium sulfate wastewater treatment plant sludge from primary copper processing;
  - ix) Slag tailings from primary copper processing;
  - x) Fluorogypsum from hydrofluoric acid production;
  - xi) Process wastewater from hydrofluoric acid production;
  - xii) Air pollution control dust or sludge from iron blast furnaces;
  - xiii) Iron blast furnace slag;
  - xiv) Treated residue from roasting and leaching of chrome ore;
  - xv) Process wastewater from primary magnesium processing by the anhydrous process;
  - xvi) Process wastewater from phosphoric acid production;
  - xvii) Basic oxygen furnace and open hearth furnace air pollution control dust or sludge from carbon steel production;
  - xviii) Basic oxygen furnace and open hearth furnace slag from carbon steel production;
  - xix) Chloride processing waste solids from titanium tetrachloride production; and
  - xx) Slag from primary zinc production.

- C) A residue derived from co-processing mineral processing secondary materials with normal beneficiation raw materials or with normal mineral processing raw materials remains excluded under this subsection (b) if the following conditions are fulfilled:
- i) The owner or operator processes at least 50 percent by weight normal beneficiation raw materials or normal mineral processing raw materials; and
  - ii) The owner or operator legitimately reclaims the secondary mineral processing materials.
- 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 (b)(11) 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 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.
- 15) Leachate or gas condensate collected from landfills where certain solid wastes have been disposed of, under the following circumstances:
- A) The following conditions must be fulfilled:
- i) The solid wastes disposed of would meet one or more of the listing descriptions for the following USEPA hazardous waste numbers that are generated after the effective date listed for the waste:
- | USEPA Hazardous Waste Numbers | Listing Effective Date |
|-------------------------------|------------------------|
| K169, K170, K171, and K172    | February 8, 1999       |
| K174 and K175                 | May 7, 2001            |
| K176, K177, and K178          | May 20, 2002           |
| K181                          | August 23, 2005        |
- ii) The solid wastes described in subsection (b)(15)(A)(i) ~~of this Section~~ were disposed of prior to the effective date of the listing (as set forth in that subsection);
- iii) The leachate or gas condensate does not exhibit any characteristic of hazardous waste nor is derived from any other listed hazardous waste; and
- iv) Discharge of the leachate or gas condensate, including leachate or gas condensate transferred from the landfill to a POTW by truck, rail, or dedicated pipe, is subject to regulation under section 307(b) or 402 of the federal Clean Water Act (33 USC 1317(b) or 1342).
- B) Leachate or gas condensate derived from K169, K170, K171, K172, K176, K177, K178, or K181 waste will no longer be exempt if it is stored or managed in a surface impoundment prior to discharge. There is one exception: if the surface impoundment is used to temporarily store leachate or gas condensate in response to an emergency situation (e.g., shutdown of wastewater treatment system), provided the impoundment has a double liner, and provided the leachate or gas condensate is removed from the

impoundment and continues to be managed in compliance with the conditions of this subsection (b)(15) after the emergency ends.

- 16) This subsection (b)(16) corresponds with 40 CFR 261.4(b)(16), which USEPA has marked “reserved.” This statement maintains structural parity with USEPA regulations.
- 17) This subsection (b)(17) corresponds with 40 CFR 261.4(b)(17), which pertains exclusively to waste generated by a specific facility outside Illinois. This statement maintains structural parity with USEPA regulations.
- 18) Solvent-contaminated wipes, except for wipes that are hazardous waste due to the presence of trichloroethylene, that are sent for disposal are not hazardous wastes from the point of generation provided that all of the following conditions are fulfilled:
  - A) The solvent-contaminated wipes, when accumulated, stored, and transported, are contained in non-leaking, closed containers that are labeled “Excluded Solvent-Contaminated Wipes.” The containers must be able to contain free liquids, should free liquids occur. During accumulation, a container is considered closed when there is complete contact between the fitted lid and the rim, except when it is necessary to add or remove solvent-contaminated wipes. When the container is full, when the solvent-contaminated wipes are no longer being accumulated, or when the container is being transported, the container must be sealed with all lids properly and securely affixed to the container and all openings tightly bound or closed sufficiently to prevent leaks and emissions;
  - B) The solvent-contaminated wipes may be accumulated by the generator for up to 180 days from the start date of accumulation for each container prior to being sent for disposal;
  - C) At the point of being transported for disposal, the solvent-contaminated wipes must contain no free liquids, as defined in 35 Ill. Adm. Code 720.110;
  - D) Free liquids removed from the solvent-contaminated wipes or from the container holding the wipes must be managed according to the applicable regulations found in this Part and 35 Ill. Adm. Code 720, 722 through 728, and 733;
  - E) Generators must maintain at their site the following documentation:
    - i) The name and address of the landfill or combustor that is receiving the solvent-contaminated wipes;



- ii) The documentation that the 180 day accumulation time limit in 35 Ill. Adm. Code 721.104(b)(18)(B) is being met; and
  - iii) A description of the process the generator is using to ensure that the solvent-contaminated wipes contain no free liquids at the point of being transported for disposal; and
- F) The solvent-contaminated wipes are sent for disposal at one of the following facilities:
- i) A municipal solid waste landfill regulated under RCRA Subtitle D regulations: 35 Ill. Adm. Code 810 through 815, including the landfill design criteria of 35 Ill. Adm. Code 811.303 through 811.309, 811.315 through 811.317, and Subpart E of 35 Ill. Adm. Code 811 or 35 Ill. Adm. Code 814.302 and 814.402; 40 CFR 258, including the landfill design criteria of 40 CFR 258.40; or equivalent regulations of a sister state that USEPA has approved pursuant to 42 USC 6943 and 6947; or
  - ii) A hazardous waste landfill regulated under RCRA Subtitle C regulations: 35 Ill. Adm. Code 724 or 725; 40 CFR 264 or 265; or equivalent regulations of a sister state that USEPA has approved pursuant to 42 USC 6926; or
  - iii) A municipal waste combustor or other combustion facility regulated under section 129 of the Clean Air Act (42 USC 7429) or equivalent Illinois or sister-state regulations approved by USEPA pursuant to 42 USC 7429; or
  - iv) A hazardous waste combustor, boiler, or industrial furnace regulated under RCRA Subtitle C regulations: 35 Ill. Adm. Code 724 or 725 or Subpart H of 35 Ill. Adm. Code 726; 40 CFR 264 or 265 or subpart H of 40 CFR 266; or equivalent regulations of a sister state that USEPA has approved pursuant to 42 USC 6926.
- 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, and 722 through 728 or to the notification requirements of section 3010 of RCRA (42 USC 6930) 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, and 722 through 728. The sample qualifies when it fulfills one of the following conditions:
  - 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 must do the following:
  - A) Comply with USDOT, U.S. Postal Service (USPS), or any other applicable shipping requirements; or
  - B) Comply with the following requirements if the sample collector determines that USDOT, 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; and

- 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 the following conditions are fulfilled:
    - A) The generator or sample collector uses (in “treatability studies”) no more than 10,000 kg of media contaminated with non-acute hazardous waste, 1,000 kg of non-acute hazardous waste other than contaminated media, 1 kg of acute hazardous waste, or 2,500 kg of media contaminated with acute hazardous waste for each process being evaluated for each generated waste stream;
    - 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 2,500 kg of media contaminated with acute hazardous waste, 1,000 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 subsection (e)(2)(C)(i) or (e)(2)(C)(ii) ~~of this Section~~ are met.

- i) The transportation of each sample shipment complies with USDOT, USPS, or any other applicable shipping requirements; or
    - ii) If the USDOT, 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; and
    - iii) Documentation showing the following: 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 5,000 kg of media contaminated with non-acute hazardous waste, 500 kg of non-acute hazardous waste, 2,500 kg of media contaminated with acute hazardous waste, and 1 kg of acute hazardous waste under the circumstances set forth in either subsection (e)(3)(A) or (e)(3)(B) ~~of this Section~~, subject to the limitations of subsection (e)(3)(C) ~~of this Section~~:

- 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 the following occurs: 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 must 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 waste stream 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 must 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 (e) 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, 722 through 726, and 728 or to the notification requirements of Section 3010 of the Resource Conservation and Recovery Act (42 USC 6930), 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, 2,500 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, 2,500 kg of media contaminated with acute hazardous waste, 1,000 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 non-hazardous 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 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.
- g) Dredged material that is not a hazardous waste. Dredged material that is subject to the requirements of a permit that has been issued under section 404 of the Federal Water Pollution Control Act (33 USC 1344) is not a hazardous waste. For the purposes of this subsection (g), the following definitions apply:
- “Dredged material” has the meaning ascribed it in 40 CFR 232.2 (Definitions), incorporated by reference in 35 Ill. Adm. Code 720.111(b).
- “Permit” means any of the following:
- A permit issued by the U.S. Army Corps of Engineers (Army Corps) under section 404 of the Federal Water Pollution Control Act (33 USC 1344);
  - A permit issued by the Army Corps under section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 (33 USC 1413);
  - or
  - In the case of Army Corps civil works projects, the administrative equivalent of the permits referred to in the preceding two paragraphs of this definition, as provided for in Army Corps regulations (for example, see 33 CFR 336.1, 336.2, and 337.6).
- h) Carbon dioxide stream injected for geologic sequestration. Carbon dioxide streams that are captured and transported for purposes of injection into an underground injection well subject to the requirements for Class VI carbon



sequestration injection wells, including the requirements in 35 Ill. Adm. Code 704 and 730, are not a hazardous waste, provided the following conditions are met:

- 1) Transportation of the carbon dioxide stream must be in compliance with U.S. Department of Transportation requirements, including the pipeline safety laws (chapter 601 of subtitle VIII of 49 USC, incorporated by reference in 35 Ill. Adm. Code 720.111) and regulations (49 CFR 190 through 199, incorporated by reference in 35 Ill. Adm. Code 720.111) of the U.S. Department of Transportation, and pipeline safety regulations adopted and administered by a state authority pursuant to a certification under 49 USC 60105, incorporated by reference in 35 Ill. Adm. Code 720.111, and 49 CFR 171 through 180, incorporated by reference in 35 Ill. Adm. Code 720.111, as applicable.

BOARD NOTE: The parenthetical language relating to pipeline transportation does not preclude transportation by air, water, highway, or rail that complies with U.S. Department of Transportation regulations at 49 CFR 171 through 180. For this reason, the Board has added citations of those regulations.

- 2) Injection of the carbon dioxide stream must be in compliance with the applicable requirements for Class VI carbon sequestration injection wells, including the applicable requirements in 35 Ill. Adm. Code 704 and 730;
- 3) No hazardous wastes ~~shall~~ may be mixed with, or otherwise co-injected with, the carbon dioxide stream; and
- 4) Required Certifications.
  - A) Any generator of a carbon dioxide stream, who claims that a carbon dioxide stream is excluded under this subsection (h), must have an authorized representative (as defined in 35 Ill. Adm. Code 720.110) sign a certification statement worded as follows:

“I certify under penalty of law that the carbon dioxide stream that I am claiming to be excluded under 35 Ill. Adm. Code 721.104(h) has not been mixed with hazardous wastes, and I have transported the carbon dioxide stream in compliance with (or have contracted with a pipeline operator or transporter to transport the carbon dioxide stream in compliance with) U.S. Department of Transportation requirements, including the pipeline safety laws (49 USC 60101 et seq.) and regulations (49 CFR Parts 190 through 199) of the U.S. Department of Transportation, and the pipeline safety regulations adopted and administered by a state authority pursuant to a certification under 49 USC 60105, as applicable, for injection into a

well subject to the requirements for the Class VI Underground Injection Control Program of the federal Safe Drinking Water Act (42 USC 300f et seq.).”

- B) Any Class VI carbon sequestration injection well owner or operator, who claims that a carbon dioxide stream is excluded under this subsection (h), must have an authorized representative (as defined in 35 Ill. Adm. Code 720.110) sign a certification statement worded as follows:

“I certify under penalty of law that the carbon dioxide stream that I am claiming to be excluded under 35 Ill. Adm. Code 721.104(h) has not been mixed with, or otherwise co-injected with, hazardous waste at the UIC Class VI permitted facility, and that injection of the carbon dioxide stream is in compliance with the applicable requirements for UIC Class VI wells, including the applicable requirements in 35 Ill. Adm. Code 704 and 730.”

- C) The signed certification statement must be kept on-site for no less than three years, and must be made available within 72 hours after a written request from the Agency or USEPA, or their designee. The signed certification statement must be renewed every year that the exclusion is claimed, by having an authorized representative (as defined in 35 Ill. Adm. Code 720.110) annually prepare and sign a new copy of the certification statement within one year after the date of the previous statement. The signed certification statement must also be readily accessible on the facility’s publicly-available website (if such website exists) as a public notification with the title of “Carbon Dioxide Stream Certification” at the time the exclusion is claimed.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.107 Residues of Hazardous Waste in Empty Containers**

- a) Applicability of rules.
- 1) Any hazardous waste remaining in either an empty container or an inner liner removed from an empty container, as defined in subsection (b) ~~of this Section~~, is not subject to regulation under 35 Ill. Adm. Code 702, 703, or 721 through 728, or to the notification requirements of Section 3010 of the Resource Conservation and Recovery Act.
  - 2) Any hazardous waste in either a container that is not empty or an inner liner that is removed from a container that is not empty, as defined in subsection (b) ~~of this Section~~, is subject to regulations under 35 Ill. Adm.

Code 702, 703, and 721 through 728 and to the notification requirements of Section 3010 of the Resource Conservation and Recovery Act.

- b) Definition of “empty”:
- 1) A container or an inner liner removed from a container that has held any hazardous waste, except a waste that is a compressed gas or that is identified as an acute hazardous waste listed in Section 721.131 or 721.133(e), is empty if the conditions of subsections (b)(1)(A) and (b)(1)(B) of this Section exist, subject to the limitations of subsection (b)(1)(C) of this Section:
    - A) All wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of container, e.g., pouring, pumping, and aspirating, and
    - B) No more than 2.5 centimeters (one inch) of residue remain on the bottom of the container or inner liner, or
    - C) Weight limits.
      - i) No more than three percent by weight of the total capacity of the container remains in the container or inner liner if the container is less than or equal to ~~110~~119 gallons (~~416~~450 liters) in size; or
      - ii) No more than 0.3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is greater than ~~110~~119 gallons (~~416~~450 liters) in size.
  - 2) A container that has held a hazardous waste that is a compressed gas is empty when the pressure in the container approaches ambient atmospheric pressure.
  - 3) A container or an inner liner removed from a container that has held an acute hazardous waste listed in Section 721.131 or 721.133(e) is empty if any of the following occurs:
    - A) The container or inner liner has been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate;
    - B) The container or inner liner has been cleaned by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal; or

- C) In the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container has been removed.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART D: LISTS OF HAZARDOUS WASTE

##### Section 721.132 Hazardous Waste from Specific Sources

- a) 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 Appendix I of this Part.

USEPA Hazardous Waste No.	Industry and Hazardous Waste	Hazard Code
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##### Wood Preservation Process Wastes:

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 Production Wastes:

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

## Organic Chemicals Production Wastes:

K009	Distillation bottoms from the production of acetaldehyde from ethylene.	(T)
K010	Distillation side cuts from the production of acetaldehyde from ethylene.	(T)
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile.	(R, T)
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile.	(R, 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 separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(T)
K111	Product <del>wastewaters</del> <u>washwaters</u> 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	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-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)
K174	Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer (including sludges that result from commingled ethylene dichloride or vinyl chloride monomer wastewater and other wastewater), unless the sludges meet the following conditions: (1) the sludges are disposed of in a RCRA Subtitle C (42 USC 6921-6939e) or non-hazardous landfill licensed or permitted by a state or the federal government; (2) the sludges are not otherwise placed on the land prior to final disposal; and (3) the generator maintains documentation demonstrating that the waste was either disposed of in an on-site landfill or consigned to a transporter or disposal facility that provided a written commitment to dispose of the waste in an off-site landfill. Upon a showing by the government that a respondent in any enforcement action brought to enforce the requirements of Subtitle C of this Part managed wastewater treatment sludges from the production of vinyl chloride monomer or ethylene dichloride, the respondent must demonstrate that it meets the conditions of the exclusion that are set forth above. In doing so, the	(T)



respondent must provide appropriate documentation that the terms of the exclusion were met (e.g., contracts between the generator and the landfill owner or operator, invoices documenting delivery of waste to landfill, etc.).

K175 Wastewater treatment sludges from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process. (T)

Inorganic Chemicals Production Wastes:

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)

K176 Baghouse filters from the production of antimony oxide, including filters from the production of intermediates (e.g., antimony metal or crude antimony oxide). (E)

K177 Slag from the production of antimony oxide that is speculatively accumulated or disposed of, including slag from the production of intermediates (e.g., antimony metal or crude antimony oxide). (T)

K178 Residues from manufacturing and manufacturing-site storage of ferric chloride from acids formed during the production of titanium dioxide using the chloride-ilmenite process. (T)

K181 Nonwastewaters from the production of dyes or pigments (including nonwastewaters commingled at the point of generation with nonwastewaters from other processes) that, at the point of generation, contain mass loadings of any of the constituents identified in subsection (c) of this Section that are equal to or greater than the corresponding subsection (c) levels, as determined on a calendar year basis. These wastes will not be hazardous if the nonwastewaters are managed in one of the following ways:

- 1) They are disposed of in a municipal solid waste

landfill unit that is subject to the design criteria in 35 Ill. Adm. Code 811.303 through 811.309 and 811.315 through 811.317 and Subpart E of 35 Ill. Adm. Code 811 or 35 Ill. Adm. Code 814.302 and 814.402;

- 2) They are disposed of in a hazardous waste landfill unit that is subject to either 35 Ill. Adm. Code 724.401 or 725.401;
- 3) They are disposed of in other municipal solid waste landfill units that meet the design criteria in 35 Ill. Adm. Code 811.303 through 811.309 and 811.315 through 811.317 and Subpart E of 35 Ill. Adm. Code 811 or 35 Ill. Adm. Code 814.302 and 814.402, 35 Ill. Adm. Code 724.401, or 35 Ill. Adm. Code 725.401; or
- 4) They are treated in a combustion unit that is permitted under 415 ILCS 5/39(d), or an onsite combustion unit that is permitted under 415 ILCS 5/39.5.

For the purposes of this listing, dyes or pigments production is defined in subsection (b)(1) ~~of this Section~~. Subsection (d) ~~of this Section~~ describes the process for demonstrating that a facility's nonwastewaters are not K181 waste. This listing does not apply to wastes that are otherwise identified as hazardous under Sections 721.121 through 721.124 and 721.131 through 721.133 at the point of generation. Also, the listing does not apply to wastes generated before any annual mass loading limit is met, as set forth in subsection (c) ~~of this Section~~.

#### Pesticides Production Wastes:

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 solids from the production of ethylenebisdithiocarbamic acid and its salts.	(T)
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 Production Wastes:

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 Wastes:

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)

K169 Crude oil storage tank sediment from petroleum refining operations. (T)

K170 Clarified slurry oil tank sediment or in-line filter/separation solids from petroleum refining operations. (T)

K171 Spent hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media). (I, T)

K172 Spent hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media). (I, T)

Iron and Steel Production Wastes:

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 Aluminum Production Wastes:

K088 Spent potliners from primary aluminum reduction. (T)

Secondary Lead Production Wastes:

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 Production Wastes:

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 organo-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 Wastes:

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)

## Coke Production Wastes:

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  $\alpha$ - (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 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  $\alpha$ - (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. (T)
- 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. (T)

- b) Listing-specific definition: For the purposes of the K181 hazardous waste listing in subsection (a) ~~of this Section~~, “dyes or pigments production” includes manufacture of the following product classes: dyes, pigments, and FDA-certified colors that are in the azo, triarylmethane, perylene, and anthraquinone classes. Azo products include azo, monoazo, diazo, triazo, polyazo, azoic, benzidine, and pyrazolone products. Triarylmethane products include both triarylmethane and triphenylmethane products. Wastes that are not generated at a dyes or pigments manufacturing site, such as wastes from the offsite use, formulation, and packaging of dyes or pigments, are not included in the K181 listing.
- c) K181 listing levels. Nonwastewaters containing constituents in amounts equal to or exceeding the following levels during any calendar year are subject to the K181 hazardous waste listing in subsection (a) ~~of this Section~~, unless the conditions in the K181 hazardous waste listing are met:

Constituent	Chemical Abstracts No.	Mass Levels (kg/yr)
Aniline	62-53-3	9,300
o-Anisidine	90-04-0	110
4-Chloroaniline	106-47-8	4,800
p-Cresidine	120-71-8	660
2,4-Dimethylaniline	95-68-1	100
1,2-Phenylenediamine	95-54-5	710

1,3-Phenylenediamine	108-45-2	1,200
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- d) Procedures for demonstrating that dyes or pigments nonwastewaters are not K181 waste. The procedures described in subsections (d)(1) through (d)(3) and (d)(5) ~~of this Section~~ establish when nonwastewaters from the production of dyes or pigments would not be hazardous. (These procedures apply to wastes that are not disposed of in landfill units or treated in combustion units, as specified in subsection (a) ~~of this Section~~). If the nonwastewaters are disposed of in landfill units or treated in combustion units as described in subsection (a) ~~of this Section~~, then the nonwastewaters are not hazardous. In order to demonstrate that it is meeting the landfill disposal or combustion conditions contained in the K181 waste listing description, the generator must maintain documentation as described in subsection (d)(4) ~~of this Section~~.
- 1) Determination based on no K181 waste constituents. A generator that has knowledge (e.g., knowledge of constituents in wastes based on prior sampling and analysis data or information about raw materials used, production processes used, and reaction and degradation products formed) that its waste contains none of the K181 waste constituents (see subsection (c) ~~of this Section~~) can use its knowledge to determine that its waste is not K181 waste. The generator must document the basis for all such determinations on an annual basis and keep each annual documentation for three years.
  - 2) Determination for generated quantities of 1,000 tonnes (1,000 metric tons) per year or less for wastes that contain K181 waste constituents. If the total annual quantity of dyes or pigments nonwastewaters generated is 1,000 tonnes or less, the generator can use knowledge of the wastes (e.g., knowledge of constituents in wastes based on prior analytical data or information about raw materials used, production processes used, and reaction and degradation products formed) to conclude that annual mass loadings for the K181 constituents are below the listing levels of subsection (c) ~~of this Section~~. To make this determination, the generator must fulfill the following conditions:
    - A) Each year, the generator must document the basis for determining that the annual quantity of nonwastewaters expected to be generated will be less than 1,000 tonnes;
    - B) The generator must track the actual quantity of nonwastewaters generated from January 1 through December 31 of each calendar year. If, at any time within the year, the actual waste quantity exceeds 1,000 tonnes, the generator must comply with the requirements of subsection (d)(3) ~~of this Section~~ for the remainder of that calendar year;



- C) The generator must keep a running total of the K181 waste constituent mass loadings over the course of the calendar year; and
  - D) The generator must keep the following records on site for the three most recent calendar years in which the hazardous waste determinations were made:
    - i) The quantity of dyes or pigments nonwastewaters generated;
    - ii) The relevant process information used; and
    - iii) The calculations performed to determine annual total mass loadings for each K181 waste constituent in the nonwastewaters during the year.
- 3) Determination for generated quantities greater than 1,000 tonnes per year for wastes that contain K181 constituents. If the total annual quantity of dyes or pigments nonwastewaters generated is greater than 1,000 tonnes, the generator must perform each of the following steps in order to make a determination that its waste is not K181 waste:
- A) The generator must determine which K181 waste constituents (see subsection (c) ~~of this Section~~) are reasonably expected to be present in the wastes based on knowledge of the wastes (e.g., based on prior sampling and analysis data or information about raw materials used, production processes used, and reaction and degradation products formed);
  - B) If 1,2-phenylenediamine is present in the wastes, the generator can use either knowledge of the wastes or sampling and analysis procedures to determine the level of this constituent in the wastes. For determinations based on use of knowledge of the wastes, the generator must comply with the procedures for using knowledge of the wastes described in subsection (d)(2) ~~of this Section~~ and keep the records described in subsection (d)(2)(D) ~~of this Section~~. For determinations based on sampling and analysis, the generator must comply with the sampling and analysis and recordkeeping requirements described in subsection (d)(3)(C) ~~of this Section~~;
  - C) The generator must develop a waste sampling and analysis plan (or modify an existing plan) to collect and analyze representative waste samples for the K181 waste constituents reasonably expected to be present in the wastes. At a minimum, the plan must include the following elements:
    - i) A discussion of the number of samples needed to characterize the wastes fully;

- ii) The planned sample collection method to obtain representative waste samples;
  - iii) A discussion of how the sampling plan accounts for potential temporal and spatial variability of the wastes; and
  - iv) A detailed description of the test methods to be used, including sample preparation, clean up (if necessary), and determinative methods;
- D) The generator must collect and analyze samples in accordance with the waste sampling and analysis plan, and the plan must fulfill the following requirements:
- i) The sampling and analysis must be unbiased, precise, and representative of the wastes; and
  - ii) The analytical measurements must be sufficiently sensitive, accurate, and precise to support any claim that the constituent mass loadings are below the listing levels of subsection (c) ~~of this Section~~;
- E) The generator must record the analytical results;
- F) The generator must record the waste quantity represented by the sampling and analysis results;
- G) The generator must calculate constituent-specific mass loadings (product of concentrations and waste quantity);
- H) The generator must keep a running total of the K181 waste constituent mass loadings over the course of the calendar year;
- I) The generator must determine whether the mass of any of the K181 waste constituents listed in subsection (c) ~~of this Section~~ generated between January 1 and December 31 of any calendar year is below the K181 waste listing levels;
- J) The generator must keep the following records on site for the three most recent calendar years in which the hazardous waste determinations are made:
- i) The sampling and analysis plan;
  - ii) The sampling and analysis results (including quality assurance or quality control data);

- iii) The quantity of dyes or pigments nonwastewaters generated; and
  - iv) The calculations performed to determine annual mass loadings; and
- K) The generator must conduct non-hazardous waste determinations annually to verify that the wastes remain non-hazardous.
- i) The annual testing requirements are suspended after three consecutive successful annual demonstrations that the wastes are non-hazardous. The generator can then use knowledge of the wastes to support subsequent annual determinations.
  - ii) The annual testing requirements are reinstated if the manufacturing or waste treatment processes generating the wastes are significantly altered, resulting in an increase of the potential for the wastes to exceed the listing levels.
  - iii) If the annual testing requirements are suspended, the generator must keep records of the process knowledge information used to support a non-hazardous determination. If testing is reinstated, the generator must retain a description of the process change.
- 4) Recordkeeping for the landfill disposal and combustion exemptions. For the purposes of meeting the landfill disposal and combustion condition set out in the K181 waste listing description in subsection (a) ~~of this Section~~, the generator must maintain on site for three years documentation demonstrating that each shipment of waste was received by a landfill unit that is subject to or which meets the landfill design standards set out in the listing description or that the waste was treated in combustion units, as specified in the listing description in subsection (a) ~~of this Section~~.
- 5) Waste holding and handling. During the interim period, from the point of generation to completion of the hazardous waste determination, the generator must store the wastes appropriately. If the wastes are determined to be hazardous and the generator has not complied with the hazardous waste storage requirements of 35 Ill. Adm. Code 722.134 during the interim period, the generator could be subject to an enforcement action for improper hazardous waste management.

(Source: Amended at 40 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 that, 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; legitimately recycled or reclaimed; or 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 that, 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 that 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 of this Part.

- 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 the following:

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 is only listed for acute toxicity. Wastes are first listed in alphabetical order by substance and then listed again in numerical order by USEPA hazardous waste number.

#### Alphabetical Listing

USEPA Hazardous Waste No.	Chemical Abstracts No. (CAS No.)	Substance	Hazard Code
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 <sub>3</sub> AsO <sub>4</sub>	
P012	1327-53-3	Arsenic oxide As <sub>2</sub> O <sub>3</sub>	

P011	1303-28-2	Arsenic oxide $\text{As}_2\text{O}_5$
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, $\alpha,\alpha$ -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 (3a <i>S</i> -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 percent
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 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 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 $\alpha$ ,4a $\beta$ ,5 $\alpha$ ,8 $\alpha$ ,8a $\beta$ )-
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 $\alpha$ ,4a $\beta$ ,5 $\beta$ ,8 $\beta$ ,8a $\beta$ )-
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-, (1 $\alpha$ ,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-, (1 $\alpha$ ,2 $\beta$ ,2a $\beta$ ,3 $\alpha$ ,6 $\alpha$ ,6a $\beta$ ,7 $\beta$ ,7a $\alpha$ )-, and metabolites
P044	60-51-5	Dimethoate
P046	122-09-8	$\alpha,\alpha$ -Dimethylphenethylamine
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	Ethanimidothioic acid, 2-(dimethylamino)-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	<del>Ethylenimine</del> <u>Ethyleneimine</u>	
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-methylcarbamate	
P007	2763-96-4	3(2H)-Isoxazolone, 5-(aminomethyl)-	
P196	15339-36-3	Manganese, bis(dimethylcarbamo-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-benzodioxathiepen, 6,7,8,9,10,10-hexachloro-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-Methylactonitrile	
P071	298-00-0	Methyl parathion	
P190	1129-41-5	Metolcarb	
P128	315-18-4	Mexacarbate	
P072	86-88-4	$\alpha$ -Naphthylthiourea	
P073	13463-39-3	Nickel carbonyl	
P073	13463-39-3	Nickel carbonyl Ni(CO) <sub>4</sub> , (T-4)-	
P074	557-19-7	Nickel cyanide	
P074	557-19-7	Nickel cyanide Ni(CN) <sub>2</sub>	
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 NO <sub>2</sub>	
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 OsO <sub>4</sub> , (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-methyl-ethyl)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-((dimethylamino)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-, methyl- carbamate (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-dimethoxy-	
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	Tetraphosphoric acid, hexaethyl ester	
P113	1314-32-5	Thallic oxide	
P113	1314-32-5	Thallium oxide Tl <sub>2</sub> O <sub>3</sub>	
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 <sub>2</sub> N)C(S)) <sub>2</sub> NH	
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 <sub>2</sub> O <sub>5</sub>	
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 percent	
P121	557-21-1	Zinc cyanide	
P121	557-21-1	Zinc cyanide Zn(CN) <sub>2</sub>	
P205	137-30-4	Zinc, bis(dimethylcarbamo-dithioato-S,S')	
P122	1314-84-7	Zinc phosphide Zn <sub>3</sub> P <sub>2</sub> , when present at concentrations greater than 10 percent	(R, T)
P205	137-30-4	Ziram	

## Numerical Listing

USEPA Hazardous Waste No.	Chemical Abstracts No. (CAS No.)	Substance	Hazard Code
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 percent	
P001	81-81-2*	Warfarin, and salts, when present at concentrations greater than 0.3 percent	
P002	591-08-2	Acetamide, N-(aminothioxomethyl)	
P002	591-08-2	1-Acetyl-2-thiourea	
P003	107-02-8	Acrolein	
P003	107-02-8	2-Propenal	
P004	309-00-2	Aldrin	
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 $\beta$ )-	
P005	107-18-6	Allyl alcohol	
P005	107-18-6	2-Propen-1-ol	
P006	20859-73-8	Aluminum phosphide(R, T)	(R, T)
P007	2763-96-4	5-(Aminomethyl)-3-isoxazolol	
P007	2763-96-4	3(2H)-Isoxazolone, 5-(aminomethyl)-	
P008	504-24-5	4-Aminopyridine	
P008	504-24-5	4-Pyridinamine	
P009	131-74-8	Ammonium picrate	(R)

P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P010	7778-39-4	Arsenic acid $H_3AsO_4$
P011	1303-28-2	Arsenic oxide $As_2O_5$
P011	1303-28-2	Arsenic pentoxide
P012	1327-53-3	Arsenic oxide $As_2O_3$
P012	1327-53-3	Arsenic trioxide
P013	542-62-1	Barium cyanide
P014	108-98-5	Benzenethiol
P014	108-98-5	Thiophenol
P015	7440-41-7	Beryllium powder
P016	542-88-1	Dichloromethyl ether
P016	542-88-1	Methane, oxybis(chloro-
P017	598-31-2	Bromoacetone
P017	598-31-2	2-Propanone, 1-bromo-
P018	357-57-3	Brucine
P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-
P020	88-85-7	Dinoseb
P020	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-di- nitro-
P021	592-01-8	Calcium cyanide
P021	592-01-8	Calcium cyanide $Ca(CN)_2$
P022	75-15-0	Carbon disulfide
P023	107-20-0	Acetaldehyde, chloro-
P023	107-20-0	Chloroacetaldehyde
P024	106-47-8	Benzenamine, 4-chloro-
P024	106-47-8	p-Chloroaniline
P026	5344-82-1	1-(o-Chlorophenyl)thiourea
P026	5344-82-1	Thiourea, (2-chlorophenyl)-
P027	542-76-7	3-Chloropropionitrile
P027	542-76-7	Propanenitrile, 3-chloro-
P028	100-44-7	Benzene, (chloromethyl)-
P028	100-44-7	Benzyl chloride
P029	544-92-3	Copper cyanide
P029	544-92-3	Copper cyanide $CuCN$
P030		Cyanides (soluble cyanide salts), not otherwise specified
P031	460-19-5	Cyanogen
P031	460-19-5	Ethanedinitrile
P033	506-77-4	Cyanogen chloride
P033	506-77-4	Cyanogen chloride $CNCl$
P034	131-89-5	2-Cyclohexyl-4,6-dinitrophenol
P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-
P036	696-28-6	Arsonous dichloride, phenyl-
P036	696-28-6	Dichlorophenylarsine
P037	60-57-1	Dieldrin

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-, (1 $\alpha$ ,2 $\beta$ ,2 $\alpha$ ,3 $\beta$ ,6 $\beta$ ,6 $\alpha$ ,7 $\beta$ ,7 $\alpha$ )-
P038	692-42-2	Arsine, diethyl-
P038	692-42-2	Diethylarsine
P039	298-04-4	Disulfoton
P039	298-04-4	Phosphorodithioic acid, O,O-diethyl S- (2-(ethylthio)ethyl) ester
P040	297-97-2	O,O-Diethyl O-pyrazinyl phosphorothioate
P040	297-97-2	Phosphorothioic acid, O,O-diethyl O- pyrazinyl ester
P041	311-45-5	Diethyl-p-nitrophenyl phosphate
P041	311-45-5	Phosphoric acid, diethyl 4-nitrophenyl ester
P042	51-43-4	1,2-Benzenediol, 4-(1-hydroxy-2- (methylamino)ethyl)-, (R)-
P042	51-43-4	Epinephrine
P043	55-91-4	Diisopropylfluorophosphate (DFP)
P043	55-91-4	Phosphorofluoridic acid, bis(1-methyl- ethyl)ester
P044	60-51-5	Dimethoate
P044	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-(2-(methylamino)-2-oxoethyl)ester
P045	39196-18-6	2-Butanone, 3,3-dimethyl-1-(methyl- thio)-, O-((methylamino)carbonyl) oxime
P045	39196-18-4	Thiofanox
P046	122-09-8	Benzeneethanamine, $\alpha,\alpha$ -dimethyl-
P046	122-09-8	$\alpha,\alpha$ -Dimethylphenethylamine
P047	534-52-1*	4,6-Dinitro-o-cresol and salts
P047	534-52-1*	Phenol, 2-methyl-4,6-dinitro-, and salts
P048	51-28-5	2,4-Dinitrophenol
P048	51-28-5	Phenol, 2,4-dinitro-
P049	541-53-7	Dithiobiuret
P049	541-53-7	Thioimidodicarbonic diamide ((H <sub>2</sub> N)C(S)) <sub>2</sub> NH
P050	115-29-7	Endosulfan
P050	115-29-7	6,9-Methano-2,4,3-benzodioxathiepen, 6,7,8,9,10,10-hexachloro- 1,5,5a,6,9,9a-hexahydro-, 3-oxide

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-, (1 $\alpha$ ,2 $\beta$ ,2a $\beta$ ,3 $\alpha$ ,6 $\alpha$ ,6a $\beta$ ,7 $\beta$ ,7a $\alpha$ )-, and metabolites	
P051	72-20-8	Endrin	
P051	72-20-8	Endrin, and metabolites	
P054	151-56-4	Aziridine	
P054	151-56-4	<del>Ethylenimine</del> <u>Ethyleneimine</u>	
P056	7782-41-4	Fluorine	
P057	640-19-7	Acetamide, 2-fluoro-	
P057	640-19-7	Fluoroacetamide	
P058	62-74-8	Acetic acid, fluoro-, sodium salt	
P058	62-74-8	Fluoroacetic acid, sodium salt	
P059	76-44-8	Heptachlor	
P059	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-	
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 $\alpha$ ,4a $\beta$ ,5 $\beta$ ,8 $\beta$ ,8a $\beta$ )-	
P060	465-73-6	Isodrin	
P062	757-58-4	Hexaethyl tetraphosphate	
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester	
P063	74-90-8	Hydrocyanic acid	
P063	74-90-8	Hydrogen cyanide	
P064	624-83-9	Methane, isocyanato-	
P064	624-83-9	Methyl isocyanate	
P065	628-86-4	Fulminic acid, mercury (2+) salt	(R, T)
P065	628-86-4	Mercury fulminate	(R, T)
P066	16752-77-5	Ethanimidothioic acid, N-(((methylamino)carbonyl)oxy)-, methyl ester	
P066	16752-77-5	Methomyl	
P067	75-55-8	Aziridine, 2-methyl	
P067	75-55-8	1,2-Propylenimine	
P068	60-34-4	Hydrazine, methyl-	
P068	60-34-4	Methyl hydrazine	
P069	75-86-5	2-Methylactonitrile	
P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-	
P070	116-06-3	Aldicarb	
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-, O-((methylamino)carbonyl)oxime	
P071	298-00-0	Methyl parathion	
P071	298-00-0	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester	
P072	86-88-4	$\alpha$ -Naphthylthiourea	

P072	86-88-4	Thiourea, 1-naphthalenyl-	
P073	13463-39-3	Nickel carbonyl	
P073	13463-39-3	Nickel carbonyl Ni(CO) <sub>4</sub> , (T-4)-	
P074	557-19-7	Nickel cyanide	
P074	557-19-7	Nickel cyanide Ni(CN) <sub>2</sub>	
P075	54-11-5*	Nicotine, and salts	
P075	54-11-5*	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)- and salts	
P076	10102-43-9	Nitric oxide	
P076	10102-43-9	Nitrogen oxide NO	
P077	100-01-6	Benzenamine, 4-nitro-	
P077	100-01-6	p-Nitroaniline	
P078	10102-44-0	Nitrogen dioxide	
P078	10102-44-0	Nitrogen oxide NO <sub>2</sub>	
P081	55-63-0	Nitroglycerine	(R)
P081	55-63-0	1,2,3-Propanetriol, trinitrate-	(R)
P082	62-75-9	Methanamine, N-methyl-N-nitroso-	
P082	62-75-9	N-Nitrosodimethylamine	
P084	4549-40-0	N-Nitrosomethylvinylamine	
P084	4549-40-0	Vinylamine, N-methyl-N-nitroso-	
P085	152-16-9	Diphosphoramidate, octamethyl-	
P085	152-16-9	Octamethylpyrophosphoramidate	
P087	20816-12-0	Osmium oxide OsO <sub>4</sub> , (T-4)-	
P087	20816-12-0	Osmium tetroxide	
P088	145-73-3	Endothall	
P088	145-73-3	7-Oxabicyclo(2.2.1)heptane-2,3-dicarboxylic acid	
P089	56-38-2	Parathion	
P089	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester	
P092	62-38-4	Mercury, (acetato-O)phenyl-	
P092	62-38-4	Phenylmercury acetate	
P093	103-85-5	Phenylthiourea	
P093	103-85-5	Thiourea, phenyl-	
P094	298-02-2	Phorate	
P094	298-02-2	Phosphorodithioic acid, O,O-diethyl S-((ethylthio)methyl) ester	
P095	75-44-5	Carbonic dichloride	
P095	75-44-5	Phosgene	
P096	7803-51-2	Hydrogen phosphide	
P096	7803-51-2	Phosphine	
P097	52-85-7	Famphur	
P097	52-85-7	Phosphorothioic acid, O-(4-((dimethylamino)sulfonyl)phenyl) O,O-dimethyl ester	
P098	151-50-8	Potassium cyanide	



P098	151-50-8	Potassium cyanide KCN	
P099	506-61-6	Argentate(1-), bis(cyano-C)-, potassium	
P099	506-61-6	Potassium silver cyanide	
P101	107-12-0	Ethyl cyanide	
P101	107-12-0	Propanenitrile	
P102	107-19-7	Propargyl alcohol	
P102	107-19-7	2-Propyn-1-ol	
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	
P108	57-24-9*	Strychnine and salts	
P109	3689-24-5	Tetraethyldithiopyrophosphate	
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester	
P110	78-00-2	Plumbane, tetraethyl-	
P110	78-00-2	Tetraethyl lead	
P111	107-49-3	Diphosphoric acid, tetraethyl ester	
P111	107-49-3	Tetraethylpyrophosphate	
P112	509-14-8	Methane, tetranitro-	(R)
P112	509-14-8	Tetranitromethane	(R)
P113	1314-32-5	Thallic oxide	
P113	1314-32-5	Thallium oxide $Tl_2O_3$	
P114	12039-52-0	Selenious acid, dithallium (1+) salt	
P114	12039-52-0	Thallium (I) selenite	
P115	7446-18-6	Sulfuric acid, dithallium (1+) salt	
P115	7446-18-6	Thallium (I) sulfate	
P116	79-19-6	Hydrazinecarbothioamide	
P116	79-19-6	Thiosemicarbazide	
P118	75-70-7	Methanethiol, trichloro-	
P118	75-70-7	Trichloromethanethiol	
P119	7803-55-6	Ammonium vanadate	
P119	7803-55-6	Vanadic acid, ammonium salt	
P120	1314-62-1	Vanadium oxide $V_2O_5$	
P120	1314-62-1	Vanadium pentoxide	
P121	557-21-1	Zinc cyanide	
P121	557-21-1	Zinc cyanide $Zn(CN)_2$	
P122	1314-84-7	Zinc phosphide $Zn_3P_2$ , when present at concentrations greater than 10 percent	(R, T)
P123	8001-35-2	Toxaphene	
P127	1563-66-2	7-Benzofuranol, 2,3-dihydro-2,2- dimethyl-, methylcarbamate	
P127	1563-66-2	Carbofuran	

P128	315-18-4	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)
P128	315-18-4	Mexacarbate
P185	26419-73-8	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O-((methylamino)-carbonyl)oxime
P185	26419-73-8	Tirpate
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)
P188	57-64-7	Physostigmine salicylate
P189	55285-14-8	Carbamic acid, ((dibutylamino)-thio)-methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester
P189	55285-14-8	Carbosulfan
P190	1129-41-5	Carbamic acid, methyl-, 3-methyl-phenyl ester
P190	1129-41-5	Metolcarb
P191	644-64-4	Carbamic acid, dimethyl-, 1-((dimethyl-amino)carbonyl)-5-methyl-1H-pyrazol-3-yl ester
P191	644-64-4	Dimetilan
P192	119-38-0	Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H-pyrazol-5-yl ester
P192	119-38-0	Isolan
P194	23135-22-0	Ethanimidothioic acid, 2-(dimethylamino)-N-(((methylamino)carbonyl)-oxy)-2-oxo-, methyl ester
P194	23135-22-0	Oxamyl
P196	15339-36-3	Manganese, bis(dimethylcarbamo-dithioato-S,S')
P196	15339-36-3	Manganese dimethyldithiocarbamate
P197	17702-57-7	Formparanate
P197	17702-57-7	Methanimidamide, N,N-dimethyl-N'-(2-methyl-4-(((methylamino)-carbonyl)oxy)phenyl)-
P198	23422-53-9	Formetanate hydrochloride
P198	23422-53-9	Methanimidamide, N,N-dimethyl-N'-(3-(((methylamino)-carbonyl)oxy)-phenyl)-, monohydrochloride
P199	2032-65-7	Methiocarb
P199	2032-65-7	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate

P201	2631-37-0	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate
P201	2631-37-0	Promecarb
P202	64-00-6	m-Cumenyl methylcarbamate
P202	64-00-6	3-Isopropylphenyl-N-methylcarbamate
P202	64-00-6	Phenol, 3-(1-methylethyl)-, methyl carbamate
P203	1646-88-4	Aldicarb sulfone
P203	1646-88-4	Propanal, 2-methyl-2-(methylsulfonyl)-, O-((methylamino)carbonyl) oxime
P204	57-47-6	Physostigmine
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)-
P205	137-30-4	Zinc, bis(dimethylcarbamo-dithioato-S,S')
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 the following:

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. Wastes are first listed in alphabetical order by substance and then listed again in numerical order by USEPA hazardous waste number.

USEPA Hazardous Waste No.	Chemical Abstracts No. (CAS No.)	Substance	Hazard Code
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-dichlorophenoxy)-, 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-trichlorophenoxy)-	
U002	67-64-1	Acetone	(I)
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-(((amino-carbonyl)oxy)methyl)-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, (1a-S-(1 $\alpha$ ,8 $\beta$ ,8a $\alpha$ ,8b $\alpha$ ))-	
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'-carbonimidoylbis-(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- $\alpha$ -(4-chlorophenyl)- $\alpha$ -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, dibutyl ester	
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester	
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester	
U107	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl 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)
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-	(I, T)
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-trichloroethylidene)bis(4-chloro-	
U247	72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-methoxy-	

U023	98-07-7	Benzene, (trichloromethyl)-	(C, R, T)
U234	99-35-4	Benzene, 1,3,5-trinitro-	(R, T)
U021	92-87-5	Benzidene	
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-dimethyl-, 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(rst)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 percent or less	
U022	50-32-8	Benzo(a)pyrene	
U197	106-51-4	p-Benzoquinone	
U023	98-07-7	Benzotrichloride	(C, R, T)
U085	1464-53-5	2,2'-Bioxirane	(I, T)
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-hexachloro-	
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-methoxyethyl)-3-methyl-1-oxobutoxy)methyl)-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, (1S-(1 $\alpha$ (Z), 7(2S*,3R*), 7 $\alpha$ ))-	
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-methylethyl 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-ethanediylbis-, salts and esters	
U062	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester	
U389	2303-17-5	Carbamothioic acid, bis(1-methylethyl)-, 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	(R, T)
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	Cumene	(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 dithiophosphate	
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	$\alpha$ , $\alpha$ -Dimethylbenzylhydroperoxide	(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-thienylmethyl)-	
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)carbonyloxy))bis-, dimethyl ester	
U394	30558-43-1	Ethanimidothioic acid, 2-(dimethyl- amino)-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	(I)
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-decachloro- octahydro-	
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-chloroaniline)	
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- $\alpha$ -L-lyxo- hexapyranosyl)oxyl)-7,8,9,10-tetra- hydro-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-chloro- ethyl)-	
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'-di- yl)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	$\alpha$ -Naphthylamine	
U168	91-59-8	$\beta$ -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-	(I)
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-ethenedi- yl)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-tri- chloro-	
U411	114-26-1	Phenol, 2-(1-methylethoxy)-, methyl- carbamate	
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-chloroethyl)amino)-	
U145	7446-27-7	Phosphoric acid, lead (2+) salt (2:3)	
U087	3288-58-2	Phosphorodithioic acid, O,O-diethyl 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	Propham	
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	<del>58-04-2</del> <u>56-04-2</u>	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	
U203	94-59-7	Safrole	
U204	7783-00-8	Selenious acid	
U204	7783-00-8	Selenium dioxide	
U205	7488-56-4	Selenium sulfide	(R, T)
U205	7488-56-4	Selenium sulfide SeS <sub>2</sub>	(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 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 ((H <sub>2</sub> N)C(S)) <sub>2</sub> S <sub>2</sub> , 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	Ethane, 1,1,2-trichloro-	

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 percent 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 percent or less	

## Numerical Listing

USEPA Hazardous Waste No.	Chemical Abstracts No. (CAS No.)	Substance	Hazard Code
U001	75-07-0	Acetaldehyde	(I)
U001	75-07-0	Ethanal	(I)
U002	67-64-1	Acetone	(I)
U002	67-64-1	2-Propanone	(I)
U003	75-05-8	Acetonitrile	(I, T)
U004	98-86-2	Acetophenone	
U004	98-86-2	Ethanone, 1-phenyl-	
U005	53-96-3	Acetamide, N-9H-fluoren-2-yl-	
U005	53-96-3	2-Acetylaminofluorene	
U006	75-36-5	Acetyl chloride	(C, R, T)
U007	79-06-1	Acrylamide	
U007	79-06-1	2-Propenamide	
U008	79-10-7	Acrylic acid	(I)
U008	79-10-7	2-Propenoic acid	(I)
U009	107-13-1	Acrylonitrile	
U009	107-13-1	2-Propenenitrile	



U010	50-07-7	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-(1 $\alpha$ ,8 $\beta$ ,8 $\alpha$ ,8 $\beta$ ))-	
U010	50-07-7	Mitomycin C	
U011	61-82-5	Amitrole	
U011	61-82-5	1H-1,2,4-Triazol-3-amine	
U012	62-53-3	Aniline	(I, T)
U012	62-53-3	Benzenamine	(I, T)
U014	492-80-8	Auramine	
U014	492-80-8	Benzenamine, 4,4'-carbonimidoylbis-(N,N-dimethyl-	
U015	115-02-6	Azaserine	
U015	115-02-6	L-Serine, diazoacetate (ester)	
U016	225-51-4	Benz(c)acridine	
U017	98-87-3	Benzal chloride	
U017	98-87-3	Benzene, (dichloromethyl)-	
U018	56-55-3	Benz(a)anthracene	
U019	71-43-2	Benzene	(I, T)
U020	98-09-9	Benzenesulfonic acid chloride	(C, R)
U020	98-09-9	Benzenesulfonyl chloride	(C, R)
U021	92-87-5	Benzidene	
U021	92-87-5	(1,1'-Biphenyl)-4,4'-diamine	
U022	50-32-8	Benzo(a)pyrene	
U023	98-07-7	Benzene, (trichloromethyl)-	(C, R, T)
U023	98-07-7	Benzotrichloride	(C, R, T)
U024	111-91-1	Dichloromethoxy ethane	
U024	111-91-1	Ethane, 1,1'-(methylenebis(oxy))bis-(2-chloro-	
U025	111-44-4	Dichloroethyl ether	
U025	111-44-4	Ethane, 1,1'-oxybis(2-chloro-	
U026	494-03-1	Chlornaphazin	
U026	494-03-1	Naphthaleneamine, N,N'-bis(2-chloroethyl)-	
U027	108-60-1	Dichloroisopropyl ether	
U027	108-60-1	Propane, 2,2'-oxybis(2-chloro-	
U028	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester	
U028	117-81-7	Diethylhexyl phthalate	
U029	74-83-9	Methane, bromo-	
U029	74-83-9	Methyl bromide	
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-	
U030	101-55-3	4-Bromophenyl phenyl ether	
U031	71-36-3	1-Butanol	(I)
U031	71-36-3	n-Butyl alcohol	(I)

U032	13765-19-0	Calcium chromate	
U032	13765-19-0	Chromic acid H <sub>2</sub> CrO <sub>4</sub> , calcium salt	
U033	353-50-4	Carbonic difluoride	(R, T)
U033	353-50-4	Carbon oxyfluoride	(R, T)
U034	75-87-6	Acetaldehyde, trichloro-	
U034	75-87-6	Chloral	
U035	305-03-3	Benzenebutanoic acid, 4-(bis(2-chloroethyl)amino)-	
U035	305-03-3	Chlorambucil	
U036	57-74-9	Chlordane, $\alpha$ and $\gamma$ isomers	
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-	
U037	108-90-7	Benzene, chloro-	
U037	108-90-7	Chlorobenzene	
U038	510-15-6	Benzeneacetic acid, 4-chloro- $\alpha$ -(4-chlorophenyl)- $\alpha$ -hydroxy-, ethyl ester	
U038	510-15-6	Chlorobenzilate	
U039	59-50-7	p-Chloro-m-cresol	
U039	59-50-7	Phenol, 4-chloro-3-methyl-	
U041	106-89-8	Epichlorohydrin	
U041	106-89-8	Oxirane, (chloromethyl)-	
U042	110-75-8	2-Chloroethyl vinyl ether	
U042	110-75-8	Ethene, (2-chloroethoxy)-	
U043	75-01-4	Ethene, chloro-	
U043	75-01-4	Vinyl chloride	
U044	67-66-3	Chloroform	
U044	67-66-3	Methane, trichloro-	
U045	74-87-3	Methane, chloro-	(I, T)
U045	74-87-3	Methyl chloride	(I, T)
U046	107-30-2	Chloromethyl methyl ether	
U046	107-30-2	Methane, chloromethoxy-	
U047	91-58-7	$\beta$ -Chloronaphthalene	
U047	91-58-7	Naphthalene, 2-chloro-	
U048	95-57-8	o-Chlorophenol	
U048	95-57-8	Phenol, 2-chloro-	
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-, hydrochloride	
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride	
U050	218-01-9	Chrysene	
U051		Creosote	
U052	1319-77-3	Cresol (Cresylic acid)	
U052	1319-77-3	Phenol, methyl-	
U053	4170-30-3	2-Butenal	
U053	4170-30-3	Crotonaldehyde	
U055	98-82-8	Benzene, (1-methylethyl)-	(I)

U055	98-82-8	Cumene	(I)
U056	110-82-7	Benzene, hexahydro-	(I)
U056	110-82-7	Cyclohexane	(I)
U057	108-94-1	Cyclohexanone	(I)
U058	50-18-0	Cyclophosphamide	
U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2- oxide	
U059	20830-81-3	Daunomycin	
U059	20830-81-3	5,12-Naphthacenedione, 8-acetyl-10- ((3-amino-2,3,6-trideoxy)- $\alpha$ -L-lyxo- hexapyranosyl)oxyl)-7,8,9,10-tetra- hydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-	
U060	72-54-8	Benzene, 1,1'-(2,2-dichloroethyl- idene)bis(4-chloro-	
U060	72-54-8	DDD	
U061	50-29-3	Benzene, 1,1'-(2,2,2-trichloroethyl- idene)bis(4-chloro-	
U061	50-29-3	DDT	
U062	2303-16-4	Carbamothioic acid, bis(1-methyl- ethyl)-, S-(2,3-dichloro-2-propenyl) ester	
U062	2303-16-4	Diallate	
U063	53-70-3	Dibenz(a,h)anthracene	
U064	189-55-9	Benzo(rst)pentaphene	
U064	189-55-9	Dibenzo(a,i)pyrene	
U066	96-12-8	1,2-Dibromo-3-chloropropane	
U066	96-12-8	Propane, 1,2-dibromo-3-chloro-	
U067	106-93-4	Ethane, 1,2-dibromo-	
U067	106-93-4	Ethylene dibromide	
U068	74-95-3	Methane, dibromo-	
U068	74-95-3	Methylene bromide	
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester	
U069	84-74-2	Dibutyl phthalate	
U070	95-50-1	Benzene, 1,2-dichloro-	
U070	95-50-1	o-Dichlorobenzene	
U071	541-73-1	Benzene, 1,3-dichloro-	
U071	541-73-1	m-Dichlorobenzene	
U072	106-46-7	Benzene, 1,4-dichloro-	
U072	106-46-7	p-Dichlorobenzene	
U073	91-94-1	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-di- chloro-	
U073	91-94-1	3,3'-Dichlorobenzidine	
U074	764-41-0	2-Butene, 1,4-dichloro-	(I, T)

U074	764-41-0	1,4-Dichloro-2-butene	(I, T)
U075	75-71-8	Dichlorodifluoromethane	
U075	75-71-8	Methane, dichlorodifluoro-	
U076	75-34-3	Ethane, 1,1-dichloro-	
U076	75-34-3	Ethylidene dichloride	
U077	107-06-2	Ethane, 1,2-dichloro-	
U077	107-06-2	Ethylene dichloride	
U078	75-35-4	1,1-Dichloroethylene	
U078	75-35-4	Ethene, 1,1-dichloro-	
U079	156-60-5	1,2-Dichloroethylene	
U079	156-60-5	Ethene, 1,2-dichloro-, (E)-	
U080	75-09-2	Methane, dichloro-	
U080	75-09-2	Methylene chloride	
U081	120-83-2	2,4-Dichlorophenol	
U081	120-83-2	Phenol, 2,4-dichloro-	
U082	87-65-0	2,6-Dichlorophenol	
U082	87-65-0	Phenol, 2,6-dichloro-	
U083	78-87-5	Propane, 1,2-dichloro-	
U083	78-87-5	Propylene dichloride	
U084	542-75-6	1,3-Dichloropropene	
U084	542-75-6	1-Propene, 1,3-dichloro-	
U085	1464-53-5	2,2'-Bioxirane	(I, T)
U085	1464-53-5	1,2:3,4-Diepoxybutane	(I, T)
U086	1615-80-1	N,N'-Diethylhydrazine	
U086	1615-80-1	Hydrazine, 1,2-diethyl-	
U087	3288-58-2	O,O-Diethyl S-methyl di- thiophosphate	
U087	3288-58-2	Phosphorodithioic acid, O,O-diethyl S-methyl ester	
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester	
U088	84-66-2	Diethyl phthalate	
U089	56-53-1	Diethylstilbestrol	
U089	56-53-1	Phenol, 4,4'-(1,2-diethyl-1,2-ethenedi- yl)bis-, (E)-	
U090	94-58-6	1,3-Benzodioxole, 5-propyl-	
U090	94-58-6	Dihydrosafrole	
U091	119-90-4	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-di- methoxy-	
U091	119-90-4	3,3'-Dimethoxybenzidine	
U092	124-40-3	Dimethylamine	(I)
U092	124-40-3	Methanamine, N-methyl-	(I)
U093	60-11-7	Benzenamine, N,N-dimethyl-4- (phenylazo)-	
U093	60-11-7	p-Dimethylaminoazobenzene	
U094	57-97-6	Benz(a)anthracene, 7,12-dimethyl-	

U094	57-97-6	7,12-Dimethylbenz(a)anthracene	
U095	119-93-7	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-	
U095	119-93-7	3,3'-Dimethylbenzidine	
U096	80-15-9	$\alpha$ , $\alpha$ -Dimethylbenzylhydroperoxide	(R)
U096	80-15-9	Hydroperoxide, 1-methyl-1-phenyl-ethyl-	(R)
U097	79-44-7	Carbamic chloride, dimethyl-	
U097	79-44-7	Dimethylcarbamoyl chloride	
U098	57-14-7	1,1-Dimethylhydrazine	
U098	57-14-7	Hydrazine, 1,1-dimethyl-	
U099	540-73-8	1,2-Dimethylhydrazine	
U099	540-73-8	Hydrazine, 1,2-dimethyl-	
U101	105-67-9	2,4-Dimethylphenol	
U101	105-67-9	Phenol, 2,4-dimethyl-	
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester	
U102	131-11-3	Dimethyl phthalate	
U103	77-78-1	Dimethyl sulfate	
U103	77-78-1	Sulfuric acid, dimethyl ester	
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-	
U105	121-14-2	2,4-Dinitrotoluene	
U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-	
U106	606-20-2	2,6-Dinitrotoluene	
U107	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester	
U107	117-84-0	Di-n-octyl phthalate	
U108	123-91-1	1,4-Diethyleneoxide	
U108	123-91-1	1,4-Dioxane	
U109	122-66-7	1,2-Diphenylhydrazine	
U109	122-66-7	Hydrazine, 1,2-diphenyl-	
U110	142-84-7	Dipropylamine	(I)
U110	142-84-7	1-Propanamine, N-propyl-	(I)
U111	621-64-7	Di-n-propylnitrosamine	
U111	621-64-7	1-Propanamine, N-nitroso-N-propyl-	
U112	141-78-6	Acetic acid, ethyl ester	(I)
U112	141-78-6	Ethyl acetate	(I)
U113	140-88-5	Ethyl acrylate	(I)
U113	140-88-5	2-Propenoic acid, ethyl ester	(I)
U114	P 111-54-6	Carbamodithioic acid, 1,2-ethanediylbis-, salts and esters	
U114	P 111-54-6	Ethylenebisdithiocarbamic acid, salts and esters	
U115	75-21-8	Ethylene oxide	(I, T)
U115	75-21-8	Oxirane	(I, T)
U116	96-45-7	Ethylenethiourea	

U116	96-45-7	2-Imidazolidinethione	
U117	60-29-7	Ethane, 1,1'-oxybis-	(I)
U117	60-29-7	Ethyl ether	(I)
U118	97-63-2	Ethyl methacrylate	
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester	
U119	62-50-0	Ethyl methanesulfonate	
U119	62-50-0	Methanesulfonic acid, ethyl ester	
U120	206-44-0	Fluoranthene	
U121	75-69-4	Methane, trichlorofluoro-	
U121	75-69-4	Trichloromonofluoromethane	
U122	50-00-0	Formaldehyde	
U123	64-18-6	Formic acid	(C, T)
U124	110-00-9	Furan	(I)
U124	110-00-9	Furfuran	(I)
U125	98-01-1	2-Furancarboxaldehyde	(I)
U125	98-01-1	Furfural	(I)
U126	765-34-4	Glycidylaldehyde	
U126	765-34-4	Oxiranecarboxyaldehyde	
U127	118-74-1	Benzene, hexachloro-	
U127	118-74-1	Hexachlorobenzene	
U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	
U128	87-68-3	Hexachlorobutadiene	
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1 $\alpha$ ,2 $\alpha$ ,3 $\beta$ ,4 $\alpha$ ,5 $\alpha$ ,6 $\beta$ )-	
U129	58-89-9	Lindane	
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-	
U130	77-47-4	Hexachlorocyclopentadiene	
U131	67-72-1	Ethane, hexachloro-	
U131	67-72-1	Hexachloroethane	
U132	70-30-4	Hexachlorophene	
U132	70-30-4	Phenol, 2,2'-methylenebis(3,4,6-trichloro-	
U133	302-01-2	Hydrazine	(R, T)
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	
U136	75-60-5	Arsinic acid, dimethyl-	
U136	75-60-5	Cacodylic acid	
U137	193-39-5	Indeno(1,2,3-cd)pyrene	
U138	74-88-4	Methane, iodo-	
U138	74-88-4	Methyl iodide	
U140	78-83-1	Isobutyl alcohol	(I, T)

U140	78-83-1	1-Propanol, 2-methyl-	(I, T)
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-	
U141	120-58-1	Isosafrole	
U142	143-50-0	Kepone	
U142	143-50-0	1,3,4-Metheno-2H-cyclobuta(cd)- pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachloro- octahydro-	
U143	303-34-4	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*), 7 $\alpha$ ))-	
U143	303-34-4	Lasiocarpene	
U144	301-04-2	Acetic acid, lead (2+) salt	
U144	301-04-2	Lead acetate	
U145	7446-27-7	Lead phosphate	
U145	7446-27-7	Phosphoric acid, lead (2+) salt (2:3)	
U146	1335-32-6	Lead, bis(acetato-O)tetrahydroxytri-	
U146	1335-32-6	Lead subacetate	
U147	108-31-6	2,5-Furandione	
U147	108-31-6	Maleic anhydride	
U148	123-33-1	Maleic hydrazide	
U148	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-	
U149	109-77-3	Malononitrile	
U149	109-77-3	Propanedinitrile	
U150	148-82-3	Melphalan	
U150	148-82-3	L-Phenylalanine, 4-(bis(2-chloro- ethyl)amino)-	
U151	7439-97-6	Mercury	
U152	126-98-7	Methacrylonitrile	(I, T)
U152	126-98-7	2-Propenenitrile, 2-methyl-	(I, T)
U153	74-93-1	Methanethiol	(I, T)
U153	74-93-1	Thiomethanol	(I, T)
U154	67-56-1	Methanol	(I)
U154	67-56-1	Methyl alcohol	(I)
U155	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N'- 2-pyridinyl-N'-(2-thienylmethyl)-	
U155	91-80-5	Methapyrilene	
U156	79-22-1	Carbonochloridic acid, methyl ester	(I, T)
U156	79-22-1	Methyl chlorocarbonate	(I, T)
U157	56-49-5	Benz(j)aceanthrylene, 1,2-dihydro-3- methyl-	
U157	56-49-5	3-Methylcholanthrene	
U158	101-14-4	Benzenamine, 4,4'-methylenebis(2- chloro-	

U158	101-14-4	4,4'-Methylenebis(2-chloroaniline)	
U159	78-93-3	2-Butanone	(I, T)
U159	78-93-3	Methyl ethyl ketone (MEK)	(I, T)
U160	1338-23-4	2-Butanone, peroxide	(R, T)
U160	1338-23-4	Methyl ethyl ketone peroxide	(R, T)
U161	108-10-1	Methyl isobutyl ketone	(I)
U161	108-10-1	4-Methyl-2-pentanone	(I)
U161	108-10-1	Pentanol, 4-methyl-	(I)
U162	80-62-6	Methyl methacrylate	(I, T)
U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester	(I, T)
U163	70-25-7	Guanidine, N-methyl-N'-nitro-N-nitroso-	
U163	70-25-7	MNNG	
U164	56-04-2	Methylthiouracil	
U164	<del>58-04-2</del> 56-04-2	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-	
U165	91-20-3	Naphthalene	
U166	130-15-4	1,4-Naphthalenedione	
U166	130-15-4	1,4-Naphthoquinone	
U167	134-32-7	1-Naphthalenamine	
U167	134-32-7	$\alpha$ -Naphthylamine	
U168	91-59-8	2-Naphthalenamine	
U168	91-59-8	$\beta$ -Naphthylamine	
U169	98-95-3	Benzene, nitro-	(I, T)
U169	98-95-3	Nitrobenzene	(I, T)
U170	100-02-7	p-Nitrophenol	
U170	100-02-7	Phenol, 4-nitro-	
U171	79-46-9	2-Nitropropane	(I, T)
U171	79-46-9	Propane, 2-nitro-	(I, T)
U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-	
U172	924-16-3	N-Nitrosodi-n-butylamine	
U173	1116-54-7	Ethanol, 2,2'-(nitrosoimino)bis-	
U173	1116-54-7	N-Nitrosodiethanolamine	
U174	55-18-5	Ethanamine, N-ethyl-N-nitroso-	
U174	55-18-5	N-Nitrosodiethylamine	
U176	759-73-9	N-Nitroso-N-ethylurea	
U176	759-73-9	Urea, N-ethyl-N-nitroso-	
U177	684-93-5	N-Nitroso-N-methylurea	
U177	684-93-5	Urea, N-methyl-N-nitroso-	
U178	615-53-2	Carbamic acid, methylnitroso-, ethyl ester	
U178	615-53-2	N-Nitroso-N-methylurethane	
U179	100-75-4	N-Nitrosopiperidine	
U179	100-75-4	Piperidine, 1-nitroso-	
U180	930-55-2	N-Nitrosopyrrolidine	



U180	930-55-2	Pyrrolidine, 1-nitroso-	
U181	99-55-8	Benzenamine, 2-methyl-5-nitro-	
U181	99-55-8	5-Nitro-o-toluidine	
U182	123-63-7	Paraldehyde	
U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-	
U183	608-93-5	Benzene, pentachloro-	
U183	608-93-5	Pentachlorobenzene	
U184	76-01-7	Ethane, pentachloro-	
U184	76-01-7	Pentachloroethane	
U185	82-68-8	Benzene, pentachloronitro-	
U185	82-68-8	Pentachloronitrobenzene (PCNB)	
U186	504-60-9	1-Methylbutadiene	(I)
U186	504-60-9	1,3-Pentadiene	(I)
U187	62-44-2	Acetamide, N-(4-ethoxyphenyl)-	
U187	62-44-2	Phenacetin	
U188	108-95-2	Phenol	
U189	1314-80-3	Phosphorus sulfide	(R)
U189	1314-80-3	Sulfur phosphide	(R)
U190	85-44-9	1,3-Isobenzofurandione	
U190	85-44-9	Phthalic anhydride	
U191	109-06-8	2-Picoline	
U191	109-06-8	Pyridine, 2-methyl-	
U192	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-	
U192	23950-58-5	Pronamide	
U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide	
U193	1120-71-4	1,3-Propane sultone	
U194	107-10-8	1-Propanamine	(I, T)
U194	107-10-8	n-Propylamine	(I, T)
U196	110-86-1	Pyridine	
U197	106-51-4	p-Benzoquinone	
U197	106-51-4	2,5-Cyclohexadiene-1,4-dione	
U200	50-55-5	Reserpine	
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 $\alpha$ )-	
U201	108-46-3	1,3-Benzenediol	
U201	108-46-3	Resorcinol	
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-	
U203	94-59-7	Safrole	
U204	7783-00-8	Selenious acid	
U204	7783-00-8	Selenium dioxide	
U205	7488-56-4	Selenium sulfide	(R, T)
U205	7488-56-4	Selenium sulfide SeS <sub>2</sub>	(R, T)

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)-	
U206	18883-66-4	Streptozotocin	
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-	
U207	95-94-3	1,2,4,5-Tetrachlorobenzene	
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-	
U208	630-20-6	1,1,1,2-Tetrachloroethane	
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-	
U209	79-34-5	1,1,2,2-Tetrachloroethane	
U210	127-18-4	Ethene, tetrachloro-	
U210	127-18-4	Tetrachloroethylene	
U211	56-23-5	Carbon tetrachloride	
U211	56-23-5	Methane, tetrachloro-	
U213	109-99-9	Furan, tetrahydro-	(I)
U213	109-99-9	Tetrahydrofuran	(I)
U214	563-68-8	Acetic acid, thallium (1+) salt	
U214	563-68-8	Thallium (I) acetate	
U215	6533-73-9	Carbonic acid, dithallium (1+) salt	
U215	6533-73-9	Thallium (I) carbonate	
U216	7791-12-0	Thallium (I) chloride	
U216	7791-12-0	Thallium chloride TlCl	
U217	10102-45-1	Nitric acid, thallium (1+) salt	
U217	10102-45-1	Thallium (I) nitrate	
U218	62-55-5	Ethanethioamide	
U218	62-55-5	Thioacetamide	
U219	62-56-6	Thiourea	
U220	108-88-3	Benzene, methyl-	
U220	108-88-3	Toluene	
U221	25376-45-8	Benzenediamine, ar-methyl-	
U221	25376-45-8	Toluenediamine	
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride	
U222	636-21-5	o-Toluidine hydrochloride	
U223	26471-62-5	Benzene, 1,3-diisocyanatomethyl-	(R, T)
U223	26471-62-5	Toluene diisocyanate	(R, T)
U225	75-25-2	Bromoform	
U225	75-25-2	Methane, tribromo-	
U226	71-55-6	Ethane, 1,1,1-trichloro-	
U226	71-55-6	Methylchloroform	
U227	79-00-5	Ethane, 1,1,2-trichloro-	
U227	79-00-5	1,1,2-Trichloroethane	
U228	79-01-6	Ethene, trichloro-	
U228	79-01-6	Trichloroethylene	
U234	99-35-4	Benzene, 1,3,5-trinitro-	(R, T)

U234	99-35-4	1,3,5-Trinitrobenzene	(R, T)
U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)	
U235	126-72-7	Tris(2,3-dibromopropyl) phosphate	
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	
U236	72-57-1	Trypan blue	
U237	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5-(bis-(2-chloroethyl)amino)-	
U237	66-75-1	Uracil mustard	
U238	51-79-6	Carbamic acid, ethyl ester	
U238	51-79-6	Ethyl carbamate (urethane)	
U239	1330-20-7	Benzene, dimethyl-	(I, T)
U239	1330-20-7	Xylene	(I, T)
U240	P 94-75-7	Acetic acid, (2,4-dichlorophenoxy)-, salts and esters	
U240	P 94-75-7	2,4-D, salts and esters	
U243	1888-71-7	Hexachloropropene	
U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-	
U244	137-26-8	Thioperoxydicarbonic diamide ((H <sub>2</sub> N)C(S)) <sub>2</sub> S <sub>2</sub> , tetramethyl-	
U244	137-26-8	Thiram	
U246	506-68-3	Cyanogen bromide CNBr	
U247	72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-methoxy-	
U247	72-43-5	Methoxychlor	
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 percent or less	
U248	P-81-81-2	Warfarin, and salts, when present at concentrations of 0.3 percent or less	
U249	1314-84-7	Zinc phosphide Zn <sub>3</sub> P <sub>2</sub> , when present at concentrations of 10 percent or less	
U271	17804-35-2	Benomyl	
U271	17804-35-2	Carbamic acid, (1-((butylamino)-carbonyl)-1H-benzimidazol-2-yl)-, methyl ester	
U278	22781-23-3	Bendiocarb	
U278	22781-23-3	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate	
U279	63-25-2	Carbaryl	
U279	63-25-2	1-Naphthalenol, methylcarbamate	
U280	101-27-9	Barban	

U280	101-27-9	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester
U328	95-53-4	Benzenamine, 2-methyl-
U328	95-53-4	o-Toluidine
U353	106-49-0	Benzenamine, 4-methyl-
U353	106-49-0	p-Toluidine
U359	110-80-5	Ethanol, 2-ethoxy-
U359	110-80-5	Ethylene glycol monoethyl ether
U364	22961-82-6	Bendiocarb phenol
U364	22961-82-6	1,3-Benzodioxol-4-ol, 2,2-dimethyl-
U367	1563-38-8	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-
U367	1563-38-8	Carbofuran phenol
U372	10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester
U372	10605-21-7	Carbendazim
U373	122-42-9	Carbamic acid, phenyl-, 1-methyl-ethyl ester
U373	122-42-9	Propham
U387	52888-80-9	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester
U387	52888-80-9	Prosulfocarb
U389	2303-17-5	Carbamothioic acid, bis(1-methyl-ethyl)-, S-(2,3,3-trichloro-2-propenyl) ester
U389	2303-17-5	Triallate
U394	30558-43-1	A2213
U394	30558-43-1	Ethanimidothioic acid, 2-(dimethyl-amino)-N-hydroxy-2-oxo-, methyl ester
U395	5952-26-1	Diethylene glycol, dicarbamate
U395	5952-26-1	Ethanol, 2,2'-oxybis-, dicarbamate
U404	121-44-8	Ethanamine, N,N-diethyl-
U404	121-44-8	Triethylamine
U409	23564-05-8	Carbamic acid, (1,2-phenylenebis-(iminocarbonothioyl))bis-, dimethyl ester
U409	23564-05-8	Thiophanate-methyl
U410	59669-26-0	Ethanimidothioic acid, N,N'- (thiobis-((methylimino)carbonyloxy))bis-, dimethyl ester
U410	59669-26-0	Thiodicarb
U411	114-26-1	Phenol, 2-(1-methylethoxy)-, methyl-carbamate
U411	114-26-1	Propoxur

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## SUBPART E: EXCLUSIONS AND EXEMPTIONS

**Section 721.135 Wood Preserving Wastes**

- a) Wastes from wood preserving processes at plants that do not resume or initiate use of chlorophenolic preservatives will not meet the listing definition of F032 once the generator has met all of the requirements of subsections (b) and (c) ~~of this Section~~. These wastes may, however, continue to meet another hazardous waste listing description or may exhibit one or more of the hazardous waste characteristics.
- b) Generators must either clean or replace all process equipment that may have come into contact with chlorophenolic formulations or constituents thereof, including, but not limited to, treatment cylinders, sumps, tanks, piping systems, drip pads, fork lifts and trams, in a manner that minimizes or eliminates the escape of hazardous waste or constituents, leachate, contaminated drippage or hazardous waste decomposition products to the groundwater, surface water, or atmosphere.
  - 1) Generators must do one of the following:
    - A) Prepare and follow an equipment cleaning plan and clean equipment in accordance with ~~this Section~~ subsection (b)(2); or
    - B) Prepare and follow an equipment replacement plan and replace equipment in accordance with ~~this Section~~ subsection (b)(3); or
    - C) Document cleaning and replacement in accordance with ~~this Section~~ subsections (b)(2) and (b)(3), carried out after termination of use of chlorophenolic preservatives.
  - 2) Cleaning requirements.
    - A) The generator must prepare and sign a written equipment cleaning plan that describes the following:
      - i) The equipment to be cleaned;
      - ii) How the equipment will be cleaned;
      - iii) The solvent to be used in cleaning;
      - iv) How solvent rinses will be tested; and
      - v) How cleaning residues will be disposed of.
    - B) Equipment must be cleaned as follows:
      - i) Remove all visible residues from process equipment; and

- ii) Rinse process equipment with an appropriate solvent until dioxins and dibenzofurans are not detected in the final solvent rinse.
- C) Analytical requirements.
- i) Rinses must be tested by using an appropriate method.
  - ii) “Not detected” means at or below the following lower method calibration limit (MCL): the 2,3,7,8-TCDD-based MCL is 0.01 parts per trillion (ppt), using a sample weight of 1000 g, an IS spiking level of 1 ppt, and a final extraction volume of 10 to 50  $\mu\ell$ . For other congeners, multiply the values by 1 for TCDF, PeCDD, or PeCDF; by 2.5 for HxCDD, HxCDF, HpCDD, or HpCDF; or by 5 for OCDD or OCDF.
- D) The generator must manage all residues from the cleaning process as F032 waste.
- 3) Replacement requirements.
- A) ~~Prepare~~ The generator must prepare and sign a written equipment replacement plan that describes the following:
- i) The equipment to be replaced;
  - ii) How the equipment will be replaced; and
  - iii) How the equipment will be disposed of.
- B) The generator must manage the discarded equipment as F032 waste.
- 4) Documentation requirements. ~~Document~~ The generator must document that previous equipment cleaning and replacement was performed in accordance with subsections (b)(2) and (b)(3) of this Section and occurred that the equipment cleaning and replacement occurred after cessation of use of chlorophenolic preservatives.
- c) The generator must maintain the following records documenting the cleaning and replacement as part of the facility’s operating record:
- 1) The name and address of the facility;
  - 2) Formulations previously used and the date on which their use ceased in each process at the plant;

- 3) Formulations currently used in each process at the plant;
- 4) The equipment cleaning or replacement plan;
- 5) The name and address of any persons who conducted the cleaning and replacement;
- 6) The dates on which cleaning and replacement were accomplished;
- 7) The dates of sampling and testing;
- 8) A description of the sample handling and preparation techniques used for extraction, containerization, preservation and chain-of-custody of the samples;
- 9) A description of the tests performed, the date the tests were performed and the results of the tests;
- 10) The name and model numbers of the instruments used in performing the tests;
- 11) QA/QC documentation; and
- 12) The following statement signed by the generator or the generator's authorized representative:

I certify under penalty of law that all process equipment required to be cleaned or replaced under 35 Ill. Adm. Code 721.135 was cleaned or replaced as represented in the equipment cleaning and replacement plan and accompanying documentation. I am aware that there are significant penalties for providing false information, including the possibility of fine or imprisonment.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.138 Exclusion of Comparable Fuel and Syngas Fuel (Repealed)**

- ~~a) Specifications for excluded fuels. Wastes that meet specifications for comparable fuel or syngas fuel under subsection (a)(1) or (a)(2) of this Section, respectively, and the other requirements of this Section, are not solid wastes:~~
- ~~1) Comparable fuel specifications:
 
    - ~~A) Physical specifications:
 
      - ~~i) Heating value. The heating value must exceed 5,000 Btu/lb (11,500 J/g).~~
      - ~~ii) Viscosity. The viscosity must not exceed 50 cS, as fired.~~~~~~

- B) ~~Constituent specifications. For the compounds listed, the constituent specification levels and minimum required detection limits (where non-detect is the constituent specification) are set forth in the table in Appendix Y to this Part.~~
- 2) ~~Synthesis gas fuel specifications. Synthesis gas fuel (i.e., syngas fuel) that is generated from hazardous waste must fulfill the following requirements:~~
- A) ~~It must have a minimum Btu value of 100 Btu/Scf;~~
  - B) ~~It must contain less than 1 ppmv of total halogen;~~
  - C) ~~It must contain less than 300 ppmv of total nitrogen other than diatomic nitrogen ( $N_2$ );~~
  - D) ~~It must contain less than 200 ppmv of hydrogen sulfide; and~~
  - E) ~~It must contain less than 1 ppmv of each hazardous constituent in the target list of constituents listed in Appendix H of this Part.~~
- 3) ~~Blending to meet the specifications.~~
- A) ~~Hazardous waste shall not be blended to meet the comparable fuel specification under subsection (a)(1) of this Section, except as provided by subsection (a)(3)(B) of this Section.~~
  - B) ~~Blending to meet the viscosity specification. A hazardous waste blended to meet the viscosity specification for comparable fuel must fulfill the following requirements:~~
    - i) ~~As generated, and prior to any blending, manipulation, or processing, the hazardous waste must meet the constituent and heating value specifications of subsections (a)(1)(A)(i) and (a)(1)(B) of this Section;~~
    - ii) ~~The hazardous waste must be blended at a facility that is subject to the applicable requirements of 35 Ill. Adm. Code 722.134, 724, 725, or 727; and~~
    - iii) ~~The hazardous waste must not violate the dilution prohibition of subsection (a)(6) of this Section.~~
- 4) ~~Treatment to meet the comparable fuel specifications.~~
- A) ~~A hazardous waste may be treated to meet the specifications for comparable fuel set forth in subsection (a)(1) of this Section, provided the treatment fulfills the following requirements:~~



- i) ~~The treatment destroys or removes the constituent listed in the specification or raises the heating value by removing or destroying hazardous constituents or materials;~~
    - ii) ~~The treatment is performed at a facility that is subject to the applicable requirements of 35 Ill. Adm. Code 722.134, 724, 725, or 727; and~~
    - iii) ~~The treatment does not violate the dilution prohibition of subsection (a)(6) of this Section.~~
  - B) ~~Residuals resulting from the treatment of a hazardous waste listed in Subpart D of this Part to generate a comparable fuel remain a hazardous waste.~~
- 5) ~~Generation of a syngas fuel.~~
  - A) ~~A syngas fuel can be generated from the processing of hazardous wastes to meet the exclusion specifications of subsection (a)(2) of this Section, provided the processing fulfills the following requirements:~~
    - i) ~~The processing destroys or removes the constituent listed in the specification or raises the heating value by removing or destroying constituents or materials;~~
    - ii) ~~The processing is performed at a facility that is subject to the applicable requirements of 35 Ill. Adm. Code 722.134, 724, 725, or 727 or is an exempt recycling unit pursuant to 35 Ill. Adm. Code 721.106(c); and~~
    - iii) ~~The processing does not violate the dilution prohibition of subsection (a)(6) of this Section.~~
  - B) ~~Residuals resulting from the treatment of a hazardous waste listed in Subpart D of this Part to generate a syngas fuel remain a hazardous waste.~~
- 6) ~~Dilution prohibition. A generator, transporter, handler, or owner or operator of a treatment, storage, or disposal facility must not in any way dilute a hazardous waste to meet the specifications of subsections (a)(1)(A)(i) or (a)(1)(B) of this Section for comparable fuel, or subsection (a)(2) of this section for Syngas.~~
  - b) ~~Implementation.~~
    - 1) ~~General.~~

A) ~~Wastes that meet the specifications provided by subsection (a) of this Section for comparable fuel or syngas fuel are excluded from the definition of solid waste provided that the following requirements are met. For purposes of this Section, such materials are called “excluded fuel,” the person claiming and qualifying for the exclusion is called the “excluded fuel generator,” and the person burning the excluded fuel is called the “excluded fuel burner.”~~B) ~~The person who generates the excluded fuel must claim the exclusion by complying with the conditions of this Section and keeping records necessary to document compliance with those conditions.~~

2) ~~Notices.~~

A) ~~Notice to the Agency.~~

i) ~~The generator must submit a one-time notice, except as provided by subsection (b)(2)(A)(iii) of this Section, to the Agency, certifying compliance with the conditions of the exclusion and providing documentation, as required by subsection (b)(2)(C) of this Section;~~

BOARD NOTE: This subsection (b)(2)(A)(i) corresponds with 40 CFR 261.38(e)(2)(i)(A) (2009). Due to limitations on the maximum indent levels allowed in the Illinois Administrative Code, the Board found it necessary to move 40 CFR 261.38(e)(2)(i)(A)(1) through (e)(2)(i)(A)(5) to appear as subsections (e)(2)(C)(i) through (e)(2)(C)(v) of this Section.

ii) ~~If there is a substantive change in the information provided in the one-time notice required under this subsection (b)(2)(A), the generator must submit a revised notification.~~

iii) ~~An excluded fuel generator must include an estimate of the average and maximum monthly and annual quantity of material for which an exclusion would be claimed in notices for newly excluded fuel or for revised notices as required by subsection (b)(2)(A)(ii) of this Section.~~

B) ~~Public notice. Prior to burning an excluded fuel, the burner must publish in a major newspaper of general circulation, local to the site where the fuel will be burned, a notice entitled “Notification of Burning a Fuel Excluded Under the Resource Conservation and Recovery Act” containing the following information:~~

i) ~~The name, address, and USEPA identification number of the generating facility;~~

- ii) ~~The name and address of the burner and identification of the units that will burn the excluded fuel;~~
  - iii) ~~A brief, general description of the manufacturing, treatment, or other process generating the excluded fuel;~~
  - iv) ~~An estimate of the average and maximum monthly and annual quantity of the excluded fuel to be burned; and~~
  - v) ~~The name and mailing address of the Agency office to which the generator submitted a claim for the exclusion.~~
- C) ~~The one-time notice required by subsection (b)(2)(A)(i) of this Section must certify compliance with the conditions of the exclusion and provide documentation, as follows:~~
- i) ~~The name, address, and USEPA identification number of the person or facility claiming the exclusion;~~
  - ii) ~~The applicable USEPA hazardous waste codes for the hazardous waste;~~
  - iii) ~~The name and address of the units that meet the requirements of subsections (b)(3) and (c) of this Section that will burn the excluded fuel;~~
  - iv) ~~An estimate of the average and maximum monthly and annual quantity of material for which an exclusion would be claimed, except as provided by subsection (b)(2)(A)(iii) of this Section; and~~
  - v) ~~The following statement must be signed and submitted by the person claiming the exclusion or its authorized representative:~~

~~Under penalty of criminal and civil prosecution for making or submitting false statements, representations, or omissions, I certify that the requirements of 35 Ill. Adm. Code 721.138 have been met for all waste identified in this notification. Copies of the records and information required by 35 Ill. Adm. Code 721.138(b)(8) are available at the comparable or syngas fuel generator's facility. Based on my inquiry of the individuals immediately responsible for obtaining the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false~~

information, including the possibility of fine and imprisonment for knowing violations.

BOARD NOTE: Subsections (b)(2)(C)(i) through (c)(2)(C)(v) are derived from 40 CFR 261.138(b)(2)(i)(A)(1) through (b)(2)(i)(A)(5), which the Board has codified here to comport with Illinois Administrative Code format requirements.

- 3) ~~Burning. The exclusion applies only if the fuel is burned in the following units that also must be subject to federal, State, and local air emission requirements, including all applicable federal hazardous air pollutant emissions requirements implementing section 112 of the Clean Air Act (CAA) (42 USC 7412):~~
- A) ~~Industrial furnaces, as defined in 35 Ill. Adm. Code 720.110;~~
  - B) ~~Boilers, as defined in 35 Ill. Adm. Code 720.110, that are further defined as follows:~~
    - i) ~~Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes; or~~
    - ii) ~~Utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale;~~
  - C) ~~Hazardous waste incinerators subject to regulation pursuant to Subpart O of 35 Ill. Adm. Code 724 or Subpart O of 35 Ill. Adm. Code 725 and applicable CAA MACT standards.~~
  - D) ~~Gas turbines used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale.~~
- 4) ~~Fuel analysis plan for generators. The generator of an excluded fuel must develop and follow a written fuel analysis plan that describes the procedures for sampling and analysis of the material to be excluded. The plan must be followed and retained at the site of the generator claiming the exclusion.~~
- A) ~~At a minimum, the plan must specify the following:~~
    - i) ~~The parameters for which each excluded fuel will be analyzed and the rationale for the selection of those parameters;~~
    - ii) ~~The test methods that will be used to test for these parameters;~~

- iii) ~~The sampling method that will be used to obtain a representative sample of the excluded fuel to be analyzed;~~
  - iv) ~~The frequency with which the initial analysis of the excluded fuel will be reviewed or repeated to ensure that the analysis is accurate and up to date; and~~
  - v) ~~If process knowledge is used in the determination, any information prepared by the generator in making such determination.~~
- B) ~~For each analysis, the generator must also document the following:~~
- i) ~~The dates and times that waste samples were obtained, and the dates the samples were analyzed;~~
  - ii) ~~The names and qualifications of the persons who obtained the samples;~~
  - iii) ~~A description of the temporal and spatial locations of the samples;~~
  - iv) ~~The name and address of the laboratory facility at which analyses of the samples were performed;~~
  - v) ~~A description of the analytical methods used, including any clean-up and sample preparation methods;~~
  - vi) ~~All quantitation limits achieved and all other quality control results for the analysis (including method blanks, duplicate analyses, matrix spikes, etc.), laboratory quality assurance data, and description of any deviations from analytical methods written in the plan or from any other activity written in the plan that occurred;~~
  - vii) ~~All laboratory results demonstrating whether the exclusion specifications have been met; and~~
  - viii) ~~All laboratory documentation that supports the analytical results, unless a contract between the claimant and the laboratory provides for the documentation to be maintained by the laboratory for the period specified in subsection (b)(9) of this Section and also provides for the availability of the documentation to the claimant upon request.~~
- C) ~~A syngas fuel generator must submit for approval, prior to performing sampling, analysis, or any management of an excluded syngas fuel, a fuel analysis plan containing the elements of subsection (b)(4)(A) of this~~

~~Section to the Agency. The approval of a fuel analysis plan must be stated in writing and received by the facility prior to sampling and analysis to demonstrate the exclusion of a syngas. The approval of the fuel analysis plan may contain such provisions and conditions as the regulatory authority deems appropriate.~~

~~5) Excluded fuel sampling and analysis.~~

~~A) General. For each waste for which an exclusion is claimed under the specifications provided by subsection (a)(1) or (a)(2) of this Section, the generator of the waste must test for all the constituents in Appendix H of this Part, except for those constituents that the generator determines, based on testing or knowledge, should not be present in the fuel. The generator is required to document the basis of each determination that a constituent with an applicable specification should not be present. The generator may not determine that any of the following categories of constituents with a specification in the table in Appendix Y to this Part should not be present:~~

~~i) A constituent that triggered the toxicity characteristic for the constituents that were the basis for listing the secondary material as a hazardous waste, or constituents for which there is a treatment standard for the waste code in 35 Ill. Adm. Code 728.140;~~

~~ii) A constituent detected in previous analysis of the waste;~~

~~iii) Constituents introduced into the process that generates the waste; or~~

~~iv) Constituents that are byproducts or side reactions to the process that generates the waste.~~

~~B) Use of process knowledge. For each waste for which the comparable fuel or syngas exclusion is claimed where the generator of the excluded fuel is not the original generator of the hazardous waste, the generator of the comparable or syngas fuel may not use process knowledge pursuant to subsection (b)(5)(A) of this Section and must test to determine that all of the constituent specifications of subsections (a)(1) and (a)(2) of this Section, as applicable, have been met.~~

~~C) The excluded fuel generator may use any reliable analytical method to demonstrate that no constituent of concern is present at concentrations above the specification levels. It is the responsibility of the generator to ensure that the sampling and analysis are unbiased, precise, and representative of the excluded~~

fuel. For the fuel to be eligible for exclusion, a generator must demonstrate the following:

- i) ~~That the 95% upper confidence limit of the mean concentration for each constituent of concern is not above the specification level; and~~
  - ii) ~~That the analyses could have detected the presence of the constituent at or below the specification level.~~
- D) ~~Nothing in this subsection (b)(5) preempts, overrides, or otherwise negates the provision in 35 Ill. Adm. Code 722.111 that requires any person that generates a solid waste to determine if that waste is a hazardous waste.~~
- E) ~~In an enforcement action, the burden of proof to establish conformance with the exclusion specification must be on the generator claiming the exclusion.~~
- F) ~~The generator must conduct sampling and analysis in accordance with the fuel its waste analysis plan developed pursuant to subsection (b)(4) of this Section.~~
- G) ~~Viscosity condition for comparable fuel.~~
- i) ~~Excluded comparable fuel that has not been blended to meet the kinematic viscosity specification must be analyzed as generated.~~
  - ii) ~~If hazardous waste is blended to meet the kinematic viscosity specification for comparable fuel, the generator must analyze the hazardous waste as generated to ensure that it meets the constituent and heating value specifications of subsection (a)(1) of this Section, and after blending, analyze the fuel again to ensure that the blended fuel meets all comparable fuel specifications.~~
- BOARD NOTE: The Board found it necessary to combine the text of 40 CFR 261.38(b)(5)(vii)(B)(1) and (b)(5)(vii)(B)(2) together with the text of 40 CFR 261.38(b)(5)(vii)(B) to comport with the maximum indent level allowed by Illinois Administrative Code codification requirements.
- H) ~~Excluded fuel must be retested, at a minimum, annually and must be retested after a process change that could change its chemical or physical properties in a manner that may affect conformance with the specifications.~~

~~BOARD NOTE: Any claim pursuant to this Section must be valid and accurate for all hazardous constituents; a determination not to test for a hazardous constituent will not shield a generator from liability should that constituent later be found in the waste above the exclusion specifications.~~

- ~~6) This subsection (b)(6) corresponds with 40 CFR 261.38(b)(6), which USEPA has marked "reserved." This statement maintains structural parity with the corresponding federal regulations.~~
- ~~7) Speculative accumulation. Excluded fuel must not be accumulated speculatively, as such is defined in 35 Ill. Adm. Code 721.101(e)(8).~~
- ~~8) Operating record. The generator must maintain an operating record on site containing the following information:
  - ~~A) All information required to be submitted to the implementing authority as part of the notification of the claim:
    - ~~i) The owner or operator name, address, and USEPA identification number of the person claiming the exclusion;~~
    - ~~ii) For each excluded fuel, the USEPA hazardous waste codes that would be applicable if the material were discarded; and~~
    - ~~iii) The certification signed by the person claiming the exclusion or his authorized representative;~~~~
  - ~~B) A brief description of the process that generated the excluded fuel. If the comparable fuel generator is not the generator of the original hazardous waste, provide a brief description of the process that generated the hazardous waste;~~
  - ~~C) The monthly and annual quantities of each fuel claimed to be excluded;~~
  - ~~D) Documentation for any claim that a constituent is not present in the excluded fuel, as required pursuant to subsection (b)(5)(A) of this Section;~~
  - ~~E) The results of all analyses and all detection limits achieved, as required pursuant to subsection (b)(5) of this Section;~~
  - ~~F) If the comparable fuel was generated through treatment or blending, documentation of compliance with the applicable provisions of subsections (a)(3) and (a)(4) of this Section;~~~~



- ~~G) — If the excluded fuel is to be shipped off site, a certification from the burner, as required pursuant to subsection (b)(10) of this Section;~~
- ~~H) — The fuel analysis plan and documentation of all sampling and analysis results as required by subsection (b)(4) of this Section; and~~
- ~~I) — If the generator ships excluded fuel off site for burning, the generator must retain for each shipment the following information on-site:
  - ~~i) — The name and address of the facility receiving the excluded fuel for burning;~~
  - ~~ii) — The quantity of excluded fuel shipped and delivered;~~
  - ~~iii) — The date of shipment or delivery;~~
  - ~~iv) — A cross reference to the record of excluded fuel analysis or other information used to make the determination that the excluded fuel meets the specifications, as required pursuant to subsection (b)(5) of this Section; and~~
  - ~~v) — A one time certification by the burner, as required pursuant to subsection (b)(10) of this Section.~~~~
- ~~9) — Records retention. Records must be maintained for a period of three years.~~
- ~~10) — Burner certification to the generator. Prior to submitting a notification to the Agency, a generator of excluded fuel that intends to ship the excluded fuel off site for burning must obtain a one-time written, signed statement from the burner that includes the following:
  - ~~A) — A certification that the excluded fuel will only be burned in an industrial furnace, industrial boiler, utility boiler, or hazardous waste incinerator, as required pursuant to subsection (b)(3) of this Section;~~
  - ~~B) — Identification of the name and address of the facility that will burn the excluded fuel; and~~
  - ~~C) — A certification that the state in which the burner is located is authorized to exclude wastes as excluded fuel under the provisions of 40 CFR 261.38.~~~~

- 11) ~~Ineligible waste codes. Wastes that are listed as hazardous waste because of the presence of dioxins or furans, as set out in Appendix G of this Part, are not eligible for these exclusions, and any fuel produced from or otherwise containing these wastes remains a hazardous waste subject to the full RCRA hazardous waste management requirements.~~
- 12) ~~Regulatory status of boiler residues. Burning excluded fuel that was otherwise a hazardous waste listed under Sections 721.131 through 721.133 of this Part does not subject boiler residues, including bottom ash and emission control residues, to regulation as derived from hazardous wastes.~~
- 13) ~~Residues in containers and tank systems upon cessation of operations.~~
  - A) ~~Liquid and accumulated solid residues that remain in a container or tank system for more than 90 days after the container or tank system ceases to be operated for storage or transport of excluded fuel product are subject to regulation under 35 Ill. Adm. Code 702, 703, 722 through 725, 727, and 728.~~
  - B) ~~Liquid and accumulated solid residues that are removed from a container or tank system after the container or tank system ceases to be operated for storage or transport of excluded fuel product are solid wastes subject to regulation as hazardous waste if the waste exhibits a characteristic of hazardous waste under Sections 721.121 through 721.124 or if the fuel were otherwise a hazardous waste listed under Sections 721.131 through 721.133 when the exclusion was claimed.~~
  - C) ~~Liquid and accumulated solid residues that are removed from a container or tank system and which do not meet the specifications for exclusion under subsection (a)(1) or (a)(2) of this Section are solid wastes subject to regulation as hazardous waste if either of the following conditions exist with regard to the residues:~~
    - i) ~~The waste exhibits a characteristic of hazardous waste under Sections 721.121 through 721.124; or~~
    - ii) ~~The fuel was otherwise a hazardous waste listed under Sections 721.131 through 721.133. The hazardous waste code for the listed waste applies to these liquid and accumulated solid residues.~~
- 14) ~~Waiver of RCRA closure requirements. Interim status and permitted storage and combustion units, and generator storage units exempt from the permit requirements under 35 Ill. Adm. Code 722.134, are not subject to the closure requirements of 35 Ill. Adm. Code 724, 725, or 727, provided that the storage and combustion unit has been used to manage only~~

~~hazardous waste that is subsequently excluded under the conditions of this Section, and that afterward will be used only to manage fuel excluded under this Section.~~

~~15) Spills and leaks.~~

~~A) Excluded fuel that is spilled or leaked and that therefore no longer meets the conditions of the exclusion is discarded and must be managed as a hazardous waste if it exhibits a characteristic of hazardous waste under Sections 721.121 through 721.124 or if the fuel were otherwise a hazardous waste listed in Sections 721.131 through 721.133.~~

~~B) For excluded fuel that would have otherwise been a hazardous waste listed in Sections 721.131 through 721.133 and which is spilled or leaked, the USEPA hazardous waste code for the listed waste applies to the spilled or leaked material.~~

~~16) In corresponding 40 CFR 261.38(b)(16), USEPA included the following disclaimer, which the Board quotes in full: “Nothing in this section preempts, overrides, or otherwise negates the provisions in CERCLA Section 103, which establish reporting obligations for releases of hazardous substances, or the Department of Transportation requirements for hazardous materials in 49 CFR parts 171 through 180.”~~

~~e) Failure to comply with the conditions of the exclusion. An excluded fuel loses its exclusion if any person managing the fuel fails to comply with the conditions of the exclusion under this Section, and the material must be managed as a hazardous waste from the point of generation. In such situations, USEPA, the Agency, or any person may take enforcement action pursuant to section 31 of the Act [415 ILCS 5/31].~~

~~BOARD NOTE: Corresponding 40 CFR 261.38(e) provides that USEPA or an authorized state may take enforcement action pursuant to section 3008(a) of RCRA (42 USC 6927(a)). In Illinois, Section 31(a) and (d) of the Act [415 ILCS 5/31(a) and (d)] provide that the Agency or any person may pursue an enforcement action for violation of the Act or Board regulations.~~

~~(Source: Repealed at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)~~

## SUBPART I: USE AND MANAGEMENT OF CONTAINERS

### Section 721.270 Applicability

This Subpart I applies to hazardous secondary materials excluded under the remanufacturing exclusion at Section 721.4(a)(27) and stored in containers.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 721.271 Condition of Containers**

If a container holding hazardous secondary material is not in good condition (e.g., the container has severe rusting, apparent structural defects, etc.) or if the container begins to leak, the hazardous secondary material must be transferred from this container to a container that is in good condition or managed in some other way that complies with the requirements of this Part.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 721.272 Compatibility of Hazardous Secondary Materials with Containers**

A container holding hazardous secondary material must be made of or lined with materials that will not react with, and are otherwise compatible with, the hazardous secondary material to be stored, so that the ability of the container to contain the material is not impaired.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 721.273 Management of Containers**

- a) A container holding hazardous secondary material must always be closed during storage, except when it is necessary to add or remove the hazardous secondary material.
- b) A container holding hazardous secondary material must not be opened, handled, or stored in a manner that may rupture the container or cause it to leak.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 721.275 Secondary Containment**

- a) Container storage areas must have a secondary containment system that is designed and operated in accordance with subsection (b).
- b) A secondary containment system must be designed and operated as follows:
  - 1) A base must underlie the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed;
  - 2) The base must be sloped or the secondary containment system must be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids;
  - 3) The secondary containment system must have sufficient capacity to contain ten percent of the volume of containers or the volume of the largest container, whichever is greater.

- 4) Run-on into the secondary containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in subsection (b)(3) to contain any run-on which might enter the system; and
- 5) Spilled or leaked material and accumulated precipitation must be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the secondary collection system.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.276 Special Requirements for Ignitable or Reactive Hazardous Secondary Material**

Containers holding ignitable or reactive hazardous secondary material must be located at least 15 meters (50 feet) from the facility's property line.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.277 Special Requirements for Incompatible Materials**

- a) Incompatible materials must not be placed in the same container.
- b) Hazardous secondary material must not be placed in an unwashed container that previously held an incompatible material.
- c) A storage container holding a hazardous secondary material that is incompatible with any other materials stored nearby must be separated from the other materials or protected from them by means of a dike, berm, wall, or other device.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.279 Air Emission Standards**

The remanufacturer or other person that stores or treats the hazardous secondary material must manage all hazardous secondary material placed in a container in accordance with the applicable requirements of Subparts AA, BB, and CC of this Part.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## **SUBPART J: TANK SYSTEMS**

### **Section 721.290 Applicability**

- a) The requirements of this Subpart J apply to tank systems for storing or treating hazardous secondary material excluded under the remanufacturing exclusion at Section 721.104(a)(27).

- b) Tank systems, including sumps, as defined in 35 Ill. Adm. Code 720.110, that serve as part of a secondary containment system to collect or contain releases of hazardous secondary materials are exempted from the requirements in Section 721.293(a).

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 721.291 Assessment of Existing Tank System's Integrity**

- a) A tank system must meet the secondary containment requirements of Section 721.293, or the remanufacturer or other person that handles the hazardous secondary material must determine that the tank system is not leaking or is unfit for use. Except as provided in subsection (c), a written assessment reviewed and certified by a qualified Professional Engineer must be kept on file at the remanufacturer's facility or other facility that stores or treats the hazardous secondary material that attests to the tank system's integrity.
- b) The qualified Professional Engineer's assessment must determine that the tank system is adequately designed and has sufficient structural strength and compatibility with the materials to be stored or treated, to ensure that the tank system will not collapse, rupture, or fail. At a minimum, this assessment must consider the following:
- 1) Design standards, if available, according to which the tank system and ancillary equipment were constructed;
  - 2) Hazardous characteristics of the materials that have been and will be handled;
  - 3) Existing corrosion protection measures;
  - 4) Documented age of the tank system, if available (otherwise, an estimate of the age); and
  - 5) Results of a leak test, internal inspection, or other tank system integrity examination such that:
    - A) For non-enterable underground tanks, the assessment must include a leak test that is capable of taking into account the effects of temperature variations, tank end deflection, vapor pockets, and high water table effects, and
    - B) For other than non-enterable underground tanks and for ancillary equipment, this assessment must include either a leak test, as described above, or other integrity examination that is certified by a qualified Professional Engineer that addresses cracks, leaks, corrosion, and erosion.

BOARD NOTE: The practices described in the American Petroleum Institute (API) Publication, Guide for Inspection of Refinery Equipment, Chapter XIII, "Atmospheric and Low-Pressure Storage Tanks," 4th edition, 1981, incorporated by reference in 35 Ill. Adm. Code 720.111, may be used, where applicable, as guidelines in conducting other than a leak test.

- c) If, as a result of the assessment conducted in accordance with subsection (a), a tank system is found to be leaking or unfit for use, the remanufacturer or other person that stores or treats the hazardous secondary material must comply with the requirements of Section 721.196.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.293 Containment and Detection of Releases**

- a) The following must be true of a secondary containment system:
- 1) The system is designed, installed, and operated to prevent any migration of materials or accumulated liquid out of the system to the soil, ground water, or surface water at any time during the use of the tank system; and
  - 2) The system is capable of detecting and collecting releases and accumulated liquids until the collected material is removed.

BOARD NOTE: If the collected material is a hazardous waste under this Part, the material is subject to management as a hazardous waste in accordance with all applicable requirements of 35 Ill. Adm. Code 722 through 728. If the collected material is discharged through a point source to waters of the United States, it is subject to the NPDES permit requirement of Section 12(f) of the Environmental Protection Act and 35 Ill. Adm. Code 309. If discharged to a Publicly Owned Treatment Works (POTW), it is subject to the requirements of 35 Ill. Adm. Code 307 and 310. If the collected material is released to the environment, it may be subject to the reporting requirements of 35 Ill. Adm. Code 750.410 and federal 40 CFR 302.6.

- b) To meet the requirements of subsection (a), a secondary containment system must fulfill the following requirements:
- 1) The secondary containment system must be constructed of or lined with materials that are compatible with the materials to be placed in the tank system and must have sufficient strength and thickness to prevent failure owing to pressure gradients (including static head and external hydrological forces), physical contact with the material to which it is exposed, climatic conditions, and the stress of daily operation (including stresses from nearby vehicular traffic);

- 2) The secondary containment system must be placed on a foundation or base capable of providing support to the secondary containment system, resistance to pressure gradients above and below the system, and capable of preventing failure due to settlement, compression, or uplift;
  - 3) The secondary containment system must be provided with a leak-detection system that is designed and operated so that the system will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous secondary material or accumulated liquid in the secondary containment system at the earliest practicable time; and
  - 4) The secondary containment system must be sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. Spilled or leaked material and accumulated precipitation must be removed from the secondary containment system in as timely a manner as is possible, but in no case later than 24 hours after the leak, spill, or accumulation of precipitation occurs, to prevent harm to human health and the environment.
- c) Secondary containment for tanks must include one or more of the following devices:
- 1) A liner (external to the tank);
  - 2) A vault; or
  - 3) A double-walled tank.
- d) In addition to the requirements of subsections (a), (b), and (c), secondary containment systems must satisfy the following requirements:
- 1) An external liner system must fulfill the following requirements:
    - A) The secondary containment system must be designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;
    - B) The secondary containment system must be designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. The additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event.
    - C) The secondary containment system must be free of cracks or gaps; and



D) The secondary containment system must be designed and installed to surround the tank completely and to cover all surrounding earth likely to come into contact with the material if the material is released from the tanks (i.e., capable of preventing lateral as well as vertical migration of the material).

2) A vault system must fulfill the following requirements:

A) The vault system must be designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

B) The vault system must be designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. The additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event;

C) The vault system must be constructed with chemical-resistant water stops in place at all joints (if any);

D) The vault system must be provided with an impermeable interior coating or lining that is compatible with the stored material and that will prevent migration of material into the concrete;

E) The vault system must be provided with a means to protect against the formation of and ignition of vapors within the vault, if the material being stored or treated is ignitable or reactive; and

F) The vault system must be provided with an exterior moisture barrier or be otherwise designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure.

3) A double-walled tank must fulfill the following requirements:

A) The double-walled tank must be designed as an integral structure (i.e., an inner tank completely enveloped within an outer shell) so that any release from the inner tank is contained by the outer shell;

B) The double-walled tank must be protected, if constructed of metal, from both corrosion of the primary tank interior and of the external surface of the outer shell; and

C) The double-walled tank must be provided with a built-in continuous leak detection system capable of detecting a release at the earliest practicable time, but in no case later than 24 hours after the release occurs.

BOARD NOTE: The provisions outlined in the Steel Tank Institute's (STI) "Standard for Dual Wall Underground Steel Storage Tanks," incorporated by reference in 35 Ill. Adm. Code 720.111, may be used as guidelines for aspects of the design of underground steel double-walled tanks.

- e) This subsection (e) corresponds with 40 CFR 261.194(e), which USEPA has marked "reserved." This statement maintains structural consistency with the corresponding federal regulations.
- f) Ancillary equipment must be provided with secondary containment (e.g., trench, jacketing, double-walled piping, etc.) that meets the requirements of subsections (a) and (b), except for the following equipment:
  - 1) Aboveground piping (exclusive of flanges, joints, valves, and other connections) that are visually inspected for leaks on a daily basis;
  - 2) Welded flanges, welded joints, and welded connections that are visually inspected for leaks on a daily basis;
  - 3) Seal-less or magnetic coupling pumps and seal-less valves that are visually inspected for leaks on a daily basis; and
  - 4) Pressurized aboveground piping systems with automatic shut-off devices (e.g., excess flow check valves, flow metering shutdown devices, loss of pressure actuated shut-off devices, etc.) that are visually inspected for leaks on a daily basis.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.294 General Operating Requirements**

- a) Hazardous secondary materials or treatment reagents must not be placed in a tank system if the materials or reagents could cause the tank, its ancillary equipment, or the containment system to rupture, leak, corrode, or otherwise fail.
- b) The remanufacturer or other person that stores or treats the hazardous secondary material must use appropriate controls and practices to prevent spills and overflows from tank or containment systems. These include, at a minimum, the following controls and practices:
  - 1) Spill prevention controls (e.g., check valves, dry disconnect couplings, etc.);
  - 2) Overfill prevention controls (e.g., level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank); and

- 3) Maintenance of sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind action or by precipitation.
- c) The remanufacturer or other person that stores or treats the hazardous secondary material must comply with the requirements of Section 721.196 if a leak or spill occurs in the tank system.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 721.296 Response to Leaks or Spills and Disposition of Leaking or Unfit-for-Use Tank Systems**

A tank system or secondary containment system from which there has been a leak or spill, or which is unfit for use, must be removed from service immediately, and the remanufacturer or other person that stores or treats the hazardous secondary material must satisfy the following requirements:

- a) Cessation of use; prevent flow or addition of materials. The remanufacturer or other person that stores or treats the hazardous secondary material must immediately stop the flow of hazardous secondary material into the tank system or secondary containment system and inspect the system to determine the cause of the release.
- b) Removal of material from tank system or secondary containment system.
- 1) If the release was from the tank system, the remanufacturer or other person that stores or treats the hazardous secondary material must, within 24 hours after detection of the leak or, if the remanufacturer or other person that stores or treats the hazardous secondary material demonstrates that it is not possible, at the earliest practicable time, remove as much of the material as is necessary to prevent further release of hazardous secondary material to the environment and to allow inspection and repair of the tank system to be performed.
- 2) If the material released was to a secondary containment system, all released materials must be removed within 24 hours or in as timely a manner as is possible to prevent harm to human health and the environment.
- c) Containment of visible releases to the environment. The remanufacturer or other person that stores or treats the hazardous secondary material must immediately conduct a visual inspection of the release and, based upon that inspection:
- 1) The remanufacturer must prevent further migration of the leak or spill to soils or surface water; and
- 2) The remanufacturer must remove, and properly dispose of, any visible contamination of the soil or surface water.

d) Notifications, reports.

- 1) Any release to the environment, except as provided in subsection (d)(2), must be reported to the Agency and the Administrator of USEPA Region 5 within 24 hours of its detection. If the release has been reported pursuant to 40 CFR 302, that report will satisfy the requirement to notify USEPA, but the release must still be reported to the Agency.
- 2) A leak or spill of hazardous secondary material is exempted from the requirements of this subsection (d) if the following is true of the leak or spill:
  - A) The leak or spill is less than or equal to a quantity of one pound; and
  - B) The leak or spill is immediately contained and cleaned up.
- 3) Within 30 days of detection of a release to the environment, a report containing the following information must be submitted to the Agency and the Administrator of USEPA Region 5:
  - A) The likely route of migration of the release;
  - B) The characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate);
  - C) The results of any monitoring or sampling conducted in connection with the release (if available). If sampling or monitoring data relating to the release are not available within 30 days, these data must be submitted to the Agency and the Administrator of USEPA Region 5: as soon as the results become available.
  - D) The proximity to downgradient drinking water, surface water, and populated areas; and
  - E) A description of response actions taken or planned.

e) Provision of secondary containment, repair, or closure.

- 1) Unless the remanufacturer or other person that stores or treats the hazardous secondary material satisfies the requirements of subsections (e)(2) through (e)(4), the tank system must cease to operate under the remanufacturing exclusion at Section 721.104(a)(27).
- 2) If the cause of the release was a spill that has not damaged the integrity of the tank system, the remanufacturer or other person that stores or treats the hazardous secondary material may return the tank system to service as

soon as the released material is removed and repairs, if necessary, are made.

- 3) If the cause of the release was a leak from the primary tank system into the secondary containment system, the primary tank system must be repaired prior to returning the tank system to service.
- 4) If the source of the release was a leak to the environment from a component of a tank system without secondary containment, the remanufacturer or other person that stores or treats the hazardous secondary material must provide the component of the tank system from which the leak occurred with secondary containment that satisfies the requirements of Section 721.193 before it can be returned to service, unless the source of the leak is an aboveground portion of a tank system that can be inspected visually. If the source is an aboveground component that can be inspected visually, the component must be repaired and may be returned to service without secondary containment as long as the requirements of subsection (f) are satisfied. Additionally, if a leak has occurred in any portion of a tank system component that is not readily accessible for visual inspection (e.g., the bottom of an inground or onground tank), the entire component must be provided with secondary containment in accordance with Section 721.193 prior to being returned to use.
- f) Certification of major repairs. If the remanufacturer or other person that stores or treats the hazardous secondary material has repaired a tank system in accordance with subsection (e), and the repair has been extensive (e.g., installation of an internal liner, repair of a ruptured primary containment or secondary containment vessel, etc.), the tank system must not be returned to service, unless the remanufacturer or other person that stores or treats the hazardous secondary material has obtained a certification by a qualified Professional Engineer that the repaired system is capable of handling hazardous secondary materials without release for the intended life of the system. This certification must be kept on file at the facility and maintained until closure of the facility.

BOARD NOTE: USEPA stated in note 1 appended to corresponding 40 CFR 261.196 that the Regional Administrator may, on the basis of any information received that there is or has been a release of hazardous secondary material or hazardous constituents into the environment, issue an order under RCRA section 7003(a) (42 USC 6973(a)) requiring corrective action or such other response as deemed necessary to protect human health or the environment. USEPA stated in note 2 appended to corresponding 40 CFR 261.196 that 40 CFR 302 may require the owner or operator to notify the National Response Center of certain releases.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 721.297 Termination of Remanufacturing Exclusion**

Hazardous secondary material stored in units more than 90 days after the unit ceases to operate under the remanufacturing exclusion at Section 721.4(a)(27) or otherwise ceases to be operated for manufacturing, or for storage of a product or a raw material, then becomes subject to regulation as hazardous waste under 35 Ill. Adm. Code 702, 703, 705, and 721 through 728, as applicable.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 721.298 Special Requirements for Ignitable or Reactive Materials**

- a) Ignitable or reactive material must not be placed in a tank system, unless the material is stored or treated in such a way that it is protected from any material or conditions that may cause the material to ignite or react.
- b) The remanufacturer or other person that stores or treats hazardous secondary material that is ignitable or reactive must store or treat the hazardous secondary material in a tank system that is in compliance with the requirements for the maintenance of protective distances between the material 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," incorporated by reference in 35 Ill. Adm. Code 720.111.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 721.299 Special Requirements for Incompatible Materials**

- a) Incompatible materials must not be placed together in the same tank system.
- b) Hazardous secondary material must not be placed in a tank system that has not been decontaminated and that previously held an incompatible material.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 721.300 Air Emission Standards**

The remanufacturer or other person that stores or treats the hazardous secondary material must manage all hazardous secondary material placed in a tank in accordance with the applicable requirements of Subparts AA, BB, and CC of this Part.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**SUBPART M: EMERGENCY PREPAREDNESS AND RESPONSE FOR  
MANAGEMENT OF EXCLUDED HAZARDOUS SECONDARY MATERIALS**

**Section 721.500 Applicability**

The requirements of this Subpart M apply to those areas of an entity managing hazardous secondary materials excluded under Section 721.104(a)(23) or (a)(24) where hazardous secondary materials are generated or accumulated on site.

- a) A generator of hazardous secondary material, or an intermediate or reclamation facility operating under a solid waste determination under Section 720.131(d), that accumulates 6,000 kg or less of hazardous secondary material at any time must comply with Sections 721.510 and 261.511.
- b) A generator of hazardous secondary material, or an intermediate or reclamation facility operating under a solid waste determination under Section 720.131(d) that accumulates more than 6,000 kg of hazardous secondary material at any time must comply with Sections 721.510 and 261.520.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 721.510 Preparedness and Prevention**

- a) Maintenance and operation of facility. Facilities generating or accumulating hazardous secondary material must be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous secondary materials or hazardous secondary material constituents to air, soil, or surface water which could threaten human health or the environment.
- b) Required equipment. All facilities generating or accumulating hazardous secondary material must be equipped with the following, unless none of the hazards posed by hazardous secondary material handled at the facility could require a particular kind of equipment specified below:
  - 1) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;
  - 2) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or state or local emergency response teams;
  - 3) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and

- 4) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.
- c) Testing and maintenance of equipment. All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.
- d) Access to communications or alarm system.
  - 1) Whenever hazardous secondary material is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required under subsection (b).
  - 2) If there is ever just one employee on the premises while the facility is operating, he or she must have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, unless such a device is not required under subsection (b).
- e) Required aisle space. The hazardous secondary material generator or intermediate or reclamation facility operating under a solid waste determination under 35 Ill. Adm. Code 720.131(d) must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.
- f) Arrangements with local authorities.
  - 1) The hazardous secondary material generator or an intermediate or reclamation facility operating under a solid waste determination under 35 Ill. Adm. Code 720.131(d) must attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations:
    - A) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous secondary material handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes;
    - B) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and



agreements with any others to provide support to the primary emergency authority;

- C) Agreements with state emergency response teams, emergency response contractors, and equipment suppliers; and
- D) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

- 2) Where state or local authorities decline to enter into such arrangements, the hazardous secondary material generator or an intermediate or reclamation facility operating under a solid waste determination under 35 Ill. Adm. Code 720.131(d) must document the refusal in the operating record.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.511 Emergency Procedures for Facilities Generating or Accumulating 6000 kg or Less of Hazardous Secondary Material**

A generator or an intermediate or reclamation facility operating under a verified recycler variance under 35 Ill. Adm. Code 720.131(d) that generates or accumulates 6,000 kg or less of hazardous secondary material must comply with the following requirements:

- a) At all times there must be at least one employee either on the premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures specified in subsection (d). This employee is the emergency coordinator.
- b) The generator or intermediate or reclamation facility operating under a verified recycler variance under 35 Ill. Adm. Code 720.131(d) must post the following information next to the telephone:
  - 1) The name and telephone number of the emergency coordinator;
  - 2) Location of fire extinguishers and spill control material, and, if present, fire alarm; and
  - 3) The telephone number of the fire department, unless the facility has a direct alarm.
- c) The generator or an intermediate or reclamation facility operating under a verified recycler variance under 35 Ill. Adm. Code 720.131(d) must ensure that all employees are thoroughly familiar with proper waste handling and emergency

procedures, relevant to their responsibilities during normal facility operations and emergencies;

- d) The emergency coordinator or his designee must respond to any emergencies that arise. The applicable responses are as follows:
- 1) In the event of a fire, call the fire department or attempt to extinguish it using a fire extinguisher;
  - 2) In the event of a spill, contain the flow of hazardous waste to the extent possible, and as soon as is practicable, clean up the hazardous waste and any contaminated materials or soil;
  - 3) In the event of a fire, explosion, or other release which could threaten human health outside the facility or when the generator or an intermediate or reclamation facility operating under a solid waste determination under 35 Ill. Adm. Code 720.131(d) has knowledge that a spill has reached surface water, the generator or an intermediate or reclamation facility operating under a solid waste determination under 35 Ill. Adm. Code 720.131(d) must immediately notify the National Response Center (using their 24-hour toll free number 800-424-8802). The report must include the following information:
    - A) The name, address, and USEPA identification number of the facility;
    - B) The date, time, and type of incident (e.g., spill or fire);
    - C) The quantity and type of hazardous waste involved in the incident;
    - D) The extent of injuries, if any; and
    - E) The estimated quantity and disposition of recovered materials, if any.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 721.520 Contingency Planning and Emergency Procedures for Facilities Generating or Accumulating More Than 6000 kg of Hazardous Secondary Material**

A generator or an intermediate or reclamation facility operating under a verified recycler variance under 35 Ill. Adm. Code 720.131(d) that generates or accumulates more than 6,000 kg of hazardous secondary material must comply with the following requirements:

- a) Purpose and implementation of contingency plan.
  - 1) Each generator or an intermediate or reclamation facility operating under a solid waste determination under 35 Ill. Adm. Code 720.131(d) that

accumulates more than 6,000 kg of hazardous secondary material must have a contingency plan for his facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous secondary material or hazardous secondary material constituents to air, soil, or surface water.

- 2) The provisions of the contingency plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous secondary material or hazardous secondary material constituents that could threaten human health or the environment.

b) Content of contingency plan.

- 1) The contingency plan must describe the actions facility personnel must take to comply with subsections (a) and (f) in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous secondary material or hazardous secondary material constituents to air, soil, or surface water at the facility.
- 2) If the generator or an intermediate or reclamation facility operating under a solid waste determination under 35 Ill. Adm. Code 720.131(d) accumulating more than 6,000 kg of hazardous secondary material has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with 40 CFR 112, or some other emergency or contingency plan, the facility needs only amend that plan to incorporate hazardous secondary material management provisions that are sufficient to comply with the requirements of this Part. The hazardous secondary material generator or an intermediate or reclamation facility operating under a verified recycler variance under 35 Ill. Adm. Code 720.131(d) may develop one contingency plan which meets all regulatory requirements. When modifications are made to non-RCRA provisions in an integrated contingency plan, the changes do not trigger the need for a RCRA permit modification.

BOARD NOTE: USEPA has recommended that the contingency plan be based on the National Response Team's Integrated Contingency Plan Guidance ("One Plan").
- 3) The contingency plan must describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to 35 Ill. Adm. Code 722.510(f).
- 4) The contingency plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see subsection (e)), and this list must be kept up-to-date. Where more than one person is listed, one must be named as primary emergency

coordinator and others must be listed in the order in which they will assume responsibility as alternates.

- 5) The contingency plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each emergency equipment item on the list, and a brief outline of its capabilities.
  - 6) The contingency plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This evacuation plan must describe signals to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous secondary material or fires).
- c) Copies of contingency plan. The facility owner or operator must do as follows with the contingency plan and all revisions to the plan:
- 1) Maintain a copy at the facility; and
  - 2) Submit a copy to every local police department, fire department, hospital, and State and local emergency response team that may be called upon to provide emergency services.
- d) Amendment of contingency plan. The facility owner or operator must review and immediately amend its contingency plan, if necessary, whenever any of the following occurs:
- 1) Applicable regulations are revised;
  - 2) The plan fails in an emergency;
  - 3) The facility changes—in its design, construction, operation, maintenance, or other circumstances—in a way that materially increases the potential for fires, explosions, or releases of hazardous secondary material or hazardous secondary material constituents, or the facility changes the response necessary in an emergency;
  - 4) The list of emergency coordinators changes; or
  - 5) The list of emergency equipment changes.
- e) Emergency coordinator. At all times, there must be at least one employee, either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time), with the responsibility for

coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of hazardous secondary materials handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan. The emergency coordinator's responsibilities are more fully spelled out in subsection (f). Applicable responsibilities for the emergency coordinator vary, depending on factors such as type and variety of hazardous secondary materials handled by the facility, and type and complexity of the facility.

f) Emergency procedures.

- 1) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) must immediately:
  - A) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and
  - B) Notify appropriate State or local agencies with designated response roles if their help is needed.
- 2) Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and areal extent of any released materials. The emergency coordinator may do this by observation or review of facility records or manifests and, if necessary, by chemical analysis.
- 3) Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-offs from water or chemical agents used to control fire and heat-induced explosions).
- 4) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, the emergency coordinator must report his findings as follows:
  - A) If The emergency coordinator's assessment indicates that evacuation of local areas may be advisable, the emergency coordinator must immediately notify appropriate local authorities. The emergency coordinator must be available to help appropriate officials decide whether local areas should be evacuated; and

- B) The emergency coordinator must immediately notify either the government official designated as the on-scene coordinator for that geographical area, or the National Response Center (using their 24-hour toll free number 800-424-8802). The report must include the following information:
- i) The name and telephone number of reporter;
  - ii) The name and address of facility;
  - iii) The time and type of incident (e.g., release, fire);
  - iv) The name and quantity of materials involved, to the extent known;
  - v) The extent of injuries, if any; and
  - vi) The possible hazards to human health, or the environment, outside the facility.
- 5) During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous secondary material at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released material, and removing or isolating containers.
- 6) If the facility stops operations in response to a fire, explosion or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.
- 7) Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered secondary material, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility. Unless the hazardous secondary material generator can demonstrate, in accordance with Section 721.103(c) or (d), that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage the recovered material in accordance with all applicable requirements of 35 Ill. Adm. Code 722, 723, and 725.
- 8) The emergency coordinator must ensure that the following has occurred in the affected areas of the facility:
- A) No secondary material that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and

- B) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.
- 9) The hazardous secondary material generator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, the emergency coordinator must submit a written report on the incident to the Regional Administrator. The report must include the following information:
- A) The name, address, and telephone number of the hazardous secondary material generator;
  - B) The name, address, and telephone number of the facility;
  - C) The date, time, and type of incident (e.g., fire, explosion, etc.);
  - D) The name and quantity of materials involved;
  - E) The extent of injuries, if any;
  - F) An assessment of actual or potential hazards to human health or the environment, where this is applicable; and
  - G) The estimated quantity and disposition of recovered material that resulted from the incident.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART AA: AIR EMISSION STANDARDS FOR PROCESS VENTS

##### **Section 721.930 Applicability**

The regulations in this Subpart AA apply to process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or stream stripping operations that manage hazardous secondary materials excluded under the remanufacturing exclusion at Section 721.104(a)(27) with organic concentrations of at least 10 ppmw (parts per million by weight), unless the process vents are equipped with 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.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

##### **Section 721.931 Definitions**

As used in this Subpart AA, all terms not defined herein will have the meaning given them in the Resource Conservation and Recovery Act and 35 Ill. Adm. Code 720 through 726.

“Air stripping operation” is a desorption operation employed to transfer one or more volatile components from a liquid mixture into a gas (air) either with or without the application of heat to the liquid. Packed towers, spray towers, and bubble-cap, sieve, or valve-type plate towers are among the process configurations used for contacting the air and a liquid.

“Bottoms receiver” means a container or tank used to receive and collect the heavier bottoms fractions of the distillation feed stream that remain in the liquid phase.

“Closed-vent system” means a system that is not open to the atmosphere and that is composed of piping, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device.

“Condenser” means a heat-transfer device that reduces a thermodynamic fluid from its vapor phase to its liquid phase.

“Connector” means flanged, screwed, welded, or other joined fittings used to connect two pipelines or a pipeline and a piece of equipment. For the purposes of reporting and recordkeeping, connector means flanged fittings that are not covered by insulation or other materials that prevent location of the fittings.

“Continuous recorder” means a data-recording device recording an instantaneous data value at least once every 15 minutes.

“Control device” means an enclosed combustion device, vapor recovery system, or flare. Any device the primary function of which is the recovery or capture of solvents or other organics for use, reuse, or sale (e.g., a primary condenser on a solvent recovery unit) is not a control device.

“Control device shutdown” means the cessation of operation of a control device for any purpose.

“Distillate receiver” means a container or tank used to receive and collect liquid material (condensed) from the overhead condenser of a distillation unit and from which the condensed liquid is pumped to larger storage tanks or other process units.

“Distillation operation” means an operation, either batch or continuous, separating one or more feed streams into two or more exit streams, each exit stream having component concentrations different from those in the feed streams. The separation is achieved by the redistribution of the components between the liquid and vapor phase as they approach equilibrium within the distillation unit.

“Double block and bleed system” means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.



“Equipment” means each valve, pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, or flange or other connector, and any control devices or systems required by this Subpart AA.

“Flame zone” means the portion of the combustion chamber in a boiler occupied by the flame envelope.

“Flow indicator” means a device that indicates whether gas flow is present in a vent stream.

“First attempt” at repair means to take rapid action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.

“Fractionation operation” means a distillation operation or method used to separate a mixture of several volatile components of different boiling points in successive stages, each stage removing from the mixture some proportion of one of the components.

“Hazardous secondary material management unit shutdown” means a work practice or operational procedure that stops operation of a hazardous secondary material management unit or part of a hazardous secondary material management unit. An unscheduled work practice or operational procedure that stops operation of a hazardous secondary material management unit or part of a hazardous secondary material management unit for less than 24 hours is not a hazardous secondary material management unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping operation are not hazardous secondary material management unit shutdowns.

“Hot well” means a container for collecting condensate as in a steam condenser serving a vacuum-jet or steam-jet ejector.

“In gas/vapor service” means that the piece of equipment contains or contacts a hazardous secondary material stream that is in the gaseous state at operating conditions.

“In heavy liquid service” means that the piece of equipment is not in gas/vapor service or in light liquid service.

“In light liquid service” means that the piece of equipment contains or contacts a material stream where the vapor pressure of one or more of the organic components in the stream is greater than 0.3 kilopascals (kPa) at 20° C, the total concentration of the pure organic components having a vapor pressure greater than 0.3 kilopascals (kPa) at 20° C is equal to or greater than 20 percent by weight, and the fluid is a liquid at operating conditions.

“In situ sampling systems” means non-extractive samplers or in-line samplers.

“In vacuum service” means that equipment is operating at an internal pressure that is at least 5 kPa below ambient pressure.

“Malfunction” means any sudden failure of a control device or a hazardous secondary material management unit or failure of a hazardous secondary material management unit to operate in a normal or usual manner, so that organic emissions are increased.

“Open-ended valve or line” means any valve, except pressure relief valves, having one side of the valve seat in contact with hazardous secondary material and one side open to the atmosphere, either directly or through open piping.

“Pressure release” means the emission of materials resulting from the system pressure being greater than the set pressure of the pressure relief device.

“Process heater” means a device that transfers heat liberated by burning fuel to fluids contained in tubes, including all fluids except water that are heated to produce steam.

“Process vent” means any open-ended pipe or stack that is vented to the atmosphere either directly, through a vacuum-producing system, or through a tank (e.g., distillate receiver, condenser, bottoms receiver, surge control tank, separator tank, or hot well) associated with hazardous secondary material distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations.

“Repaired” means that equipment is adjusted, or otherwise altered, to eliminate a leak.

“Sampling connection system” means an assembly of equipment within a process or material management unit used during periods of representative operation to take samples of the process or material fluid. Equipment used to take non-routine grab samples is not considered a sampling connection system.

“Sensor” means a device that measures a physical quantity or the change in a physical quantity, such as temperature, pressure, flow rate, pH, or liquid level.

“Separator tank” means a device used for separation of two immiscible liquids.

“Solvent extraction operation” means an operation or method of separation in which a solid or solution is contacted with a liquid solvent (the two being mutually insoluble) to preferentially dissolve and transfer one or more components into the solvent.

“Startup” means the setting in operation of a hazardous secondary material management unit or control device for any purpose.

“Steam stripping operation” means a distillation operation in which vaporization of the volatile constituents of a liquid mixture takes place by the introduction of steam directly into the charge.

“Surge control tank” means a large-sized pipe or storage reservoir sufficient to contain the surging liquid discharge of the process tank to which it is connected.

“Thin-film evaporation operation” means a distillation operation that employs a heating surface consisting of a large diameter tube that may be either straight or tapered, horizontal or vertical. Liquid is spread on the tube wall by a rotating assembly of blades that maintain a close clearance from the wall or actually ride on the film of liquid on the wall.

“Vapor incinerator” means any enclosed combustion device that is used for destroying organic compounds and does not extract energy in the form of steam or process heat.

“Vented” means discharged through an opening, typically an open-ended pipe or stack, allowing the passage of a stream of liquids, gases, or fumes into the atmosphere. The passage of liquids, gases, or fumes is caused by mechanical means such as compressors or vacuum-producing systems or by process-related means such as evaporation produced by heating and not caused by tank loading and unloading (working losses) or by natural means such as diurnal temperature changes.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.932 Standards: Process Vents**

- a) The remanufacturer or other person that stores or treats hazardous secondary materials in hazardous secondary material management units with process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations managing hazardous secondary material with organic concentrations of at least 10 ppmw must either:
  - 1) Reduce total organic emissions from all affected process vents at the facility below 1.4 kg/h (3 lb/h) and 2.8 Mg/yr (3.1 tons/yr), or
  - 2) Reduce, by use of a control device, total organic emissions from all affected process vents at the facility by 95 weight percent.
- b) If the remanufacturer or other person that stores or treats the hazardous secondary material installs a closed-vent system and control device to comply with the provisions of subsection (a) the closed-vent system and control device must meet the requirements of Section 721.933.
- c) Determinations of vent emissions and emission reductions or total organic compound concentrations achieved by add-on control devices may be based on

engineering calculations or performance tests. If performance tests are used to determine vent emissions, emission reductions, or total organic compound concentrations achieved by add-on control devices, the performance tests must conform with the requirements of Section 721.934(c).

- d) When a remanufacturer or other person that stores or treats the hazardous secondary material and the Agency do not agree on determinations of vent emissions or emission reductions or total organic compound concentrations achieved by add-on control devices based on engineering calculations, the procedures in Section 721.934(c) must be used to resolve the disagreement. The Agency must state any disagreement on a determination of vent emissions or emission reductions in writing to the remanufacturer or other person that stores or treats the hazardous secondary material.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.933 Standards: Closed-Vent Systems and Control Devices**

- a) Applicability.
- 1) The remanufacturer or other person that stores or treats the hazardous secondary materials in hazardous secondary material management units using closed-vent systems and control devices used to comply with provisions of this Part must comply with the provisions of this Section.
  - 2) This subsection (a)(2) corresponds with 40 CFR 261.1033, which USEPA has marked “reserved.” This statement maintains structural consistency with the federal regulations.
- 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 721.932(a)(1) for all affected process vents can be 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 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 five minutes during any two 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).
  - 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 non-assisted. The net heating value of the gas being combusted must be determined by the methods specified in subsection (e)(2).
  - 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), less than 18.3 m/s (60 ft/s), except as provided in subsections (d)(4)(B) and (C).
    - B) A steam-assisted or non-assisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3), 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 (1,000 Btu/scf).
    - C) A steam-assisted or non-assisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3), less than the velocity,  $V_{max}$ , 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,  $V_{max}$ , as determined by the method specified in subsection (e)(5).
  - 6) A flare used to comply with this section must be steam-assisted, air-assisted, or unassisted.
- e) Compliance determination and equations.
- 1) Reference Method 22 (Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares) in appendix A to 40 CFR 60 (Test Methods), 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 AA. The observation period is two 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:

$$H_T = K \left[ \sum_{i=1}^n C_i H_i \right]$$

Where:

$H_T$  = Net heating value of the sample, 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 one mol is 20° C;

$K$  = Constant,  $1.74 \times 10^{-7}$  (1/ppm) (g mol/scm) (MJ/kcal) where standard temperature for (g mol/scm) is 20° C;

$C_i$  = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 (Measurement of Gaseous Organic Compound Emissions by Gas Chromatography) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111, and measured for hydrogen and carbon monoxide by ASTM D 1946-90, incorporated by reference in Section 720.111; and

$H_i$  = Net heat of combustion of sample component i, kcal/g mol at 25° C and 760 mm Hg. The heats of combustion may be determined using ASTM D 2382-83, incorporated by reference in Section 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 (Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)), 2A (Direct Measurement of Gas Volume through Pipes and Small Ducts), 2C (Determination of Gas Velocity and Volumetric Flow Rate in Small Stacks or Ducts (Standard Pitot Tube)), or 2D (Measurement of Gas Volume Flow Rates in Small Pipes and Ducts) in appendix A to 40 CFR 60 (Test Methods), each 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:

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

Where:

28.8 = Constant,

31.7 = Constant,

HT = 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:

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

Where:

8.706 = Constant,

0.7084 = Constant,

$H_T$  = The net heating value as determined in subsection (e)(2).

- f) The remanufacturer or other person that stores or treats the hazardous secondary material must 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 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 an accuracy of  $\pm 1$  percent 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  $\pm 1$  percent 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  $\pm 1$  percent 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 a parameters that indicates 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  $\pm 1$  percent 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 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) A remanufacturer or other person that stores or treats hazardous secondary material in a hazardous secondary material management unit using a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device must 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 721.935(b)(4)(C)(vi).
- h) A remanufacturer or other person that stores or treats hazardous secondary material in a hazardous secondary material management unit using a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device must 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 percent of the time required to consume the total carbon working capacity established as a requirement of Section 721.935(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 721.935(b)(4)(C)(vii).
- i) An alternative operational or process parameter may be monitored if it can be demonstrated that another parameter will ensure that the control device is operated in conformance with these standards and the control device's design specifications.
- j) A remanufacturer or other person that stores or treats hazardous secondary material at 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 procedure in Section 721.934(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 remanufacturer or other person that stores or treats the hazardous secondary material must 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) must be inspected and monitored in accordance with the following requirements:
    - A) An initial leak detection monitoring of the closed-vent system must be conducted by the remanufacturer or other person that stores or treats the hazardous secondary material on or before the date that the system becomes subject to this section. The remanufacturer or other person that stores or treats the hazardous secondary material must monitor the closed-vent system components and connections using the procedures specified in Section 721.934(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 (l)(1)(A), the remanufacturer or other person that stores or treats the hazardous secondary material must 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 remanufacturer or other person that stores or treats the hazardous secondary material must

monitor a component or connection using the procedures specified in Section 721.934(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 (l)(1)(B)(i) must be monitored annually and at other times as requested by the Agency, except as provided for in subsection (o), using the procedures specified in Section 721.934(b) to demonstrate that the components or connections operate with no detectable emissions. The Agency must make any request for monitoring in writing to the remanufacturer or other person that stores or treats the hazardous secondary material.
  - C) In the event that a defect or leak is detected, the remanufacturer or other person that stores or treats the hazardous secondary material must repair the defect or leak in accordance with the requirements of subsection (l)(3).
  - D) The remanufacturer or other person that stores or treats the hazardous secondary material must maintain a record of the inspection and monitoring in accordance with the requirements specified in Section 721.935.
- 2) Each closed-vent system that is used to comply with subsection (k)(2) must be inspected and monitored in accordance with the following requirements:
- A) The closed-vent system must be visually inspected by the remanufacturer or other person that stores or treats the hazardous secondary material 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 remanufacturer or other person that stores or treats the hazardous secondary material must perform an initial inspection of the closed-vent system on or before the date that the system becomes subject to this Section. Thereafter, the remanufacturer or other person that stores or treats the hazardous secondary material must perform the inspections at least once every year.
  - C) In the event that a defect or leak is detected, the remanufacturer or other person that stores or treats the hazardous secondary material

must repair the defect in accordance with the requirements of subsection (1)(3).

- D) The remanufacturer or other person that stores or treats the hazardous secondary material must maintain a record of the inspection and monitoring in accordance with the requirements specified in Section 721.935.
- 3) The remanufacturer or other person that stores or treats the hazardous secondary material must 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 (1)(3)(C).
- B) A first attempt at repair must be made no later than 5 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 remanufacturer or other person that stores or treats the hazardous secondary material 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 remanufacturer or other person that stores or treats the hazardous secondary material must maintain a record of the defect repair in accordance with the requirements specified in Section 721.935.
- m) Closed-vent systems and control devices used to comply with provisions of this Subpart AA must be operated at all times when emissions may be vented to them.
- n) The owner or operator using a carbon adsorption system to control air pollutant emissions must document that all carbon that is a hazardous waste and that is removed from the control device is managed in one of the following manners, regardless of the average volatile organic concentration of the carbon:
- 1) 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 Subpart X of this Part;

- B) The unit is equipped with and operating air emission controls in accordance with the applicable requirements of Subparts AA and CC of this Part or Subparts AA and CC of 35 Ill. Adm. Code 725; 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 (National Emission Standards for Hazardous Air Pollutants) or 40 CFR 63 (National Emission Standards for Hazardous Air Pollutants for Source Categories), each incorporated by reference in 35 Ill. Adm. Code 720.111(b).
- 2) Incinerated in a hazardous waste incinerator for which the owner or operator either:
- A) Has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart O of this Part; or
  - B) Has designed and operates the incinerator in accordance with the interim status requirements of Subpart O of 35 Ill. Adm. Code 725.
- 3) Burned in a boiler or industrial furnace for which the owner or operator either:
- A) Has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart H of 35 Ill. Adm. Code 726; or
  - B) Has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of Subpart H of 35 Ill. Adm. Code 726.
- o) Any components of a closed-vent system that are designated, as described in Section 721.935(c)(9), as unsafe to monitor are exempt from the requirements of subsection (l)(1)(B)(ii) if both of the following conditions are fulfilled:
- 1) The remanufacturer or other person that stores or treats the hazardous secondary material in a hazardous secondary material management unit using a closed-vent system determines 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 (l)(1)(B)(ii); and
  - 2) The remanufacturer or other person that stores or treats the hazardous secondary material in a hazardous secondary material management unit using a 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: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.934 Test Methods and Procedures**

- a) Each remanufacturer or other person that stores or treats the hazardous secondary material subject to the provisions of this Subpart AA must comply with the test methods and procedural requirements provided in this Section.
- b) When a closed-vent system is tested for compliance with no detectable emissions, as required in Section 721.933(l) of this Subpart AA, the test must comply with the following requirements:
  - 1) Monitoring must comply with Reference Method 21 (Determination of Volatile Organic Compound Leaks) in appendix A to 40 CFR 60 (Test Methods), 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 721.932(a) and with the total organic compound concentration limit of Section 721.933(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) Reference Method 2 (Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111 for velocity and volumetric flow rate.
- B) Reference Method 18 (Measurement of Gaseous Organic Compound Emissions by Gas Chromatography) or Reference Method 25A (Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111, for organic content. If Reference Method 25A is used, the organic HAP used as the calibration gas must be the single organic HAP representing the largest percent by volume of the emissions. The use of Reference Method 25A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.
- C) Each performance test must consist of three separate runs; each run conducted for at least one hour under the conditions that exist when the hazardous secondary material 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 must apply. The average must be computed on a time-weighted basis.
- D) Total organic mass flow rates must be determined by the following equation:
- i) For sources utilizing Reference Method 18.

$$E_{2sd} \left\{ \sum_{i=1}^n C_i MW_i \right\} [0.0416][10^{-6}]$$

Where:

$E_h$  = Total organic mass flow rate, kg/h;

$Q_{2sd}$  = Volumetric flow rate of gases entering or exiting control device, as determined by Reference Method 2, dscm/h;

n = Number of organic compounds in the vent gas;

C<sub>i</sub> = Organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Reference Method 18;

MW<sub>i</sub> = Molecular weight of organic compound i in the vent gas, kg/kg-mol;

0.0416 = Conversion factor for molar volume, kg-mol/m<sup>3</sup> (@293° K and 760 mm Hg);

10<sup>-6</sup> = Conversion from ppm

ii) For sources utilizing Reference Method 25A.

$$\underline{E_h = (Q)(C)(MW)(0.0416)(10^{-6})}$$

Where:

E<sub>h</sub> = Total organic mass flow rate, kg/h;

Q = Volumetric flow rate of gases entering or exiting control device, as determined by Reference Method 2, dscm/h;

C = Organic concentration in ppm, dry basis, as determined by Reference Method 25A;

MW = Molecular weight of propane, 44;

0.0416 = Conversion factor for molar volume, kg-mol/m<sup>3</sup> (@293° K and 760 mm Hg);

10<sup>-6</sup> = Conversion from ppm.

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

$$\underline{E_A = (E_h)(H)}$$

Where:

E<sub>A</sub> = Total organic mass emission rate, kg/y;

E<sub>h</sub> = Total organic mass flow rate for the process vent, kg/h;

H = Total annual hours of operations for the affected unit, h.



- F) Total organic emissions from all affected process vents at the facility must be determined by summing the hourly total organic mass emission rates ( $E_h$ , as determined in subsection (c)(1)(F)) and by summing the annual total organic mass emission rates ( $E_A$ , as determined in subsection (c)(1)(E)) for all affected process vents at the facility.
- 2) The remanufacturer or other person that stores or treats the hazardous secondary material must record such process information as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction must not constitute representative conditions for the purpose of a performance test.
- 3) The remanufacturer or other person that stores or treats the hazardous secondary material at an affected facility must provide, or cause to be provided, performance testing facilities, as follows:
- A) Sampling ports adequate for the test methods specified in subsection (c)(1).
- B) Safe sampling platforms.
- C) Safe access to sampling platforms.
- 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 control of the remanufacturer or other person that stores or treats the hazardous secondary material, the Agency may approve compliance determination using the average of the results of the two other runs. The Agency must state any approval or disapproval of a compliance determination in writing to the remanufacturer or other person that stores or treats the hazardous secondary material.
- d) To show that a process vent associated with a hazardous secondary material distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation is not subject to the requirements of this Subpart AA, the remanufacturer or other person that stores or treats the hazardous secondary material must make an initial determination that the time-weighted, annual average total organic concentration of the material managed by the hazardous secondary material management unit is less than 10 ppmw using one of the following two methods:

- 1) Direct measurement of the organic concentration of the material using the following procedures:
  - A) The remanufacturer or other person that stores or treats the hazardous secondary material must take a minimum of four grab samples of material for each material stream managed in the affected unit under process conditions expected to cause the maximum material organic concentration.
  - B) For material generated onsite, the grab samples must be collected at a point before the material is exposed to the atmosphere such as in an enclosed pipe or other closed system that is used to transfer the material after generation to the first affected distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation. For material generated offsite, the grab samples must be collected at the inlet to the first material management unit that receives the material provided the material has been transferred to the facility in a closed system such as a tank truck and the material is not diluted or mixed with other material.
  - C) Each sample must be analyzed and the total organic concentration of the sample must be computed using Method 9060A of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, or analyzed for its individual organic constituents.
  - D) The arithmetic mean of the results of the analyses of the four samples must apply for each material stream managed in the unit in determining the time-weighted, annual average total organic concentration of the material. The time-weighted average is to be calculated using the annual quantity of each material stream processed and the mean organic concentration of each material stream managed in the unit.
- 2) Using knowledge of the material to determine that its total organic concentration is less than 10 ppmw. Documentation of the material determination 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 material 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 material stream having a total organic content less than 10 ppmw, or prior speciation analysis results on the same material stream where it can also be documented that

no process changes have occurred since that analysis that could affect the material total organic concentration.

- e) The determination that distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations manage hazardous secondary materials 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 AA or by the date when the material is first managed in a hazardous secondary material management unit, whichever is later, and
  - 2) For continuously generated material, annually, or
  - 3) Whenever there is a change in the material being managed or a change in the process that generates or treats the material.
- f) When a remanufacturer or other person that stores or treats the hazardous secondary material 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 secondary material with organic concentrations of at least 10 ppmw based on knowledge of the material, the dispute may be resolved by using direct measurement, as specified at subsection (d)(1). The Agency must state any disagreement in writing to the remanufacturer or other person that stores or treats the hazardous secondary material.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.935 Recordkeeping Requirements**

- a) Compliance Required.
- 1) Each remanufacturer or other person that stores or treats the hazardous secondary material subject to the provisions of this Subpart AA must comply with the recordkeeping requirements of this Section.
  - 2) A remanufacturer or other person that stores or treats the hazardous secondary material of more than one hazardous secondary material management unit subject to the provisions of this Subpart AA may comply with the recordkeeping requirements for these hazardous secondary material management units in one recordkeeping system if the system identifies each record by each hazardous secondary material management unit.
- b) The remanufacturer or other person that stores or treats the hazardous secondary material must keep the following records on-site:

- 1) For facilities that comply with the provisions of Section 721.933(a)(2), an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The schedule must also include a rationale of why the installation cannot be completed at an earlier date. The implementation schedule must be kept on-site at the facility by the effective date that the facility becomes subject to the provisions of this Subpart AA.
  
- 2) Up-to-date documentation of compliance with the process vent standards in Section 721.932, including the following:
  - A) Information and data identifying all affected process vents, annual throughput and operating hours of each affected unit, estimated emission rates for each affected vent and for the overall facility (i.e., the total emissions for all affected vents at the facility), and the approximate location within the facility of each affected unit (e.g., identify the hazardous secondary material management units on a facility plot plan).
  
  - B) Information and data supporting determinations of vent emissions and emission reductions achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, determinations of vent emissions and emission reductions must be made using operating parameter values (e.g., temperatures, flow rates, or vent stream organic compounds and concentrations) that represent the conditions that result in maximum organic emissions, such as when the hazardous secondary material management unit is operating at the highest load or capacity level reasonably expected to occur. If the remanufacturer or other person that stores or treats the hazardous secondary material takes any action (e.g., managing a material of different composition or increasing operating hours of affected hazardous secondary material management units) that would result in an increase in total organic emissions from affected process vents at the facility, then a new determination is required.
  
- 3) Where a remanufacturer or other person that stores or treats the hazardous secondary material chooses to use test data to determine the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan must be developed and include the following:
  - A) A description of how it is determined that the planned test is going to be conducted when the hazardous secondary material management unit is operating at the highest load or capacity level reasonably expected to occur. This must include the estimated or design flow rate and organic content of each vent stream and

define the acceptable operating ranges of key process and control device parameters during the test program.

- B) A detailed engineering description of the closed-vent system and control device including the following:
- i) Manufacturer's name and model number of control device.
  - ii) Type of control device.
  - iii) Dimensions of the control device.
  - iv) Capacity.
  - v) Construction materials.
- C) 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 planned analytical procedures for sample analysis.
- 4) Documentation of compliance with Section 721.933 must include the following information:
- A) A list of all information references and sources used in preparing the documentation.
- B) Records, including the dates, of each compliance test required by Section 721.933(k).
- C) If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions," incorporated by reference as specified in 35 Ill. Adm. Code 720.111, or other engineering texts acceptable to the Agency that present basic control device design information. Documentation provided by the control device manufacturer or vendor that describes the control device design in accordance with subsections (b)(4)(C)(i) through (b)(4)(C)(G) may be used to comply with this requirement. The design analysis must address the vent stream characteristics and control device operation parameters, as specified below. The Agency must state whether or not the other engineering texts are acceptable or unacceptable in writing to the remanufacturer or other person that stores or treats the hazardous secondary material.
- i) For a thermal vapor incinerator, the design analysis must consider the vent stream composition, constituent

- concentrations, and flow rate. The design analysis must also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.
- ii) For a catalytic vapor incinerator, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also establish the design minimum and average temperatures across the catalyst bed inlet and outlet.
- iii) For a boiler or process heater, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also establish the design minimum and average flame zone temperatures, combustion zone residence time, and description of method and location where the vent stream is introduced into the combustion zone.
- iv) For a flare, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also consider the requirements specified in Section 721.933(d).
- v) For a condenser, the design analysis must consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis must also establish the design outlet organic compound concentration level, design average temperature of the condenser exhaust vent stream, and design average temperatures of the coolant fluid at the condenser inlet and outlet.
- vi) For a carbon adsorption system such as a fixed-bed adsorber that regenerates the carbon bed directly onsite in the control device, the design analysis must consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis must also establish the design exhaust vent stream organic compound concentration level, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total steam flow over the period of each complete carbon bed regeneration cycle, duration of the carbon bed steaming and cooling/ drying cycles, design carbon bed temperature after regeneration, design carbon bed regeneration time, and design service life of carbon.

- vii) For a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device, the design analysis must consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis must also establish the design outlet organic concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.
  
- D) A statement signed and dated by the remanufacturer or other person that stores or treats the hazardous secondary material certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous secondary material management unit is or would be operating at the highest load or capacity level reasonably expected to occur.
  
- E) A statement signed and dated by the remanufacturer or other person that stores or treats the hazardous secondary material certifying that the control device is designed to operate at an efficiency of 95 percent or greater unless the total organic concentration limit of Section 721.932(a) is achieved at an efficiency less than 95 weight percent or the total organic emission limits of Section 721.932(a) for affected process vents at the facility can be attained by a control device involving vapor recovery at an efficiency less than 95 weight percent. A statement provided by the control device manufacturer or vendor certifying that the control equipment meets the design specifications may be used to comply with this requirement.
  
- F) If performance tests are used to demonstrate compliance, all test results.
  
- c) Design documentation and monitoring, operating, and inspection information for each closed-vent system and control device required to comply with the provisions of this part must be recorded and kept up-to-date at the facility. The information must include the following:
  - 1) Description and date of each modification that is made to the closed-vent system or control device design.
  
  - 2) Identification of operating parameter, description of monitoring device, and diagram of monitoring sensor location or locations used to comply with Section 721.933 (f)(1) and (f)(2).

- 3) Monitoring, operating, and inspection information required by Section 721.933(f) through (k).
- 4) Date, time, and duration of each period that occurs while the control device is operating when any monitored parameter exceeds the value established in the control device design analysis, as specified below:
- A) For a thermal vapor incinerator designed to operate with a minimum residence time of 0.50 second at a minimum temperature of 760° C, period when the combustion temperature is below 760° C.
  - B) For a thermal vapor incinerator designed to operate with an organic emission reduction efficiency of 95 weight percent or greater, period when the combustion zone temperature is more than 28° C below the design average combustion zone temperature established as a requirement of subsection (b)(4)(C)(i).
  - C) For a catalytic vapor incinerator, period when either of the following occurs:
    - i) Temperature of the vent stream at the catalyst bed inlet is more than 28° C below the average temperature of the inlet vent stream established as a requirement of subsection (b)(4)(C)(ii), or
    - ii) Temperature difference across the catalyst bed is less than 80 percent of the design average temperature difference established as a requirement of subsection (b)(4)(C)(ii).
  - D) For a boiler or process heater, period when either of the following occurs:
    - i) Flame zone temperature is more than 28° C below the design average flame zone temperature established as a requirement of subsection (b)(4)(C)(iii), or
    - ii) Position changes where the vent stream is introduced to the combustion zone from the location established as a requirement of subsection (b)(4)(C)(iii).
  - E) For a flare, period when the pilot flame is not ignited.
  - F) For a condenser that complies with Section 721.933(f)(2)(F)(i), period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the condenser are more than 20 percent greater than the design outlet



organic compound concentration level established as a requirement of subsection (b)(4)(C)(v).

- G) For a condenser that complies with Section 721.933(f)(2)(F)(ii), period when either of the following occurs:
- i) Temperature of the exhaust vent stream from the condenser is more than 6° C above the design average exhaust vent stream temperature established as a requirement of subsection (b)(4)(C)(v); or
  - ii) Temperature of the coolant fluid exiting the condenser is more than 6° C above the design average coolant fluid temperature at the condenser outlet established as a requirement of subsection (b)(4)(C)(v).
- H) For a carbon adsorption system, such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device and which complies with Section 721.933(f)(2)(G)(i), any period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the carbon bed are more than 20 percent greater than the design exhaust vent stream organic compound concentration level established as a requirement of subsection (b)(4)(C)(vi).
- I) For a carbon adsorption system, such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device and which complies with Section 721.933(f)(2)(G)(ii), any period when the vent stream continues to flow through the control device beyond the predetermined carbon bed regeneration time established as a requirement of subsection (b)(4)(C)(vi).
- 5) Explanation for each period recorded under subsection (c)(4) of the cause for control device operating parameter exceeding the design value and the measures implemented to correct the control device operation.
- 6) For a carbon adsorption system operated subject to requirements specified in Section 721.933(g) or (h)(2), any date when existing carbon in the control device is replaced with fresh carbon.
- 7) For a carbon adsorption system operated subject to requirements specified in Section 721.933(h)(1), a log that records:
- A) Date and time when control device is monitored for carbon breakthrough and the monitoring device reading.

- B) Date when existing carbon in the control device is replaced with fresh carbon.
- 8) Date of each control device startup and shutdown.
- 9) A remanufacturer or other person that stores or treats the hazardous secondary material designating any components of a closed-vent system as unsafe to monitor pursuant to Section 721.933(o) must record in a log that is kept at the facility the identification of closed-vent system components that are designated as unsafe to monitor in accordance with the requirements of Section 721.933(o), an explanation for each closed vent system component stating why the closed-vent system component is unsafe to monitor, and the plan for monitoring each closed-vent system component.
- 10) When each leak is detected as specified in Section 721.933(l), the following information must be recorded:
- A) The instrument identification number, the closed-vent system component identification number, and the operator name, initials, or identification number.
- B) The date the leak was detected and the date of first attempt to repair the leak.
- C) The date of successful repair of the leak.
- D) Maximum instrument reading measured by Reference Method 21 (Determination of Volatile Organic Compound Leaks) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111, after it is successfully repaired or determined to be nonrepairable.
- E) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
- i) The remanufacturer or other person that stores or treats the hazardous secondary material may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.
- ii) If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion.

- d) Records of the monitoring, operating, and inspection information required by subsections (c)(3) through (c)(10) must be maintained by the owner or operator for at least three years following the date of each occurrence, measurement, maintenance, corrective action, or record.
- e) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, the Agency must specify the appropriate recordkeeping requirements. The Agency must specify the appropriate recordkeeping requirements in writing to the remanufacturer or other person that stores or treats the hazardous secondary material.
- f) Up-to-date information and data used to determine whether or not a process vent is subject to the requirements in Section 721.932 including supporting documentation as required by Section 721.934(d)(2) when application of the knowledge of the nature of the hazardous secondary material stream or the process by which it was produced is used, must be recorded in a log that is kept at the facility.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

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

##### **Section 721.950 Applicability**

The regulations in this this Subpart BB apply to equipment that contains hazardous secondary materials excluded under the remanufacturing exclusion at Section 721.4(a)(27), unless the equipment operations are subject to the requirements of an applicable federal Clean Air Act regulation in 40 CFR 60 (Standards of Performance for New Stationary Sources), 61 (National Emission Standards for Hazardous Air Pollutants), or 63 (National Emission Standards for Hazardous Air Pollutants for Source Categories), each incorporated by reference in 35 Ill. Adm. Code 720.111.

BOARD NOTE: 415 ILCS 5/9.1(b) and (d) make the federal new source performance standards and national emission standards for hazardous air pollutants directly applicable in Illinois and prohibit operation of an emission source without a permit issued by the Agency. The Agency issues permits that incorporate the federal new source performance standards and national emission standards for hazardous air pollutants pursuant to 415 ILCS 5/39.5.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

##### **Section 721.951 Definitions**

As used in this this Subpart BB, all terms will have the meaning given them in Section 721.931; section 1004 of the federal Resource Conservation and Recovery Act (42 USC 6903), incorporated by reference in 35 Ill. Adm. Code 720.111; and 35 Ill. Adm. Code 720 through 726.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 721.952 Standards: Pumps in Light Liquid Service**

- a) Monitoring.
  - 1) Each pump in light liquid service must be monitored monthly to detect leaks by the methods specified in Section 721.963(b), except as provided in subsections (d), (e), and (f).
  - 2) Each pump in light liquid service must be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.
  
- b) Leaks.
  - 1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
  - 2) If there are indications of liquids dripping from the pump seal, a leak is detected.
  
- c) Repairs.
  - 1) When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 721.959.
  - 2) A first attempt at repair (e.g., tightening the packing gland) must be made no later than five calendar days after each leak is detected.
  
- d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of subsection (a), provided the following requirements are met:
  - 1) Each dual mechanical seal system must be as follows:
    - A) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure, or
    - B) Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of Section 721.960, or
    - C) Equipped with a system that purges the barrier fluid into a hazardous secondary material stream with no detectable emissions to the atmosphere.
  - 2) The barrier fluid system must not be a hazardous secondary material with organic concentrations 10 percent or greater by weight.

- 3) Each barrier fluid system must be equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.
- 4) Each pump must be checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.
- 5) Alarms.
  - A) Each sensor as described in subsection (d)(3) must be checked daily or be equipped with an audible alarm that must be checked monthly to ensure that it is functioning properly.
  - B) The remanufacturer or other person that stores or treats the hazardous secondary material must determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.
- 6) Leaks.
  - A) If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in subsection (d)(5)(B), a leak is detected.
  - B) When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 721.959.
  - C) A first attempt at repair (e.g., relapping the seal) must be made no later than five calendar days after each leak is detected.
- e) Any pump that is designated, as described in Section 721.964(g)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of subsections (a), (c), and (d) if the pump meets the following requirements:
  - 1) Must have no externally actuated shaft penetrating the pump housing.
  - 2) Must operate with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in Section 721.963(c).
  - 3) Must be tested for compliance with subsection (e)(2) initially upon designation, annually, and at other times as requested by the Agency. The Agency must request any compliance testing at times other than annually in writing to the remanufacturer or other person that stores or treats the hazardous secondary material.

- f) If any pump is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of Section 721.960, it is exempt from the requirements of subsections (a) through (e).

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.953 Standards: Compressors**

- a) Each compressor must be equipped with a seal system that includes a barrier fluid system and that prevents leakage of total organic emissions to the atmosphere, except as provided in subsections (h) and (i).
- b) Each compressor seal system as required in subsection (a) must be:
- 1) Operated with the barrier fluid at a pressure that is at all times greater than the compressor stuffing box pressure, or
  - 2) Equipped with a barrier fluid system that is connected by a closed-vent system to a control device that complies with the requirements of Section 721.960, or
  - 3) Equipped with a system that purges the barrier fluid into a hazardous secondary material stream with no detectable emissions to atmosphere.
- c) The barrier fluid must not be a hazardous secondary material with organic concentrations 10 percent or greater by weight.
- d) Each barrier fluid system, as described in subsections (a) through (c), must be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.
- e) Inspections.
- 1) Each sensor as required in subsection (d) must be checked daily or must be equipped with an audible alarm that must be checked monthly to ensure that it is functioning properly unless the compressor is located within the boundary of an unmanned plant site, in which case the sensor must be checked daily.
  - 2) The remanufacturer or other person that stores or treats the hazardous secondary material must determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.
- f) If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined under subsection (e)(2), a leak is detected.

- g) Repairs.
- 1) When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 721.959.
  - 2) A first attempt at repair (e.g., tightening the packing gland) must be made no later than five calendar days after each leak is detected.
- h) A compressor is exempt from the requirements of subsections (a) and (b) if it is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal to a control device that complies with the requirements of Section 721.960, except as provided in subsection (i).
- i) Any compressor that is designated, as described in Section 721.964(g)(2), for no detectable emissions as indicated by an instrument reading of less than 500 ppm above background is exempt from the requirements of subsections (a) through (h) if the compressor:
- 1) Is determined to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Section 721.963(c).
  - 2) Is tested for compliance with subsection (i)(1) initially upon designation, annually, and at other times as requested by the Agency. The Agency must request any compliance testing at times other than annually in writing to the remanufacturer or other person that stores or treats the hazardous secondary material.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.954 Standards: Pressure Relief Devices in Gas/Vapor Service**

- a) Except during pressure releases, each pressure relief device in gas/vapor service must be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Section 721.963(c).
- b) Actions following pressure release.
  - 1) After each pressure release, the pressure relief device must be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than five calendar days after each pressure release, except as provided in Section 721.959.
  - 2) No later than five calendar days after the pressure release, the pressure relief device must be monitored to confirm the condition of no detectable

emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Section 721.963(c).

- c) Any pressure relief device that is equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in Section 721.960 is exempt from the requirements of subsections (a) and (b).

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.955 Standards: Sampling Connection Systems**

- a) Each sampling connection system must be equipped with a closed-purge, closed-loop, or closed-vent system. This system must collect the sample purge for return to the process or for routing to the appropriate treatment system. Gases displaced during filling of the sample container are not required to be collected or captured.
- b) Each closed-purge, closed-loop, or closed-vent system as required in subsection (a) must meet one of the following requirements:
- 1) It must return the purged process fluid directly to the process line;
  - 2) It must collect and recycle the purged process fluid; or
  - 3) It must be designed and operated to capture and transport all the purged process fluid to a material management unit that complies with the applicable requirements of Sections 721.984 through 264.986 or a control device that complies with the requirements of Section 721.960.
- c) In-situ sampling systems and sampling systems without purges are exempt from the requirements of subsections (a) and (b).

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.956 Standards: Open-Ended Valves or Lines**

- a) Equipment.
- 1) Each open-ended valve or line must be equipped with a cap, blind flange, plug, or a second valve.
  - 2) The cap, blind flange, plug, or second valve must seal the open end at all times except during operations requiring hazardous secondary material stream flow through the open-ended valve or line.



- b) Each open-ended valve or line equipped with a second valve must be operated in a manner such that the valve on the hazardous secondary material stream end is closed before the second valve is closed.
- c) When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but must comply with subsection (a) at all other times.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.957 Standards: Valves in Gas/Vapor Service or in Light Liquid Service**

- a) Each valve in gas/vapor or light liquid service must be monitored monthly to detect leaks by the methods specified in Section 721.963(b) and must comply with subsections (b) through (e), except as provided in subsections (f), (g), and (h) and Sections 721.961 and 721.962.
- b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
- c) Monitoring Frequency.
  - 1) Any valve for which a leak is not detected for two successive months may be monitored the first month of every succeeding quarter, beginning with the next quarter, until a leak is detected.
  - 2) If a leak is detected, the valve must be monitored monthly until a leak is not detected for two successive months.
- d) Leak repair.
  - 1) When a leak is detected, it must be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in Section 721.959.
  - 2) A first attempt at repair must be made no later than five calendar days after each leak is detected.
- e) First attempts at repair include, but are not limited to, the following best practices where practicable:
  - 1) Tightening of bonnet bolts.
  - 2) Replacement of bonnet bolts.
  - 3) Tightening of packing gland nuts.
  - 4) Injection of lubricant into lubricated packing.

- f) Any valve that is designated, as described in Section 721.964(g)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of subsection (a) if the valve:
- 1) Has no external actuating mechanism in contact with the hazardous secondary material stream.
  - 2) Is operated with emissions less than 500 ppm above background as determined by the method specified in Section 721.963(c).
  - 3) Is tested for compliance with subsection (f)(2) initially upon designation, annually, and at other times as requested by the Agency. The Agency must request any compliance testing at times other than annually in writing to the remanufacturer or other person that stores or treats the hazardous secondary material.
- g) Any valve that is designated, as described in Section 721.964(h)(1), as an unsafe-to-monitor valve is exempt from the requirements of subsection (a) if both of the following conditions are fulfilled:
- 1) The remanufacturer or other person that stores or treats the hazardous secondary material determines that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with subsection (a); and
  - 2) The remanufacturer or other person that stores or treats the hazardous secondary material adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.
- h) Any valve that is designated, as described in Section 721.964(h)(2), as a difficult-to-monitor valve is exempt from the requirements of subsection (a) if all of the following conditions are fulfilled:
- 1) The remanufacturer or other person that stores or treats the hazardous secondary material determines that the valve cannot be monitored without elevating the monitoring personnel more than two meters above a support surface;
  - 2) The hazardous secondary material management unit within which the valve is located was in operation before January 13, 2015; and
  - 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 721.958 Standards: Pumps and Valves in Heavy Liquid Service, Pressure Relief Devices in Light Liquid or Heavy Liquid Service, and Flanges and Other Connectors**

- a) Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors must be monitored within five days by the method specified in Section 721.963(b) if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method.
- b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
- c) Repairs.
  - 1) When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 721.959.
  - 2) The first attempt at repair must be made no later than five calendar days after each leak is detected.
- d) First attempts at repair include, but are not limited to, the best practices described under Section 721.957(e).
- e) Any connector that is inaccessible or which is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined) is exempt from the monitoring requirements of subsection (a) and from the recordkeeping requirements of Section 721.964.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 721.959 Standards: Delay of Repair**

- a) Delay of repair of equipment for which leaks have been detected will be allowed if the repair is technically infeasible without a hazardous secondary material management unit shutdown. In such a case, repair of this equipment must occur before the end of the next hazardous secondary material management unit shutdown.
- b) Delay of repair of equipment for which leaks have been detected will be allowed for equipment that is isolated from the hazardous secondary material management unit and that does not continue to contain or contact hazardous secondary material with organic concentrations at least 10 percent by weight.
- c) Delay of repair for valves will be allowed if:
  - 1) The remanufacturer or other person that stores or treats the hazardous secondary material determines that emissions of purged material resulting from immediate repair are greater than the emissions likely to result from delay of repair.

- 2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with Section 721.960.
- d) Delay of repair for pumps will be allowed if both of the following conditions are fulfilled:
  - 1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system; and
  - 2) Repair is completed as soon as practicable, but not later than six months after the leak was detected.
- e) Delay of repair beyond a hazardous secondary material management unit shutdown will be allowed for a valve if valve assembly replacement is necessary during the hazardous secondary material management unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next hazardous secondary material management unit shutdown will not be allowed unless the next hazardous secondary material management unit shutdown occurs sooner than six months after the first hazardous secondary material management unit shutdown.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.960 Standards: Closed-Vent Systems and Control Devices**

- a) The remanufacturer or other person that stores or treats the hazardous secondary material in a hazardous secondary material management units using closed-vent systems and control devices subject to this Subpart BB must comply with the provisions of Section 721.933.
- b) Implementation Schedule.
  - 1) The remanufacturer or other person that stores or treats the hazardous secondary material at an existing facility who cannot install a closed-vent system and control device to comply with the provisions of this Subpart BB on the effective date that the facility becomes subject to the provisions of this Subpart BB must 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 BB for installation and startup.
  - 2) Any unit that begins operation after July 13, 2015 and which is subject to the provisions of this Subpart BB when operation begins, must comply with the rules immediately (i.e., must have control devices installed and

operating on startup of the affected unit); the 30-month implementation schedule does not apply.

- 3) The remanufacturer or other person that stores or treats the hazardous secondary material at any facility in existence on the effective date of a statutory or regulatory amendment that renders the facility subject to this Subpart BB must comply with all requirements of this Subpart BB as soon as practicable but no later than 30 months after the amendment's effective date. When control equipment required by this Subpart BB cannot be installed and begin operation by the effective date of the amendment, the facility owner or operator must prepare an implementation schedule that includes the following information: specific calendar dates for award of contracts or issuance of purchase orders for the control equipment, initiation of on-site installation of the control equipment, completion of the control equipment installation, and performance of any testing to demonstrate that the installed equipment meets the applicable standards of this Subpart BB. The remanufacturer or other person that stores or treats the hazardous secondary material must keep a copy of the implementation schedule at the facility.
- 4) Remanufacturers or other persons that store or treat the hazardous secondary materials at facilities and units that become newly subject to the requirements of this Subpart BB after January 13, 2015, due to an action other than those described in subsection (b)(3), must comply with all applicable requirements immediately (i.e., must have control devices installed and operating on the date the facility or unit becomes subject to this Subpart BB; the 30-month implementation schedule does not apply).

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 721.961 Alternative Standards for Valves in Gas/Vapor Service or in Light Liquid Service: Percentage of Valves Allowed to Leak**

- a) A remanufacturer or other person that stores or treats the hazardous secondary material subject to the requirements of Section 721.957 may elect to have all valves within a hazardous secondary material management unit comply with an alternative standard that allows no greater than two percent of the valves to leak.
- b) The following requirements must be met if a remanufacturer or other person that stores or treats the hazardous secondary material decides to comply with the alternative standard of allowing two percent of valves to leak:
  - 1) A performance test, as specified in subsection (c), must be conducted initially upon designation, annually, and at other times requested by the Agency in writing to the remanufacturer or other persons that stores or treats the hazardous secondary material; and

- 2) If a valve leak is detected, it must be repaired in accordance with Section 721.957(d) and (e).
- c) Performance tests must be conducted in the following manner:
  - 1) All valves subject to the requirements in Section 721.957 within the hazardous secondary material management unit must be monitored within 1 week by the methods specified in Section 721.963(b).
  - 2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
  - 3) The leak percentage must be determined by dividing the number of valves subject to the requirements in Section 721.957 for which leaks are detected by the total number of valves subject to the requirements in Section 721.957 within the hazardous secondary material management unit.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 721.962 Alternative Standards for Valves in Gas/Vapor Service or in Light Liquid Service: Skip Period Leak Detection and Repair**

- a) A remanufacturer or other person that stores or treats the hazardous secondary material subject to the requirements of Section 721.957 may elect for all valves within a hazardous secondary material management unit to comply with one of the alternative work practices specified in subsections (b)(2) and (b)(3).
- b) Reduced Monitoring.
  - 1) A remanufacturer or other person that stores or treats the hazardous secondary material must comply with the requirements for valves, as described in Section 721.957, except as described in subsections (b)(2) and (b)(3).
  - 2) After two consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than two percent, a remanufacturer or other person that stores or treats the hazardous secondary material may begin to skip one of the quarterly leak detection periods (i.e., monitor for leaks once every six months) for the valves subject to the requirements in Section 721.957.
  - 3) After five consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than two percent, a remanufacturer or other person that stores or treats the hazardous secondary material may begin to skip three of the quarterly leak detection periods (i.e., monitor for leaks once every year) for the valves subject to the requirements in Section 721.957.

- 4) If the percentage of valves leaking is greater than two percent, the remanufacturer or other person that stores or treats the hazardous secondary material must monitor monthly in compliance with the requirements in Section 721.957, but may again elect to use this section after meeting the requirements of Section 721.957(c)(1).

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.963 Test Methods and Procedures**

- a) Each remanufacturer or other person that stores or treats the hazardous secondary material subject to the provisions of this Subpart BB must comply with the test methods and procedures requirements provided in this section.
- b) Leak detection monitoring, as required in Sections 721.952–261.962, must comply with the following requirements:
  - 1) Monitoring must comply with Reference Method 21 (Determination of Volatile Organic Compound Leaks) in appendix A to 40 CFR 60 (Test Methods), 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 as follows:
    - A) Zero air (less than 10 ppm of hydrocarbon in air); and
    - 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 721.952(e), 261.953(i), 261.954, and 261.957(f), the test must comply with the following requirements:
  - 1) The requirements of subsections (b)(1) through (b)(4) must 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) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.
- d) A remanufacturer or other person that stores or treats the hazardous secondary material must determine, for each piece of equipment, whether the equipment contains or contacts a hazardous secondary material with organic concentration that equals or exceeds 10 percent by weight using the following:
- 1) Methods described in ASTM Methods D 2267–88, E 169–87, E 168– 88, E 260–85, incorporated by reference in 35 Ill. Adm. Code 720.111;
  - 2) Method 9060A of “Test Methods for Evaluating Solid Waste,” USEPA Publication SW–846, incorporated by reference in 35 Ill. Adm. Code 720.111, for computing total organic concentration of the sample, or analyzed for its individual organic constituents; or
  - 3) Application of the knowledge of the nature of the hazardous secondary material stream or the process by which it was produced. Documentation of a material 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 material 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 material stream, where it can also be documented that no process changes have occurred since that analysis that could affect the material total organic concentration.
- e) If a remanufacturer or other person that stores or treats the hazardous secondary material determines that a piece of equipment contains or contacts a hazardous secondary material 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).
- f) When a remanufacturer or other person that stores or treats the hazardous secondary material and the Agency do not agree on whether a piece of equipment contains or contacts a hazardous secondary material with organic concentrations at least 10 percent by weight, the procedures in subsection (d)(1) or (d)(2) can be used to resolve the dispute. The Agency must state any disagreement on whether a piece of equipment contains or contacts a hazardous secondary material with organic concentrations at least 10 percent by weight in writing to the remanufacturer or other person that stores or treats the hazardous secondary material.



- g) Samples used in determining the percent organic content must be representative of the highest total organic content hazardous secondary material 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 may be obtained from standard reference texts or may be determined by ASTM D 2879-92, 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 721.934(c)(1) through (c)(4).

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.964 Recordkeeping Requirements**

- a) Lumping Units.
  - 1) Each remanufacturer or other person that stores or treats the hazardous secondary material subject to the provisions of this Subpart BB must comply with the recordkeeping requirements of this Section.
  - 2) A remanufacturer or other person that stores or treats the hazardous secondary material in more than one hazardous secondary material management unit subject to the provisions of this Subpart BB may comply with the recordkeeping requirements for these hazardous secondary material management units in one recordkeeping system if the system identifies each record by each hazardous secondary material management unit.
- b) Remanufacturer's and other person's that store or treat the hazardous secondary material must record and keep the following information at the facility:
  - 1) For each piece of equipment to which this Subpart BB applies:
    - A) The equipment identification number and hazardous secondary material management unit identification.
    - B) The approximate locations within the facility (e.g., identify the hazardous secondary material management unit on a facility plot plan).
    - C) The type of equipment (e.g., a pump or pipeline valve).
    - D) The percent-by-weight total organics in the hazardous secondary material stream at the equipment.

- E) The hazardous secondary material state at the equipment (e.g., gas/vapor or liquid).
  - F) A method of compliance with the standard (e.g., “monthly leak detection and repair” or “equipped with dual mechanical seals”).
- 2) For facilities that comply with the provisions of Section 721.933(a)(2), an implementation schedule, as specified in Section 721.933(a)(2).
  - 3) Where a remanufacturer or other person that stores or treats the hazardous secondary material 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 721.935(b)(3).
  - 4) Documentation of compliance with Section 721.960, including the detailed design documentation or performance test results specified in Section 721.935(b)(4).
- c) When each leak is detected, as specified in Sections 721.952, 261.953, 261.957, and 261.958, 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 721.958(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 two successive months as specified in Section 721.957(c) and no leak has been detected during those two months.
- d) When each leak is detected, as specified in Sections 721.952, 261.953, 261.957, and 261.958, the following information must be recorded in an inspection log and must be kept at the facility:
- 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 721.958(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 721.963(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 721.959(c).
  - 8) The signature of the remanufacturer or other person that stores or treats the hazardous secondary material (or designate) whose decision it was that repair could not be effected without a hazardous secondary material 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 721.960 must be recorded and kept up-to-date at the facility, as specified in Section 721.935(c). Design documentation is specified in Section 721.935(c)(1) and (c)(2) and monitoring, operating, and inspection information in Section 721.935(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 must specify in writing the appropriate recordkeeping requirements.
  - g) The following information pertaining to all equipment subject to the requirements in Sections 721.952 through 261.960 must be recorded in a log that is kept at the facility:
    - 1) A list of identification numbers for equipment (except welded fittings) subject to the requirements of this Subpart BB.
    - 2) List of Equipment.
      - A) A list of identification numbers for equipment that the remanufacturer or other person that stores or treats the hazardous secondary material 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 721.952(e), 261.953(i), and 261.957(f).

- B) The designation of this equipment as subject to the requirements of Sections 721.952(e), 261.953(i), or 261.957(f) must be signed by the remanufacturer or other person that stores or treats the hazardous secondary material.
- 3) A list of equipment identification numbers for pressure relief devices required to comply with Section 721.954(a).
- 4) Compliance tests.
  - A) The dates of each compliance test required in Sections 721.952(e), 261.953(i), 261.954, and 261.957(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 secondary material with an organic concentration of at least 10 percent by weight for less than 300 hours per calendar year.
- h) The following information pertaining to all valves subject to the requirements of Section 721.957(g) and (h) must be recorded in a log that is kept at the facility:
  - 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 a log that is kept at the facility for valves complying with Section 721.962:
  - 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 at in the facility:
  - 1) Criteria required in Sections 721.952(d)(5)(B) and 261.953(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 at the facility for use in determining exemptions, as provided in the applicability section of this Subpart BB and other specific Subparts:
- 1) An analysis determining the design capacity of the hazardous secondary material management unit.
  - 2) A statement listing the hazardous secondary material influent to and effluent from each hazardous secondary material management unit subject to the requirements in Sections 721.952 through 261.960 and an analysis determining whether these hazardous secondary materials 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 721.952 through 261.960. The record must include supporting documentation as required by Section 721.963(d)(3) when application of the knowledge of the nature of the hazardous secondary material stream or the process by which it was produced is used. If the remanufacturer or other person that stores or treats the hazardous secondary material takes any action (e.g., changing the process that produced the material) that could result in an increase in the total organic content of the material contained in or contacted by equipment determined not to be subject to the requirements in Sections 721.952 through 261.960, then a new determination is required.
- l) Records of the equipment leak information required by subsection (d) and the operating information required by subsection (e) need be kept only three years.
- m) The remanufacturer or other person that stores or treats the hazardous secondary material at a facility with equipment that is subject to this Subpart BB and to regulations in 40 CFR 60 (Standards of Performance for New Stationary Sources), 61 (National Emission Standards for Hazardous Air Pollutants), or 63 (National Emission Standards for Hazardous Air Pollutants for Source Categories), incorporated by reference in 35 Ill. Adm. Code 720.111, may elect to determine compliance with this Subpart BB either by documentation pursuant to Section 721.964, or by documentation of compliance with the regulations in 40 CFR 60, 61, or 63 pursuant to the relevant provisions of the regulations in 40 CFR 60, 61, or 63. The documentation of compliance under regulations in 40 CFR 60, 61, or 63 must be kept with or made readily available at the facility.

BOARD NOTE: 415 ILCS 5/9.1(b) and (d) make the federal new source performance standards and national emission standards for hazardous air pollutants directly applicable in Illinois and prohibit operation of an emission source without a permit issued by the Agency. The Agency issues permits that incorporate the federal new source performance standards and national emission standards for hazardous air pollutants pursuant to 415 ILCS 5/39.5.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

SUBPART CC: AIR EMISSION STANDARDS FOR TANKS  
AND CONTAINERS

**Section 721.980 Applicability**

The regulations in this Subpart CC apply to tanks and containers that contain hazardous secondary materials excluded under the remanufacturing exclusion at Section 721.4(a)(27), unless the tanks and containers are equipped with and operating air emission controls in accordance with the requirements of an applicable federal Clean Air Act regulations codified in 40 CFR 60 (Standards of Performance for New Stationary Sources), 61 (National Emission Standards for Hazardous Air Pollutants), or 63 (National Emission Standards for Hazardous Air Pollutants for Source Categories), each incorporated by reference in 35 Ill. Adm. Code 720.111.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 721.981 Definitions**

As used in this this Subpart CC, all terms not defined herein will have the meaning given to them in section 1004 of the federal Resource Conservation and Recovery Act (42 USC 6903), incorporated by reference in 35 Ill. Adm. Code 720.111, 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 secondary material as determined in accordance with the requirements of Section 721.984.

“Closure device” means a cap, hatch, lid, plug, seal, valve, or other type of fitting that blocks an opening in a cover such 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 secondary material managed in a unit to prevent or reduce air pollutant emissions to the atmosphere. A cover may have openings (such as access hatches, sampling ports, gauge wells) that are necessary for operation, inspection, maintenance, and 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.

“Empty hazardous secondary material container” means any of the following:

A container from which all hazardous secondary materials have been removed that can be removed using the practices commonly employed to remove materials from that type of container (e.g., pouring, pumping, or aspirating), and no more than 2.5 centimeters (one inch) of residue remain on the bottom of the container or inner liner;

A container that is less than or equal to 119 gallons (450 liters) in size and no more than three percent by weight of the total capacity of the container remains in the container or inner liner; or

A container that is greater than 119 (450 liters) gallons in size and no more than 0.3 percent by weight of the total capacity of the container remains in the container or inner liner.

“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 the material 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 secondary material being managed in a surface impoundment.

“Floating roof” means a cover consisting of a double deck, pontoon single deck, or internal floating cover which 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; and the total concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa at 20° C is equal to or greater than 20 percent 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 secondary material 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. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

“Material determination” means performing all applicable procedures in accordance with the requirements of Section 721.984 to determine whether a hazardous secondary material meets standards specified in this Subpart CC. Examples of a material determination include performing the procedures in accordance with the requirements of Section 721.984 to determine the average VO concentration of a hazardous secondary material at the point of material origination; the average VO concentration of a hazardous secondary material at the point of material treatment and comparing the results to the exit concentration limit specified for the process used to treat the hazardous secondary material; the organic reduction efficiency and the organic biodegradation efficiency for a biological process used to treat a hazardous secondary material and comparing the results to the applicable standards; or the maximum volatile organic vapor pressure for a hazardous secondary material in a tank and comparing the results to the applicable standards.

“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 materials, etc.) reasonably expected to occur in the tank. For the purpose of this Subpart CC, maximum organic vapor pressure is determined using the procedures specified in Section 721.984(c).

“Metallic shoe seal” means a continuous seal that is constructed of metal sheets which are held vertically against the wall of the tank by springs, weighted levers, or other mechanisms and 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 721.984(d).

“Point of material origination” means as follows:

Where the remanufacturer or other person that stores or treats the hazardous secondary material is the generator of the hazardous secondary material, the point of material origination means the point where a material produced by a system, process, or material management unit is



determined to be a hazardous secondary material excluded under Section 721.104(a)(27).

BOARD NOTE: Where the person that stores or treats the hazardous secondary material, “point of material origination” is being used in a manner similar to the use of the term “point of generation” in air standards established under authority of the federal Clean Air Act in 40 CFR 60 (Standards of Performance for New Stationary Sources), 61 (National Emission Standards for Hazardous Air Pollutants), and 63 (National Emission Standards for Hazardous Air Pollutants for Source Categories), each incorporated by reference in 35 Ill. Adm. Code 720.111.

Where the remanufacturer or other person that stores or treats the hazardous secondary material is not the generator of the hazardous secondary material, point of material origination means the point where the remanufacturer or other person that stores or treats the hazardous secondary material accepts delivery or takes possession of the hazardous secondary material.

“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 CC, 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 remanufacturer or other person that stores or treats the hazardous secondary material 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 such that there is a vapor space between the hazardous secondary material in the unit and the bottom of the seal.

“Volatile organic concentration” or “VO concentration” means the fraction by weight of the volatile organic compounds contained in a hazardous secondary material expressed in terms of parts per million (ppmw) as determined by direct

measurement or by knowledge of the material in accordance with the requirements of Section 721.984. For the purpose of determining the VO concentration of a hazardous secondary material, 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 (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 must be included.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.982 Standards: General**

- a) This Section applies to the management of hazardous secondary material in tanks and containers subject to this Subpart CC.
- b) The remanufacturer or other person that stores or treats the hazardous secondary material must control air pollutant emissions from each hazardous secondary material management unit in accordance with standards specified in Sections 721.984 through 261.987, as applicable to the hazardous secondary material management unit, except as provided for in subsection (c).
- c) A tank or container is exempt from standards specified in Sections 721.984 through 261.987, as applicable, provided that the hazardous secondary material management unit is a tank or container for which all hazardous secondary material entering the unit has an average VO concentration at the point of material origination of less than 500 parts per million by weight (ppmw). The average VO concentration must be determined using the procedures specified in Section 721.983(a). The remanufacturer or other person that stores or treats the hazardous secondary material must review and update, as necessary, this determination at least once every 12 months following the date of the initial determination for the hazardous secondary material streams entering the unit.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.983 Material Determination Procedures**

- a) Material determination procedure to determine average volatile organic (VO) concentration of a hazardous secondary material at the point of material origination.
  - 1) Determining average VO concentration at the point of material origination. A remanufacturer or other person that stores or treats the hazardous secondary material must determine the average VO concentration at the point of material origination for each hazardous secondary material placed in a hazardous secondary material management unit exempted under the provisions of Section 721.982(c)(1) from using air emission controls in accordance with standards specified in Sections 721.984 through 261.987, as applicable to the hazardous secondary material management unit.

- A) An initial determination of the average VO concentration of the material stream must be made before the first time any portion of the material in the hazardous secondary material stream is placed in a hazardous secondary material management unit exempted under the provisions of Section 721.982(c)(1) from using air emission controls, and thereafter an initial determination of the average VO concentration of the material stream must be made for each averaging period that a hazardous secondary material is managed in the unit; and
  - B) Perform a new material determination whenever changes to the source generating the material stream are reasonably likely to cause the average VO concentration of the hazardous secondary material to increase to a level that is equal to or greater than the applicable VO concentration limits specified in Section 721.982.
- 2) Determination of average VO concentration using direct measurement or knowledge. For a material determination that is required by subsection (a)(1), the average VO concentration of a hazardous secondary material at the point of material origination must be determined using either direct measurement, as specified in subsection (a)(3), or by knowledge of the hazardous secondary material, as specified in subsection (a)(4).
- 3) Direct measurement to determine average VO concentration of a hazardous secondary material at the point of material origination, as follows:
- A) Identification. The remanufacturer or other person that stores or treats the hazardous secondary material must identify and record in a log that is kept at the facility the point of material origination for the hazardous secondary material.
  - B) Sampling. Samples of the hazardous secondary material stream must be collected at the point of material origination in a manner such that volatilization of organics contained in the material and in the subsequent sample is minimized and an adequately representative sample is collected and maintained for analysis by the selected method.
    - i) The averaging period to be used for determining the average VO concentration for the hazardous secondary material stream on a mass-weighted average basis must be designated and recorded. The averaging period can represent any time interval that the remanufacturer or other person that stores or treats the hazardous secondary material determines is appropriate for the hazardous secondary material stream but must not exceed one year.

- ii) A sufficient number of samples, but no less than four samples, must be collected and analyzed for a hazardous secondary material determination. All of the samples for a given material determination must be collected within a one-hour period. The average of the four or more sample results constitutes a material determination for the material stream. One or more material determinations may be required to represent the complete range of material compositions and quantities that occur during the entire averaging period due to normal variations in the operating conditions for the source or process generating the hazardous secondary material stream. Examples of such normal variations are seasonal variations in material quantity or fluctuations in ambient temperature.
  - iii) All samples must be collected and handled in accordance with written procedures prepared by the remanufacturer or other person that stores or treats the hazardous secondary material and documented in a site sampling plan. This plan must describe the procedure by which representative samples of the hazardous secondary material stream are collected such that a minimum loss of organics occurs throughout the sample collection and handling process, and by which sample integrity is maintained. A copy of the written sampling plan must be maintained at the facility. An example of acceptable sample collection and handling procedures for a total volatile organic constituent concentration may be found in Reference Method 25D (Determination of the Volatile Organic Concentration of Waste Samples) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111.
  - iv) Sufficient information, as specified in the “site sampling plan” required under subsection (a)(3)(B)(iii), must be prepared and recorded to document the material quantity represented by the samples and, as applicable, the operating conditions for the source or process generating the hazardous secondary material represented by the samples.
- C) Analysis. Each collected sample must be prepared and analyzed in accordance with Reference Method 25D (Determination of the Volatile Organic Concentration of Waste Samples) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111, for the total concentration of volatile organic constituents, or using one or more methods when the individual organic compound concentrations are identified and summed and

the summed material concentration accounts for and reflects all organic compounds in the material with Henry's law constant values at least 0.1 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. At the discretion of the remanufacturer or other person that stores or treats the hazardous secondary material, the test data obtained may be adjusted by any appropriate method to discount any contribution to the total volatile organic concentration that is a result of including a compound with a Henry's law constant value of less than 0.1 Y/X at 25° C. To adjust these data, the measured concentration of each individual chemical constituent contained in the material is multiplied by the appropriate constituent-specific adjustment factor ( $f_{m25D}$ ). If the remanufacturer or other person that stores or treats the hazardous secondary material elects to adjust the test data, the adjustment must be made to all individual chemical constituents with a Henry's law constant value greater than or equal to 0.1 Y/X at 25° C contained in the material. To adjust these data, the measured concentration of each individual chemical constituent contained in the waste is multiplied by the constituent-specific adjustment factors ( $f_{m25D}$ ) obtained in writing from the Agency. Other test methods may be used if they meet the requirements in subsection (a)(3)(C)(i) or (a)(3)(C)(ii) and provided the requirement to reflect all organic compounds in the material with Henry's law constant values greater than or equal to 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, is met.

- i) Any USEPA standard method that has been validated in accordance with appendix D to 40 CFR 63 (Alternative Validation Procedure for EPA Waste and Wastewater Methods), incorporated by reference in 35 Ill. Adm. Code 720.111.
- ii) Any other analysis method that has been validated in accordance with the procedures specified in Section 5.1 or Section 5.3, and the corresponding calculations in Section 6.1 or Section 6.3, of Method 301 (Field Validation of Pollutant Measurement Methods from Various Waste Media) in appendix A to 40 CFR 63 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111. The data are acceptable if they meet the criteria specified in Section 6.1.5 or Section 6.3.3 of Method 301. If correction is required under section 6.3.3 of Method 301, the data are acceptable if the correction factor is within the range 0.7 to 1.30. Other sections of Method 301 are not required.

D) Calculations.

- i) The average VO concentration (C) on a mass-weighted basis must be calculated by using the results for all material determinations conducted in accordance with subsections (a)(3)(B) and (a)(3)(C) and the following equation:

$$\bar{C} = \frac{1}{Q_T} \times \sum_{i=1}^n Q_i \times C_i$$

Where:

C = Average VO concentration of the hazardous secondary material at the point of material origination on a mass-weighted basis, ppmw.

i = Individual material determination "i" of the hazardous secondary material.

n = Total number of material determinations of the hazardous secondary material conducted for the averaging period (not to exceed one year).

Q<sub>i</sub> = Mass quantity of hazardous secondary material stream represented by C<sub>i</sub>, kg/hr.

Q<sub>T</sub> = Total mass quantity of hazardous secondary material during the averaging period, kg/hr.

C<sub>i</sub> = Measured VO concentration of material determination "i" as determined in accordance with the requirements of subsection (a)(3)(C) (i.e. the average of the four or more samples specified in subsection (a)(3)(B)(ii)), ppmw.

- ii) For the purpose of determining C<sub>i</sub>, for individual material samples analyzed in accordance with subsection (a)(3)(C), the remanufacturer or other person that stores or treats the hazardous secondary material must account for VO concentrations determined to be below the limit of detection of the analytical method by using the VO concentration that is one-half the blank value determined in the method at section 4.4 of Reference Method 25D, if Reference Method 25D is used for the analysis; or that is one-half the sum of the limits of detection established for each organic constituent in the material that has a Henry's law constant values at least 0.1 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, if any other analytical method is used.

- 4) Use of knowledge by the remanufacturer or other person that stores or treats the hazardous secondary material to determine average VO concentration of a hazardous secondary material at the point of material origination.
- A) Documentation must be prepared that presents the information used as the basis for the knowledge by the remanufacturer or other person that stores or treats the hazardous secondary material of the hazardous secondary material stream's average VO concentration. Examples of information that may be used as the basis for knowledge include material balances for the source or process generating the hazardous secondary material stream; constituent-specific chemical test data for the hazardous secondary material stream from previous testing that are still applicable to the current material stream; previous test data for other locations managing the same type of material stream; or other knowledge based on information included in shipping papers or material certification notices.
- B) If test data are used as the basis for knowledge, then the remanufacturer or other person that stores or treats the hazardous secondary material must document the test method, sampling protocol, and the means by which sampling variability and analytical variability are accounted for in the determination of the average VO concentration. For example, a remanufacturer or other person that stores or treats the hazardous secondary material may use organic concentration test data for the hazardous secondary material stream that are validated in accordance with Method 301 (Field Validation of Pollutant Measurement Methods from Various Waste Media) in appendix A to 40 CFR 63 (Test Methods) as the basis for knowledge of the material.
- C) A remanufacturer or other person that stores or treats the hazardous secondary material using chemical constituent-specific concentration test data as the basis for knowledge of the hazardous secondary material may adjust the test data to the corresponding average VO concentration value which would have been obtained had the material samples been analyzed using Reference Method 25D (Determination of the Volatile Organic Concentration of Waste Samples) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b). To adjust these data, the measured concentration for each individual

chemical constituent contained in the material is multiplied by the appropriate constituent-specific adjustment factor ( $f_{m25D}$ ).

- D) In the event that the Agency and the remanufacture or other person that stores or treats the hazardous secondary material disagree on a determination of the average VO concentration for a hazardous secondary material stream using knowledge, then the results from a determination of average VO concentration using direct measurement as specified in subsection (a)(3) must be used to establish compliance with the applicable requirements of this Subpart CC. The Agency may perform or request that the remanufacturer or other person that stores or treats the hazardous secondary material perform this determination using direct measurement. The remanufacturer or other person that stores or treats the hazardous secondary material may choose one or more appropriate methods to analyze each collected sample in accordance with the requirements of subsection (a)(3)(C). The Agency must state any disagreement on determination of the average VO concentration for a hazardous secondary material stream using knowledge in writing to the remanufacturer or other person that stores or treats the hazardous secondary material.
- b) This subsection (b) corresponds with 40 CFR 261.1083(b), marked “reserved” by USEPA. This statement maintains structural consistency with the federal regulations.
- c) Procedure to determine the maximum organic vapor pressure of a hazardous secondary material in a tank.
- 1) A remanufacturer or other person that stores or treats the hazardous secondary material must determine the maximum organic vapor pressure for each hazardous secondary material placed in a tank using Tank Level 1 controls in accordance with standards specified in Section 721.984(c).
  - 2) A remanufacturer or other person that stores or treats the hazardous secondary material must use either direct measurement as specified in subsection (c)(3) or knowledge of the waste as specified by subsection (c)(4) to determine the maximum organic vapor pressure which is representative of the hazardous secondary material composition stored or treated in the tank.
  - 3) Direct measurement to determine the maximum organic vapor pressure of a hazardous secondary material.
    - A) Sampling. A sufficient number of samples must be collected to be representative of the hazardous secondary material contained in the tank. All samples must be collected and handled in accordance



with written procedures prepared by the remanufacturer or other person that stores or treats the hazardous secondary material and documented in a site sampling plan. This plan must describe the procedure by which representative samples of the hazardous secondary material are collected such that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan must be maintained at the facility. An example of acceptable sample collection and handling procedures may be found in Reference Method 25D (Determination of the Volatile Organic Concentration of Waste Samples) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b).

- B) Analysis. Any appropriate one of the following methods may be used to analyze the samples and compute the maximum organic vapor pressure of the hazardous secondary material:
- i) Reference Method 25E (Determination of Vapor Phase Organic Concentration in Waste Samples) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b);
  - ii) Methods described in American Petroleum Institute Publication 2517, Third Edition, February 1989, "Evaporative Loss from External Floating-Roof Tanks," incorporated by reference in 35 Ill. Adm. Code 720.111;
  - iii) Methods obtained from standard reference texts;
  - iv) ASTM Method 2879-92, incorporated by reference in 35 Ill. Adm. Code 720.111; and
  - v) Any other method approved in writing by the Agency.
- 4) Use of knowledge to determine the maximum organic vapor pressure of the hazardous secondary material. Documentation must be prepared and recorded that presents the information used as the basis for the knowledge by the remanufacturer or other person that stores or treats the hazardous secondary material that the maximum organic vapor pressure of the hazardous secondary material is less than the maximum vapor pressure limit listed in Section 721.9085(b)(1)(A) for the applicable tank design capacity category. An example of information that may be used is documentation that the hazardous secondary material is generated by a process for which at other locations it previously has been determined by direct measurement that the hazardous secondary material's maximum

organic vapor pressure is less than the maximum vapor pressure limit for the appropriate tank design capacity category.

- d) Procedure for determining no detectable organic emissions for the purpose of complying with this Subpart CC:
- 1) The test must be conducted in accordance with the procedures specified in Reference Method 21 (Determination of Volatile Organic Compound Leaks) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111. Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the cover and associated closure devices must be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to, the interface of the cover and its foundation mounting, the periphery of any opening on the cover and its associated closure device, and the sealing seat interface on a spring-loaded pressure relief valve.
  - 2) The test must be performed when the unit contains a hazardous secondary material having an organic concentration representative of the range of concentrations for the hazardous secondary material expected to be managed in the unit. During the test, the cover and closure devices must be secured in the closed position.
  - 3) The detection instrument must meet the performance criteria of Reference Method 21, except the instrument response factor criteria in section 3.1.2(a) of Reference Method 21 must be for the average composition of the organic constituents in the hazardous secondary material placed in the hazardous secondary management unit, not for each individual organic constituent.
  - 4) The detection instrument must be calibrated before use on each day of its use by the procedures specified in Reference Method 21.
  - 5) Calibration gases must be as follows:
    - A) Zero air (less than 10 ppmv hydrocarbon in air), and
    - B) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppmv methane or n-hexane.
  - 6) The background level must be determined according to the procedures in Reference Method 21.
  - 7) Each potential leak interface must be checked by traversing the instrument probe around the potential leak interface as close to the interface as possible, as described in Reference Method 21. Where the configuration of the cover or closure device prevents a complete traverse of the interface, all accessible portions of the interface must be sampled. Where

the configuration of the closure device prevents any sampling at the interface and the device is equipped with an enclosed extension or horn (e.g., some pressure relief devices), the instrument probe inlet must be placed at approximately the center of the exhaust area to the atmosphere.

- 8) The arithmetic difference between the maximum organic concentration indicated by the instrument and the background level must be compared with the value of 500 ppmv except when monitoring a seal around a rotating shaft that passes through a cover opening, in which case the comparison must be as specified in subsection (d)(9). If the difference is less than 500 ppmv, then the potential leak interface is determined to operate with no detectable organic emissions.
- 9) For the seals around a rotating shaft that passes through a cover opening, the arithmetic difference between the maximum organic concentration indicated by the instrument and the background level must be compared with the value of 10,000 ppmw. If the difference is less than 10,000 ppmw, then the potential leak interface is determined to operate with no detectable organic emissions.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.984 Standards: Tanks**

- a) The provisions of this Section apply to the control of air pollutant emissions from tanks for which Section 721.982(b) references the use of this Section for such air emission control.
- b) The remanufacturer or other person that stores or treats the hazardous secondary material must 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 secondary material that meets all of the conditions specified in subsections (b)(1)(A) through (b)(1)(C), the remanufacturer or other person that stores or treats the hazardous secondary material must control air pollutant emissions from the tank in accordance with the Tank Level 1 controls specified in subsection (c) or the Tank Level 2 controls specified in subsection (d).
- A) The hazardous secondary material 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>, the maximum organic vapor pressure limit for the tank is 5.2 kPa.

- ii) For a tank design capacity equal to or greater than 75 m<sup>3</sup> but less than 151 m<sup>3</sup>, the maximum organic vapor pressure limit for the tank is 27.6 kPa.
  - iii) For a tank design capacity less than 75 m<sup>3</sup>, the maximum organic vapor pressure limit for the tank is 76.6 kPa.
- B) The hazardous secondary material in the tank is not heated by the remanufacturer or other person that stores or treats the hazardous secondary material to a temperature that is greater than the temperature at which the maximum organic vapor pressure of the hazardous secondary material is determined for the purpose of complying with subsection (b)(1)(A).
- 2) For a tank that manages hazardous secondary material that does not meet all of the conditions specified in subsections (b)(1)(A) through (b)(1)(C), the remanufacturer or other person that stores or treats the hazardous secondary material must control air pollutant emissions from the tank by using Tank Level 2 controls in accordance with the requirements of subsection (d). An example of tanks required to use Tank Level 2 controls is a tank for which the hazardous secondary material 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).
- c) A remanufacturer or other person that stores or treats the hazardous secondary material 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 remanufacturer or other person that stores or treats that hazardous secondary material must determine the maximum organic vapor pressure for a hazardous secondary material to be managed in the tank using Tank Level 1 controls before the first time the hazardous secondary material is placed in the tank. The maximum organic vapor pressure must be determined using the procedures specified in Section 721.983(c). Thereafter, the remanufacturer or other person that stores or treats the hazardous secondary material must perform a new determination whenever changes to the hazardous secondary material 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), 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 secondary material 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 joints or between the interface of the roof edge and the tank wall.
- C) Each opening in the fixed roof, and any manifold system associated with the fixed roof, must fulfill either of the following requirements:
- i) It must be 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) It must be 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 must be operating whenever hazardous secondary material is managed in the tank, except as provided in this subsection (c)(2)(C)(ii). During any period of routine inspection, maintenance, or other activities needed for normal operations, and for removal of accumulated sludge or other residues from the bottom of the tank. During any period when it is necessary to provide access to the tank for performing the foregoing activities, venting of the vapor headspace underneath the fixed roof to the control device is not required, opening of closure devices is allowed, and removal of the fixed roof is allowed. Following completion of the activity, the remanufacturer or other person that stores or treats the hazardous secondary material must promptly secure the closure device in the closed position or reinstall the cover, as applicable, and resume operation of the control device.

BOARD NOTE: This subsection (c)(2)(C)(ii) corresponds with 40 CFR 261.1083(c)(2)(iii)(B). The Board combined the texts of 40 CFR 261.1083(c)(2)(iii)(B)(1) and (c)(2)(iii)(B)(2) into this single subsection to comport with codification requirements.

D) The fixed roof and its closure devices must be made of suitable materials that will minimize exposure of the hazardous secondary material 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 organic vapor permeability; the effects of any contact with the hazardous secondary material 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 secondary material 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 remanufacturer or other person that stores or treats the hazardous secondary material must 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 remanufacturer or other person that stores or treats the hazardous secondary material 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 721.981, is allowed at any time conditions require doing so to avoid an unsafe condition.

4) The remanufacturer or other person that stores or treats the hazardous secondary material must 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 remanufacturer or other person that stores or treats the hazardous secondary material 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 remanufacturer or other person that stores or treats the hazardous secondary material must 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 remanufacturer or other person that stores or treats the hazardous secondary material must perform the inspections at least once every year except under the special conditions provided for in subsection (l).

C) In the event that a defect is detected, the remanufacturer or other person that stores or treats the hazardous secondary material must repair the defect in accordance with the requirements of subsection (k).

D) The remanufacturer or other person that stores or treats the hazardous secondary material must maintain a record of the inspection in accordance with the requirements specified in Section 721.989(b).

d) Remanufacturers or other persons that store or treat the hazardous secondary material 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);
  - 2) A tank equipped with an external floating roof in accordance with the requirements specified in subsection (f);
  - 3) A tank vented through a closedvent system to a control device in accordance with the requirements specified in subsection (g);
  - 4) A pressure tank designed and operated in accordance with the requirements specified in subsection (h); 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).
- e) The remanufacturer or other person that stores or treats the hazardous secondary material who controls air pollutant emissions from a tank using a fixed roof with an internal floating roof must meet the requirements specified in subsections (e)(1) through (e)(3).
- 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 721.981; or
      - ii) Two continuous seals mounted one 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 percent 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 remanufacturer or other person that stores or treats the hazardous secondary material must 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 remanufacturer or other person that stores or treats the hazardous secondary material must 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 remanufacture or other person that stores or treats the hazardous secondary material to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, the internal floating roof is not floating on the surface of the liquid inside the tank; liquid has accumulated on top of the internal floating roof; any portion of the roof seals have detached from the roof rim; holes, tears, or other openings are visible in the seal

fabric; the gaskets no longer close off the hazardous secondary material surface from the atmosphere; or the slotted membrane has more than 10 percent open area.

- B) The remanufacturer or other person that stores or treats the hazardous secondary material must inspect the internal floating roof components as follows, except as provided in subsection (e)(3)(C):
- i) It must 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) It must 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 every 10 years.
- C) As an alternative to performing the inspections specified in subsection (e)(3)(B), for an internal floating roof equipped with two continuous seals mounted one above the other, the remanufacturer or other person that stores or treats the hazardous secondary material must 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), the remanufacturer or other person that stores or treats the hazardous secondary material must notify the Agency in advance of each inspection to provide the Agency with the opportunity to have an observer present during the inspection. The remanufacturer or other person that stores or treats the hazardous secondary material must 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 remanufacturer or other person that stores or treats the hazardous secondary material 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).

- ii) When a visual inspection is not planned and the remanufacturer or other person that stores or treats the hazardous secondary material could not have known about the inspection 30 calendar days before refilling the tank, the remanufacturer or other person that stores or treats the hazardous secondary material must 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 remanufacturer or other person that stores or treats the hazardous secondary material must repair the defect in accordance with the requirements of subsection (k).
  
- F) The remanufacturer or other person that stores or treats the hazardous secondary material must maintain a record of the inspection in accordance with the requirements specified in Section 721.989(b).
  
- 4) Safety devices, as defined in Section 721.981, may be installed and operated as necessary on any tank complying with the requirements of subsection (e).
  
- f) The remanufacturer or other person that stores or treats the hazardous secondary material who controls air pollutant emissions from a tank using an external floating roof must meet the requirements specified in subsections (f)(1) through (f)(3).
  - 1) The remanufacturer or other person that stores or treats the hazardous secondary material must 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 721.981. The total area of the gaps between the tank wall and the primary seal must not exceed 212 square centimeters (cm<sup>2</sup>) per meter of tank diameter, and the width of any portion of these gaps must not exceed 3.8 centimeters (cm). 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 square centimeters (cm<sup>2</sup>) per meter of tank diameter, and the width of any portion of these gaps must not exceed 1.3 centimeters (cm).
- 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 percent 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 remanufacturer or other person that stores or treats the hazardous secondary material must 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 remanufacturer or other person that stores or treats the hazardous secondary material must inspect the external floating roof in accordance with the following procedures:

- A) The remanufacturer or other person that stores or treats the hazardous secondary material must measure the external floating roof seal gaps in accordance with the following requirements:
- i) The remanufacturer or other person that stores or treats the hazardous secondary material must 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 remanufacturer or other person that stores or treats the hazardous secondary material must 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 secondary material for a period of one year or more, subsequent introduction of hazardous secondary material into the tank must be considered an initial operation for the purposes of subsections (f)(3)(A)(i) and (f)(3)(A)(ii).
  - iv) The remanufacturer or other person that stores or treats the hazardous secondary material must determine the total surface area of gaps in the primary seal and in the secondary seal individually using the procedure described in subsection (f)(3)(D):  
  
BOARD NOTE: The Board moved corresponding 40 CFR 261.1084(f)(3)(i)(D)(1) through (f)(3)(i)(D)(4) to appear as subsections (f)(3)(D)(i) through (f)(3)(A)(iv) to comport with codification requirements.
  - v) In the event that the seal gap measurements do not conform to the specifications in subsection (f)(1)(B), the remanufacturer or other person that stores or treats the hazardous secondary material must repair the defect in accordance with the requirements of subsection (k).
  - vi) The remanufacturer or other person that stores or treats the hazardous secondary material must maintain a record of the inspection in accordance with the requirements specified in Section 721.989(b).

- B) The remanufacturer or other person that stores or treats the hazardous secondary material must 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 remanufacturer or other person that stores or treats the hazardous secondary material to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, 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 remanufacturer or other person that stores or treats the hazardous secondary material must 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 remanufacturer or other person that stores or treats the hazardous secondary material must perform the inspections at least once every year except for the special conditions provided for in subsection (l).
  - iii) In the event that a defect is detected, the remanufacturer or other person that stores or treats the hazardous secondary material must repair the defect in accordance with the requirements of subsection (k).
  - iv) The remanufacturer or other person that stores or treats the hazardous secondary material must maintain a record of the inspection in accordance with the requirements specified in Section 721.989(b).
- C) Prior to each inspection required by subsection (f)(3)(A) or (f)(3)(B), the remanufacturer or other person that stores or treats the hazardous secondary material must notify the Agency in advance of each inspection to provide the Agency with the opportunity to have an observer present during the inspection. The remanufacturer or other person that stores or treats the hazardous secondary material must 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), written notification must be prepared and sent by the remanufacturer or other person that stores or treats the hazardous secondary material 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 remanufacturer or other person that stores or treats the hazardous secondary material 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).
  - iii) When a visual inspection is not planned and the remanufacturer or other person that stores or treats the hazardous secondary material could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator must 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 in the secondary seal individually.
- 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-centimeter (cm) 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), 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 diameter 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).

BOARD NOTE: The texts of corresponding 40 CFR 261.1084(f)(3)(i)(D)(1) through (f)(3)(i)(D)(4), which would normally appear in subsection (f)(3)(A)(iv), appear as subsections (f)(3)(D)(i) through (f)(3)(A)(iv) to comport with codification requirements.

- 4) Safety devices, as defined in Section 721.981, may be installed and operated as necessary on any tank complying with the requirements of subsection (f).
- g) The remanufacturer or other person that stores or treats the hazardous secondary material who controls air pollutant emissions from a tank by venting the tank to a control device must meet the requirements specified in subsections (g)(1) through (g)(3).
- 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 secondary material 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, 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 721.987.

2) Whenever a hazardous secondary material 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 remanufacturer or other person that stores or treats the hazardous secondary material must 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 721.981, is allowed at any time conditions require doing so to avoid an unsafe condition.

3) The remanufacturer or other person that stores or treats the hazardous secondary material must 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 remanufacturer or other person that stores or treats the hazardous secondary material 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 closed-vent system and control device must be inspected and monitored by the remanufacturer or other person that stores or treats the hazardous secondary material in accordance with the procedures specified in Section 721.987.
  - C) The remanufacturer or other person that stores or treats the hazardous secondary material must 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 remanufacturer or other person that stores or treats the hazardous secondary material must perform the inspections at least once every year except for the special conditions provided for in subsection (l).
  - D) In the event that a defect is detected, the remanufacture or other person that stores or treats the hazardous secondary material must repair the defect in accordance with the requirements of subsection (k).
  - E) The remanufacturer or other person that stores or treats the hazardous secondary material must maintain a record of the inspection in accordance with the requirements specified in Section 721.989(b).
- h) The remanufacturer or other person that stores or treats the hazardous secondary material who 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 721.983(d).
  - 3) Whenever a hazardous secondary material is in the tank, the tank must be operated as a closed system that does not vent to the atmosphere, except

under either or the following conditions described in subsection (h)(3)(A) or (h)(3)(B).

- A) At those times when opening of a safety device, as defined in Section 721.981, is required to avoid an unsafe condition.
  - B) At those times when purging of inerts from the tank is required and the purge stream is routed to a closed-vent system and control device designed and operated in accordance with the requirements of Section 721.987.
- i) The remanufacturer or other person that stores or treats the hazardous secondary material who controls air pollutant emissions by using an enclosure vented through a closed-vent system to an enclosed combustion control device must meet the following requirements:
- 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” in appendix B to 40 CFR 52.741, 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 remanufacturer or other person that stores or treats the hazardous secondary material must 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 annually thereafter.
  - 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 721.987.
  - 3) Safety devices, as defined in Section 721.981, 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).
  - 4) The remanufacturer or other person that stores or treats the hazardous secondary material must inspect and monitor the closed-vent system and control device, as specified in Section 721.987.
- j) The remanufacturer or other person that stores or treats the hazardous secondary material must transfer hazardous secondary material to a tank subject to this section in accordance with the following requirements:

- 1) Transfer of hazardous secondary material, except as provided in subsection (j)(2), to the tank from another tank subject to this section must be conducted using continuous hard-piping or another closed system that does not allow exposure of the hazardous secondary material 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 subpart RR of 40 CFR 63 (National Emission Standards for Individual Drain Systems), incorporated by reference in 35 Ill. Adm. Code 720.111.
- 2) The requirements of subsection (j)(1) do not apply when transferring a hazardous secondary material to the tank under any of the following conditions:
  - A) The hazardous secondary material meets the average VO concentration conditions specified in Section 721.982(c)(1) at the point of material origination.
  - B) The hazardous secondary material has been treated by an organic destruction or removal process to meet the requirements in Section 721.982(c)(2).
  - C) The hazardous secondary material meets the requirements of Section 721.982(c)(4).
- k) The remanufacturer or other person that stores or treats the hazardous secondary material must repair each defect detected during an inspection performed in accordance with the requirements of subsection (c)(4), (e)(3), (f)(3), or (g)(3), as follows:
  - 1) The remanufacturer or other person that stores or treats the hazardous secondary material must 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).
  - 2) Repair of a defect may be delayed beyond 45 calendar days if the remanufacturer or other person that stores or treats the hazardous secondary material 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 secondary material normally managed in the tank. In this case, the remanufacturer or other person that stores or treats the hazardous secondary material must repair the defect the next time the process or unit that is generating the hazardous secondary material 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 CC, 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 remanufacturer or other person that stores or treats the hazardous secondary material 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 CC, 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, a remanufacturer or other person that stores or treats the hazardous secondary material 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: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.986 Standards: Containers**

- a) Applicability. The provisions of this Section apply to the control of air pollutant emissions from containers for which Section 721.982(b) references the use of this Section for such air emission control.
- b) General requirements.
  - 1) The remanufacturer or other person that stores or treats the hazardous secondary material must control air pollutant emissions from each container subject to this Section in accordance with the following requirements, as applicable to the container.
    - A) For a container having a design capacity greater than 0.1 m<sup>3</sup> and less than or equal to 0.46 m<sup>3</sup>, the remanufacturer or other person that stores or treats the hazardous secondary material must control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c).

- B) For a container having a design capacity greater than 0.46 m<sup>3</sup> that is not in light material service, the remanufacturer or other person that stores or treats the hazardous secondary material must control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c).
  - C) For a container having a design capacity greater than 0.46 m<sup>3</sup> that is in light material service, the remanufacturer or other person that stores or treats the hazardous secondary material must control air pollutant emissions from the container in accordance with the Container Level 2 standards specified in subsection (d).
- 2) This subsection (b)(2) corresponds with 40 CFR 261.1086(b)(2), marked “reserved” by USEPA. This statement maintains structural consistency with the federal regulations
- c) Container Level 1 standards.
- 1) A container using Container Level 1 controls is one of the following:
    - A) A container that meets the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation, as specified in subsection (f).
    - B) A container equipped with a cover and closure devices that form a continuous barrier over the container openings such that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container (e.g., a lid on a drum or a suitably secured tarp on a roll-off box) or may be an integral part of the container structural design (e.g., a “portable tank” or bulk cargo container equipped with a screw-type cap).
    - C) An open-top container in which an organic-vapor suppressing barrier is placed on or over the hazardous secondary material in the container such that no hazardous secondary material is exposed to the atmosphere. One example of such a barrier is application of a suitable organic-vapor suppressing foam.
  - 2) A container used to meet the requirements of subsection (c)(1)(B) or (c)(1)(C) must be equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the hazardous secondary material to the atmosphere and to maintain the equipment integrity, for as long as the container is in service. Factors to be considered in selecting the materials of construction and designing the cover and closure devices must include, organic vapor permeability; the effects of contact with the hazardous secondary material

or its vapor managed in the container; the effects of outdoor exposure of the closure device or cover material to wind, moisture, and sunlight; and the operating practices for which the container is intended to be used.

- 3) Whenever a hazardous secondary material is in a container using Container Level 1 controls, the remanufacturer or other person that stores or treats the hazardous secondary material must install all covers and closure devices for the container, as applicable to the container, and secure and maintain each closure device in the closed position except as follows:
- A) Opening of a closure device or cover is allowed for the purpose of adding hazardous secondary material or other material to the container as follows:
- i) In the case when the container is filled to the intended final level in one continuous operation, the remanufacturer or other person that stores or treats the hazardous secondary material must promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.
  - ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the remanufacturer or other person that stores or treats the hazardous secondary material must promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the hazardous secondary material being added to the container, whichever condition occurs first.
- B) Opening of a closure device or cover is allowed for the purpose of removing hazardous secondary material from the container, as follows:
- i) For the purpose of meeting the requirements of this section, an empty hazardous secondary material container may be open to the atmosphere at any time (i.e., covers and closure devices on such a container are not required to be secured in the closed position).
  - ii) In the case when discrete quantities or batches of material are removed from the container, but the container is not an



empty hazardous secondary material container, the remanufacturer or other person that stores or treats the hazardous secondary material must promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

- C) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous secondary material. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the remanufacturer or other person that stores or treats the hazardous secondary material must promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.
- D) 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 internal pressure of the container in accordance with the container 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 internal pressure of the container is within the internal pressure operating range determined by the remanufacturer or other persons that stores or treats the hazardous secondary material based on container 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 internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.
- E) Opening of a safety device, as defined in Section 721.981, is allowed at any time conditions require doing so to avoid an unsafe condition.

- 4) The remanufacturer or other person that stores or treats the hazardous secondary material using containers with Container Level 1 controls must inspect the containers and their covers and closure devices, as follows:
- A) In the case when a hazardous secondary material already is in the container at the time the remanufacturer or other person that stores or treats the hazardous secondary material first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility (i.e., is not an empty hazardous secondary material container) the remanufacturer or other person that stores or treats the hazardous secondary material must visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection must be conducted on or before the date that the container is accepted at the facility (i.e., the date the container becomes subject to the container standards of this Subpart CC).
  - B) In the case when a container used for managing hazardous secondary material remains at the facility for a period of one year or more, the remanufacturer or other person that stores or treats the hazardous secondary material must visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the remanufacturer or other person that stores or treats the hazardous secondary material must repair the defect in accordance with the requirements of subsection (c)(4)(C).
  - C) When a defect is detected for the container, cover, or closure devices, the remanufacturer or other person that stores or treats the hazardous secondary material must make first efforts at repair of the defect no later than 24 hours after detection and repair must be completed as soon as possible but no later than five calendar days after detection. If repair of a defect cannot be completed within five calendar days, then the hazardous secondary material must be removed from the container and the container must not be used to manage hazardous secondary material until the defect is repaired.
- 5) The remanufacturer or other person that stores or treats the hazardous secondary material must maintain at the facility a copy of the procedure used to determine that containers with capacity of 0.46 m<sup>3</sup> or greater, which do not meet applicable DOT regulations as specified in subsection

(f), are not managing hazardous secondary material in light material service.

d) Container Level 2 standards.

- 1) A container using Container Level 2 controls is one of the following:
  - A) A container that meets the applicable USDOT regulations on packaging hazardous materials for transportation, as specified in subsection (f).
  - B) A container that operates with no detectable organic emissions, as defined in Section 721.981, and determined in accordance with the procedure specified in subsection (g).
  - C) A container that has been demonstrated within the preceding 12 months to be vapor-tight by using Reference Method 27 (Determination of Vapor Tightness of Gasoline Delivery Tank Unis Pressure-Vacuum Test) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111, in accordance with the procedure specified in subsection (h).
- 2) Transfer of hazardous secondary material in or out of a container using Container Level 2 controls must be conducted in such a manner as to minimize exposure of the hazardous secondary material to the atmosphere, to the extent practical, considering the physical properties of the hazardous secondary material and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that USEPA has stated that it considers to meet the requirements of this subsection (d) include using any one of the following: a submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous secondary material is filled and subsequently purging the transfer line before removing it from the container opening.
- 3) Whenever a hazardous secondary material is in a container using Container Level 2 controls, the remanufacturer or other person that stores or treats the hazardous secondary material must install all covers and closure devices for the container, and secure and maintain each closure device in the closed position, except as follows:
  - A) Opening of a closure device or cover is allowed for the purpose of adding hazardous secondary material or other material to the container, as follows:

- i) In the case when the container is filled to the intended final level in one continuous operation, the remanufacturer or other person that stores or treats the hazardous secondary material must promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.
  - ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the remanufacturer or other person that stores or treats the hazardous secondary material must promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.
- B) Opening of a closure device or cover is allowed for the purpose of removing hazardous secondary material from the container, as follows:
- i) For the purpose of meeting the requirements of this Section, an empty hazardous secondary material container may be open to the atmosphere at any time (i.e., covers and closure devices are not required to be secured in the closed position on an empty container).
  - ii) In the case when discrete quantities or batches of material are removed from the container, but the container is not an empty hazardous secondary materials container, the remanufacturer or other person that stores or treats the hazardous secondary material must promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.
- C) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous secondary material. Examples of such activities include those times when a worker needs to open a port

to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the remanufacturer or other person that stores or treats the hazardous secondary material must promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.

D) 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 internal pressure of the container in accordance with the container design specifications. The device must be designed to operate with no detectable organic emission 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 internal pressure of the container is within the internal pressure operating range determined by the remanufacturer or other person that stores or treats the hazardous secondary material based on container 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 internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

E) Opening of a safety device, as defined in Section 721.981, is allowed at any time conditions require doing so to avoid an unsafe condition.

4) The remanufacture or other person that stores or treats the hazardous secondary material using containers with Container Level 2 controls must inspect the containers and their covers and closure devices as follows:

A) In the case when a hazardous secondary material already is in the container at the time the remanufacturer or other person that stores or treats the hazardous secondary material first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility (i.e., is not an empty hazardous secondary material container), the remanufacturer or other person that stores or treats the hazardous secondary material must visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the

cover and closure devices are secured in the closed position. The container visual inspection must be conducted on or before the date that the container is accepted at the facility (i.e., the date the container becomes subject to the container standards of this Subpart CC).

- B) In the case when a container used for managing hazardous secondary material remains at the facility for a period of one year or more, the remanufacturer or other person that stores or treats the hazardous secondary material must visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the remanufacturer or other person that stores or treats the hazardous secondary material must repair the defect in accordance with the requirements of subsection (d)(4)(C).
- C) When a defect is detected for the container, cover, or closure devices, the remanufacturer or other person that stores or treats the hazardous secondary material must make first efforts at repair of the defect no later than 24 hours after detection, and repair must be completed as soon as possible but no later than five calendar days after detection. If repair of a defect cannot be completed within five calendar days, then the hazardous secondary material must be removed from the container and the container must not be used to manage hazardous secondary material until the defect is repaired.

e) Container Level 3 standards.

- 1) A container using Container Level 3 controls is one of the following:
- A) A container that is vented directly through a closed-vent system to a control device in accordance with the requirements of subsection (e)(2)(B).
- B) A container that is vented inside an enclosure which is exhausted through a closed-vent system to a control device in accordance with the requirements of subsections (e)(2)(A) and (e)(2)(B).
- 2) The remanufacturer or other person that stores or treats the hazardous secondary material must meet the following requirements, as applicable to the type of air emission control equipment selected by the remanufacturer or other person that stores or treats the hazardous secondary material:
- A) The container 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” in appendix B (VOM Measurement Techniques for Capture Efficiency) to 40 CFR 52.741, incorporated by reference in 35 Ill. Adm. Code 720.111. The enclosure may have permanent or temporary openings to allow worker access; passage of containers through the enclosure by conveyor or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The remanufacturer or other person that stores or treats the hazardous secondary material must 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.

- B) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 721.987.
- 3) Safety devices, as defined in Section 721.981, may be installed and operated as necessary on any container, enclosure, closed-vent system, or control device used to comply with the requirements of subsection (e)(1).
- 4) Remanufacturers or other persons that store or treat the hazardous secondary material using Container Level 3 controls in accordance with the provisions of this Subpart CC must inspect and monitor the closed-vent systems and control devices as specified in Section 721.987.
- 5) Remanufacturers or other persons that store or treat the hazardous secondary material that use Container Level 3 controls in accordance with the provisions of this Subpart CC must prepare and maintain the records specified in Section 721.989(d).
- 6) Transfer of hazardous secondary material in or out of a container using Container Level 3 controls must be conducted in such a manner as to minimize exposure of the hazardous secondary material to the atmosphere, to the extent practical, considering the physical properties of the hazardous secondary material and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that USEPA has stated that it considers to meet the requirements of this subsection (e) include using any one of the following: a submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous secondary material is filled and subsequently purging the transfer line before removing it from the container opening.

- f) For the purpose of compliance with subsection (c)(1)(A) or (d)(1)(A), containers must be used that meet the applicable U.S. Department of Transportation (USDOT) regulations on packaging hazardous materials for transportation, as follows:
- 1) The container meets the applicable requirements specified in 49 CFR 178 (Specifications for Packagings) or 179 (Specifications for Tank Cars), each incorporated by reference in 35 Ill. Adm. Code 720.111.
  - 2) Hazardous secondary material is managed in the container in accordance with the applicable requirements specified in subpart B of 49 CFR 107 (Hazardous Material Program Procedures) and 49 CFR 172 (Hazardous Materials Table, Special Provisions, hazardous Materials Communications, Emergency Response Information, Training Requirements, and Security Plans), 173 (Shippers—General Requirements for Shipments and Packagings), and 180 (Continuing Qualification and Maintenance of Packagings), incorporated by reference in 35 Ill. Adm. Code 720.111.
  - 3) For the purpose of complying with this Subpart CC, no exceptions to the 49 CFR 178 (Specifications for Packagings) or 179 (Specifications for Tank Cars) regulations are allowed.
- g) To determine compliance with the no detectable organic emissions requirement of subsection (d)(1)(B), the procedure specified in Section 721.983(d) must be used.
- 1) Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the container, its cover, and associated closure devices, as applicable to the container, must be checked. Potential leak interfaces that are associated with containers include, but are not limited to: the interface of the cover rim and the container wall; the periphery of any opening on the container or container cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.
  - 2) The test must be performed when the container is filled with a material having a volatile organic concentration representative of the range of volatile organic concentrations for the hazardous secondary materials expected to be managed in this type of container. During the test, the container cover and closure devices must be secured in the closed position.
- h) Procedure for determining a container to be vapor-tight using Reference Method 27 (Determination of Vapor Tightness of Gasoline Delivery Tank Units Pressure-Vacuum Test) in appendix A (Test Methods) to 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111, for the purpose of complying with subsection (d)(1)(C).
- 1) The test must be performed in accordance with Reference Method 27 of appendix A to 40 CFR 60.



- 2) A pressure measurement device must be used that has a precision of  $\pm 2.5$  mm water and that is capable of measuring above the pressure at which the container is to be tested for vapor tightness.
- 3) If the test results determined by Reference Method 27 indicate that the container sustains a pressure change less than or equal to 750 Pascals within five minutes after it is pressurized to a minimum of 4,500 Pascals, then the container is determined to be vapor-tight.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.987 Standards: Closed-Vent Systems and Control Devices**

- a) This Section applies to each closed-vent system and control device installed and operated by the remanufacturer or other person who stores or treats the hazardous secondary material to control air emissions in accordance with standards of this Subpart CC.
- 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 secondary material in the hazardous secondary material management unit to a control device that meets the requirements specified in subsection (c).
  - 2) The closed-vent system must be designed and operated in accordance with the requirements specified in Section 721.933(k).
  - 3) In the case 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) or a seal or locking device as specified in subsection (b)(3)(B). For the purpose of complying with this subsection (b), 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 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 this subsection (b), 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 subsection (b)(3), the device must be placed on the mechanism by which the bypass device position is controlled (e.g., valve handle, damper lever, etc.)

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 remanufacturer or other person that stores or treats the hazardous secondary material must 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 remanufacturer or other person that stores or treats the hazardous secondary material in accordance with the procedure specified in Section 721.933(l).

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 percent by weight;

B) An enclosed combustion device designed and operated in accordance with the requirements of Section 721.933(c); or

C) A flare designed and operated in accordance with the requirements of Section 721.933(d).

2) The remanufacturer or other person that stores or treats the hazardous secondary material who elects to use a closed-vent system and control device to comply with the requirements of this section must comply with the requirements specified in subsections (c)(2)(A) through (c)(2)(F).

A) Periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of subsection (c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable, must not exceed 240 hours per year.

B) The specifications and requirements in subsections (c)(1)(A) through (C) for control devices do not apply during periods of planned routine maintenance.

C) The specifications and requirements in subsections (c)(1)(A) through (C) for control devices do not apply during a control device system malfunction.

D) The remanufacturer or other person that stores or treats the hazardous secondary material must demonstrate compliance with

the requirements of subsection (c)(2)(A) (i.e., planned routine maintenance of a control device, during which the control device does not meet the specifications of subsection (c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable, must not exceed 240 hours per year) by recording the information specified in Section 721.989(e)(1)(E).

E) The remanufacturer or other person that stores or treats the hazardous secondary material must correct control device system malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of air pollutants.

F) The remanufacturer or other person that stores or treats the hazardous secondary material must operate the closed-vent system such 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 remanufacturer or other person that stores or treats the hazardous secondary material using a carbon adsorption system to comply with subsection (c)(1) must 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 721.933(g) or (h).

B) All carbon that is hazardous waste and that is removed from the control device must be managed in accordance with the requirements of Section 721.933(n), regardless of the average volatile organic concentration of the carbon.

4) A remanufacturer or other person that stores or treats the hazardous secondary material 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) must operate and maintain the control device in accordance with the requirements of Section 721.933(j).

5) The remanufacturer or other person that stores or treats the hazardous secondary material must demonstrate that a control device achieves the performance requirements of subsection (c)(1) as follows:

A) A remanufacturer or other person that stores or treats the hazardous secondary material must demonstrate the performance of each

control device, using either a performance test, as specified in subsection (c)(5)(C), or a design analysis, as specified in subsection (c)(5)(D), except for the following:

- i) A flare;
  - ii) A boiler or process heater with a design heat input capacity of 44 megawatts or greater; or
  - iii) A boiler or process heater into which the vent stream is introduced with the primary fuel.
- B) A remanufacturer or other person that stores or treats the hazardous secondary material must demonstrate the performance of each flare in accordance with the requirements specified in Section 721.933(e).
- C) For a performance test conducted to meet the requirements of subsection (c)(5)(A), the remanufacturer or other person that stores or treats the hazardous secondary material must use the test methods and procedures specified in Section 721.934(c)(1) through (c)(4).
- D) For a design analysis conducted to meet the requirements of subsection (c)(5)(A), the design analysis must meet the requirements specified in Section 721.935(b)(4)(C).
- E) The remanufacturer or other person that stores or treats the hazardous secondary material must demonstrate that a carbon adsorption system achieves the performance requirements of subsection (c)(1) 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 remanufacturer or other person that stores or treats the hazardous secondary material 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 remanufacturer or other person that stores or treats the hazardous secondary material in accordance with the requirements of subsection (c)(5)(C). The Agency may choose to have an authorized representative observe the performance test. The Agency must state any disagreement on a demonstration of control device performance using a design analysis in writing to the remanufacturer or other person that treats or stores hazardous secondary material.

- 7) The closed-vent system and control device must be inspected and monitored by the remanufacture or other person that stores or treats the hazardous secondary material in accordance with the procedures specified in Section 721.933(f)(2) and (l). The readings from each monitoring device required by Section 721.933(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: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.988 Inspection and Monitoring Requirements**

- a) The remanufacturer or other person that stores or treats the hazardous secondary material must inspect and monitor air emission control equipment used to comply with this Subpart CC in accordance with the applicable requirements specified in Sections 721.984 through 261.987.
- b) The remanufacture or other person that stores or treats the hazardous secondary material must develop and implement a written plan and schedule to perform the inspections and monitoring required by subsection (a). The remanufacturer or other person that stores or treats the hazardous secondary material must keep the plan and schedule at the facility.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 721.989 Recordkeeping Requirements**

- a) Each remanufacturer or other person that stores or treats the hazardous secondary material subject to requirements of this Subpart CC must record and maintain the information specified in subsections (b) through (j), as applicable to the facility. Except for air emission control equipment design documentation and information required by subsections (i) and (j), records required by this section must be maintained at the facility for a minimum of three years. Air emission control equipment design documentation must be maintained at the facility until the air emission control equipment is replaced or otherwise no longer in service. Information required by subsections (i) and (j) must be maintained at the facility for as long as the hazardous secondary material management unit is not using air emission controls specified in Sections 721.984 through 261.987 in accordance with the conditions specified in Section 721.980(b)(7) or (d), respectively.
- b) The remanufacturer or other person that stores or treats the hazardous secondary material using a tank with air emission controls in accordance with the requirements of Section 721.984 must 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 721.984, the remanufacturer or other person that stores or treats the hazardous secondary material must record:
  - A) A tank identification number (or other unique identification description as selected by the remanufacturer or other person that stores or treats the hazardous secondary material).
  - B) A record for each inspection required by Section 721.984 that includes the following information:
    - i) The date inspection was conducted.
    - ii) For each defect detected during the inspection, 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 requirements of Section 721.984, the remanufacturer or other person that stores or treats the hazardous secondary material must 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), the remanufacturer or other person that stores or treats the hazardous secondary material must record the following information, as applicable to the tank:
  - A) The remanufacturer or other person that stores or treats the hazardous secondary material using a fixed roof to comply with the Tank Level 1 control requirements specified in Section 721.984(c) must prepare and maintain records for each determination for the maximum organic vapor pressure of the hazardous secondary material in the tank performed in accordance with the requirements of Section 721.984(c) of this Subpart. The records must include the date and time the samples were collected, the analysis method used, and the analysis results.
  - B) The remanufacturer or other person that stores or treats the hazardous secondary material using an internal floating roof to comply with the Tank Level 2 control requirements specified in Section 721.1084(e) of this Subpart CC must prepare and maintain documentation describing the floating roof design.
  - C) Remanufacturer or other persons that store or treat the hazardous secondary material using an external floating roof to comply with the Tank Level 2 control requirements specified in Section 721.984(f) must 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 721.984(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 721.984(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 remanufacturer or other person that stores or treats the hazardous secondary material using an enclosure to comply with the Tank Level 2 control requirements specified in Section 721.984(i) must prepare and maintain the following records:
- i) Records for the most recent set of calculations and measurements performed by the remanufacturer or other person that stores or treats the hazardous secondary material 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” in appendix B (VOM Measurement Techniques for Capture Efficiency) to 40 CFR 52.741, 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).
- c) This subsection (c) corresponds with 40 CFR 261.1089(c), marked “reserved” by USEPA. This statement maintains structural consistency with the federal regulations
- d) The remanufacturer or other person that stores or treats the hazardous secondary material using containers with Container Level 3 air emission controls in accordance with the requirements of Section 721.986 must prepare and maintain records that include the following information:
- 1) Records for the most recent set of calculations and measurements performed by the remanufacturer or other person that stores or treats the hazardous secondary material 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” in

appendix B (VOM Measurement Techniques for Capture Efficiency) to 40 CFR 52.741, 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).
- e) The remanufacturer or other person that stores or treats the hazardous secondary material using a closed-vent system and control device in accordance with the requirements of Section 721.987 must 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 remanufacturer or other person that stores or treats the hazardous secondary material 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), or by performance tests as specified in subsection (e)(1)(C) when the tank 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 721.935(b)(4). The documentation must include information prepared by the remanufacturer or other person that stores or treats the hazardous secondary material or provided by the control device manufacturer or vendor that describes the control device design in accordance with Section 721.935(b)(4)(C) and certification by the remanufacturer or other person that stores or treats the hazardous secondary material that the control equipment meets the applicable specifications.
    - C) If performance tests are used, then a performance test plan, as specified in Section 721.935(b)(3), and all test results.
    - D) Information as required by Sections 721.935(c)(1) and (c)(2), as applicable.
    - E) A remanufacturer or other person that stores or treats the hazardous secondary material must record, on a semiannual basis, the information specified in subsections (e)(1)(E)(i) and (e)(1)(E)(ii) for those planned routine maintenance operations that would require the control device not to meet the requirements of Section 721.987(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 721.987(c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable, due to planned routine maintenance.

F) A remanufacturer or other person that stores or treats the hazardous secondary material must record the information specified in subsections (e)(1)(F)(i) through (e)(1)(F)(iii) for those unexpected control device system malfunctions that would require the control device not to meet the requirements of Section 721.987(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 hazardous secondary material management unit through the closedvent 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 721.987(c)(3)(B).

f) The remanufacturer or other person that stores or treats the hazardous secondary material using a tank or container exempted under the hazardous secondary material organic concentration conditions specified in Section 721.982(c)(1) or (c)(2)(A) through (c)(2)(F), must prepare and maintain at the facility records documenting the information used for each material determination (e.g., test results, measurements, calculations, and other documentation). If analysis results for material samples are used for the material determination, then the remanufacturer or other person that stores or treats the hazardous secondary material must record the date, time, and location that each material sample is collected in accordance with applicable requirements of Section 721.983.

BOARD NOTE: Corresponding 40 CFR 261.1089(f) includes a subsection (f)(2) that USEPA marked “reserved.” Because there is no 40 CFR 1089(f)(1), the Board included no text to correspond with subsection (f)(2).

- g) A remanufacturer or other person that stores or treats the hazardous secondary material designating a cover as “unsafe to inspect and monitor” pursuant to Section 721.984(l) or Section 721.985(g) must record and keep at facility the following information: the identification numbers for hazardous secondary material 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 remanufacturer or other person that stores or treats the hazardous secondary material that is subject to this Subpart CC and to the control device standards in subpart VV (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After January 5, 1981, on or Before November 7, 2006) of 40 CFR 60 or subpart V of 40 CFR 61 (National Emission Standard for Equipment Leaks (Fugitive Emission Sources)), each incorporated by reference in 35 Ill. Adm. Code 720.111, may elect to demonstrate compliance with the applicable sections of this Subpart CC by documentation either pursuant to this Subpart CC, or pursuant to the provisions of subpart VV of 40 CFR 60 or subpart V of 40 CFR 61, to the extent that the documentation required by 40 CFR 60 or 61 duplicates the documentation required by this Section.

(Source: Added at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## Section 721.APPENDIX H Hazardous Constituents

Common Name	Chemical Abstracts Name	Chemical Abstracts Number (CAS No.)	USEPA 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	U005
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-1,4,4a,5,8,8a-hexahydro-, (1- $\alpha$ ,4- $\alpha$ ,4a- $\beta$ ,5- $\alpha$ ,8- $\alpha$ ,8a- $\beta$ )-	309-00-2	P004
Allyl alcohol	2-Propen-1-ol	107-18-6	P005
Allyl chloride	1-Propene, 3-chloro-	107-05-1	
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-(amino-methyl)-	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	<del>U119</del> P119
Aniline	Benzenamine	62-53-3	U012
o-Anisidine (2-methoxyaniline)	Benzenamine, 2-Methoxy-	90-04-0	
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	P011
Arsenic trioxide	Arsenic oxide As <sub>2</sub> O <sub>3</sub>	1327-53-3	P012
Auramine	Benzenamine, 4,4'-carbonimidoyl-bis(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-2,2-dimethyl-, methyl carbamate	22781-23-3	U278
Bendiocarb phenol	1,3-Benzodioxol-4-ol-2,2-dimethyl-,	22961-82-6	U364

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	<del>U018</del> U019
Benzene arsonic 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'-(tetrathio-dicarbonothioyl)-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 <sub>2</sub> CrO <sub>4</sub> , calcium salt	13765-19-0	U032
Calcium cyanide	Calcium cyanide Ca(CN) <sub>2</sub>	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-benzofuranyl ester	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-octachloro-2,3,3a,4,7,7a-hexahydro-	57-74-9	U036
Chlordane, $\alpha$ and $\gamma$ 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- $\alpha$ -(4-chlorophenyl)- $\alpha$ -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
$\beta$ -Chloronaphthalene	Naphthalene, 2-chloro-	91-58-7	U047
o-Chlorophenol	Phenol, 2-chloro-	95-57-8	U048
1-(o-Chlorophenyl)thiourea	Thiourea, (2-chlorophenyl)-	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-dimethoxyphenyl)azo)-	6358-53-8	
Coal tar creosote	Same	8007-45-2	
Copper cyanide	Copper cyanide CuCN	544-92-3	P029
Copper dimethyldithiocarbamate	Copper, bis(dimethylcarbamo-dithioato-S,S')-,	137-29-1	
Creosote	Same		U051
p-Cresidine	2-Methoxy-5-methylbenzenamine	120-71-8	
Cresols (Cresylic acid)	Phenol, methyl-	1319-77-3	U052

Crotonaldehyde	2-Butenal	4170-30-3	U053
m-Cumenyl methylcarbamate	Phenol, 3-(methylethyl)-, 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	$\beta$ -D-glucopyranoside, (methyl-ONN-azoxy)methyl-	14901-08-7	
Cycloate	Carbamothioic acid, cyclohexylethyl-, S-ethyl ester	1134-23-2	
2-Cyclohexyl-4,6-dinitrophenol	Phenol, 2-cyclohexyl-4,6-dinitro-	131-89-5	P034
Cyclophosphamide	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)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- $\alpha$ -L-lyxo-hexopyranosyl)oxy)-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-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-dichloroethylidene)bis(4-chloro-	72-54-8	U060
DDE	Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro-	72-55-9	
DDT	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro-	50-29-3	U061
Diallate	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) 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-, (1 $\alpha$ ,2 $\beta$ ,2 $\alpha$ ,3 $\beta$ ,6 $\beta$ ,6 $\alpha$ ,7 $\beta$ ,7 $\alpha$ )-	60-57-1	P037
1,2:3,4-Diepoxybutane	2,2'-Bioxirane	1464-53-5	U085
Diethylarsine	Arsine, diethyl-	692-42-2	P038
Diethylene glycol, dicarbamate	Ethanol, 2,2'-oxybis-, dicarbamate	5952-26-1	U395
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-	1615-80-1	U086
O,O-Diethyl-S-methyl dithiophosphate	Phosphorodithioic acid, O,O-diethyl S-methyl ester	3288-58-2	U087
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-ethenediyl)bis-, (E)-	56-53-1	U089
Dihydrosafrole	1,3-Benzodioxole, 5-propyl-	94-58-6	U090

Diisopropylfluorophosphate (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
3,3'-Dimethoxybenzidine	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethoxy-	119-90-4	U091
p-Dimethylaminoazobenzene	Benzenamine, N,N-dimethyl-4-(phenylazo)-	60-11-7	U093
2,4-Dimethylaniline (2,4-xylydine)	Benzenamine, 2,4-dimethyl-	95-68-1	
7,12-Dimethylbenz(a)anthracene	Benz(a)anthracene, 7,12-dimethyl-	57-97-6	U094
3,3'-Dimethylbenzidine	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-	119-93-7	U095
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
$\alpha,\alpha$ -Dimethylphenethylamine	Benzeneethanamine, $\alpha,\alpha$ -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
Dimetilan	Carbamic acid, dimethyl-, 1-((dimethylamino) carbonyl)-5-methyl-1H-pyrazol-3-yl ester	644-64-4	P191
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-benzodioxathiepen,6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide,	115-29-7	P050
Endothal	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 $\beta$ ,7 $\beta$ ,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-ethane-diylbis-	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	U077
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-dimethyl ester	52-85-7	P097
Ferbam	Iron, tris(dimethylcarbamodithioato-S,S')-,	14484-64-1	
Fluoranthene	Same	206-44-0	U120
Fluorine	Same	7782-41-4	P056
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	23422-53-9	P198

Formic acid	Same	64-18-16	U123
Formparanate	Methanimidamide, N,N-dimethyl-N'-(2-methyl-4-(((methylamino)-carbonyl)oxy)phenyl)-	17702-57-7	P197
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-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1 $\alpha$ ,1b $\beta$ ,2 $\alpha$ ,5 $\alpha$ ,5a $\beta$ ,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-hexachloro-	87-68-3	U128
Hexachlorocyclo-pentadiene	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-	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 H <sub>2</sub> S	7783-06-4	U135
Indeno(1,2,3-cd)pyrene	Same	193-39-5	U137
3-Iodo-2-propynyl-n-butyl-carbamate	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-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1 $\alpha$ ,4 $\alpha$ ,4a $\beta$ ,5 $\beta$ ,8 $\beta$ ,8a $\beta$ )-,	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,4,5,5a,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*),7 $\alpha\alpha$ ))-	303-34-4	U143
Lead	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)tetrahydroxy- tri-	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 $\beta$ )-	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-chloro- ethyl)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-thienyl- methyl)-	91-80-5	U155
Methiocarb	Phenol, (3,5-dimethyl-4- (methylthio)-, methylcarbamate	2032-65-7	P199
Metholmyl	Ethanimidothioic acid, N- (((methylamino)carbonyl)oxy)-, methyl ester	16752-77-5	P066
Methoxychlor	Benzene, 1,1'-(2,2,2-trichloro- ethylidene)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(j)aceanthrylene, 1,2-dihydro-3-methyl-	56-49-5	U157
4,4'-Methylenebis(2-chloro-aniline)	Benzenamine, 4,4'-methylene-bis(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-thioxo-	56-04-2	U164
Metolcarb	Carbamic acid, methyl-, 3-methyl-phenyl 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-(((aminocarbonyl)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-N'-nitro-N-nitroso-	70-25-7	U163
Mustard gas	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
$\alpha$ -Naphthylamine	1-Naphthalenamine	134-32-7	U167
$\beta$ -Naphthylamine	2-Naphthalenamine	91-59-8	U168
$\alpha$ -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
			<u>U169</u>
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, hydrochloride 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-N-nitroso-	10595-95-6	
N-Nitroso-N-methylurea	Urea, N-methyl-N-nitroso-	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
Octachlorodibenzo-p-dioxin (OCDD)	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin.	3268-87-9	
Octachlorodibenzofuran (OCDF)	1,2,3,4,6,7,8,9-Octachlorodibenzofuran.	39001-02-0	
Octamethylpyrophosphoramidate	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	
1,2-Phenylenediamine	1,2-Benzenediamine	95-54-5	
1,3-Phenylenediamine	1,3-Benzenediamine	108-45-2	
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	7803-51-2	P096
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-, methylcarbamate (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 methylcarbamate 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 dimethyldithiocarbamate	Carbamodithioc acid, dimethyl, potassium salt	128-03-0	

Potassium n-hydroxymethyl-n-methyl-dithiocarbamate	Carbamodithioc acid, (hydroxymethyl)methyl-, monopotassium salt	51026-28-9	
Potassium n-methyldithiocarbamate	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-, 1-methylethyl ester	122-42-9	U373
Propoxur	Phenol, 2-(1-methylethoxy)-, methylcarbamate	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-thioxo-	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
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	Carbamodithioc acid, dimethyl-, tetraanhydrosulfide 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 dibutyldithiocarbamate	Carbamodithioic acid, dibutyl-, sodium salt	136-30-1	
Sodium diethyldithiocarbamate	Carbamodithioic acid, diethyl-, sodium salt	148-18-5	
Sodium dimethyldithiocarbamate	Carbamodithioic acid, dimethyl-, sodium salt	128-04-1	
Sodium pentachlorophenate	Pentachlorophenol, sodium salt	131522	None
Streptozotocin	D-Glucose, 2-deoxy-2-(((methyl-nitrosoamino)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)dioxin, 2,3,7,8-tetrachloro-	1746-01-6	
Tetrabutylthiuram disulfide	Thioperoxydicarbonic diamide, tetrabutyl	1634-02-2	
Tetramethylthiuram monosulfide	Bis(dimethylthiocarbamoyl) sulfide	97-74-5	
1,2,4,5-Tetrachlorobenzene	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-Tetrachlorophenol, potassium salt	Same	53535276	None
2,3,4,6-Tetrachlorophenol, sodium salt	Same	25567559	None
Tetraethyldithiopyrophosphate	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 $Tl_2O_3$	1314-32-5	P113
Thallium (I) acetate	Acetic acid, thallium (1+) salt	563-68-8	U214
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((methylimino)-carbonyloxy))-bis-, dimethyl ester	59669-26-0	U410
Thiofanox	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-((methylamino)-carbonyl)oxime	39196-18-4	P045
Thiophanate-methyl	Carbamic acid, (1,2-phenylenebis(iminocarbonothioyl))-bis-, dimethyl ester	23564-05-8	U409
Thiomethanol	Methanethiol	74-93-1	U153
Thiophenol	Benzenethiol	108-98-5	P014
Thiosemicarbazide	Hydrazinecarbothioamide	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-((methylamino)-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-methyl-ethyl)-, 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
Trichloromonofluoromethane	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-Triethylphosphorothioate	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''-phosphinothioylidynetris-	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	Carbamothioic acid, dipropyl-, S-propyl ester	1929-77-7	
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 percent	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 percent	81-81-2	P001
Warfarin salts, when present at concentrations less than 0.3 percent			U248
Warfarin salts, when present at concentrations greater than 0.3 percent			P001
Zinc cyanide	Zinc cyanide Zn(CN) <sub>2</sub>	557-21-1	P121
Zinc phosphide	Zinc phosphide P <sub>2</sub> Zn <sub>3</sub> , when present at concentrations greater than 10 percent	1314-84-7	P122
Zinc phosphide	Zinc phosphide P <sub>2</sub> Zn <sub>3</sub> , when present at concentrations of 10 percent or less	1314-84-7	U249
Ziram	Zinc, bis(dimethylcarbamodithioato-S,S')- (T-4)-	137-30-4	P205

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

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 721.APPENDIX Z Table to Section 721.102: Recycled Materials That Are Solid Waste**

The following table lists the instances when a recycled secondary material is solid waste, based on the type of secondary material and the mode of material management during recycling. This table supports the requirements of the recycling provision of the definition of solid waste rule, at Section 721.102(c).

Table				
	1	2	3	4
			Reclamation (except as provided in Sections <del>721.102(a)(2)- (B) or Section</del> 721.104-	
	Use constituting disposal	Burning for energy recovery or use to produce a fuel	(a)(17), (a)(23), (a)(24), or <del>(a)(25)</del> <u>(a)(27)</u> )	Speculative accumulation
Applicable Subsection of Section 721.102:	(c)(1)	(c)(2)	(c)(3)	(c)(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 that is not excluded pursuant to Section 721.104(a)(13)	Yes	Yes	Yes	Yes
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Yes - Defined as a solid waste

No - Not defined as a solid waste

BOARD NOTE: Derived from Table 1 to 40 CFR 261.2 (2010). The terms “spent materials,” “sludges,” “by-products,” “scrap metal,” and “processed scrap metal” are defined in Section 721.101.

(Source: Amended at 40 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

Section	
722.110	Purpose, Scope, and Applicability
722.111	Hazardous Waste Determination
722.112	USEPA Identification Numbers
722.113	Electronic Reporting

SUBPART B: THE MANIFEST

Section	
722.120	General Requirements
722.121	Manifest Tracking Numbers, Manifest Printing, and Obtaining Manifests
722.122	Number of Copies
722.123	Use of the Manifest
722.124	Use of the Electronic Manifest
722.125	Electronic Manifest Signatures
722.127	Waste Minimization Certification

SUBPART C: PRE-TRANSPORT REQUIREMENTS

Section	
722.130	Packaging
722.131	Labeling
722.132	Marking
722.133	Placarding
722.134	Accumulation Time

#### SUBPART D: RECORDKEEPING AND REPORTING

Section	
722.140	Recordkeeping
722.141	Annual Reporting
722.142	Exception Reporting
722.143	Additional Reporting
722.144	Special Requirements for Generators of between 100 and 1,000 kilograms per month

#### SUBPART E: EXPORTS OF HAZARDOUS WASTE

Section	
722.150	Applicability
722.151	Definitions
722.152	General Requirements
722.153	Notification of Intent to Export
722.154	Special Manifest Requirements
722.155	Exception Report
722.156	Annual Reports
722.157	Recordkeeping
722.158	International Agreements

#### SUBPART F: IMPORTS OF HAZARDOUS WASTE

Section	
722.160	Imports of Hazardous Waste

#### SUBPART G: FARMERS

Section	
722.170	Farmers

#### SUBPART H: TRANS-BOUNDARY 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
722.184	Movement Document
722.185	Contracts
722.186	Provisions Relating to Recognized Traders
722.187	Reporting and Recordkeeping
722.189	OECD Waste Lists

SUBPART K: ALTERNATIVE REQUIREMENTS FOR HAZARDOUS  
WASTE DETERMINATION AND ACCUMULATION OF UNWANTED  
MATERIAL FOR LABORATORIES OWNED BY ELIGIBLE ACADEMIC  
ENTITIES

Section	
722.300	Definitions
722.301	Applicability
722.302	Opting into the Subpart K Requirements
722.303	Notice of Election into the Subpart K Requirements
722.304	Notice of Withdrawal from the Subpart K Requirements
722.305	Summary of the Requirements of this Subpart K
722.306	Container Standards in the Laboratory
722.307	Personnel Training
722.308	Removing Unwanted Material from the Laboratory
722.309	Hazardous Waste Determination and Removal of Unwanted Material from the Laboratory
722.310	Hazardous Waste Determination in the Laboratory
722.311	Hazardous Waste Determination at an On-Site Central Accumulation Area
722.312	Hazardous Waste Determination at an On-Site Treatment, Storage, or Disposal Facility
722.313	Laboratory Clean-Outs
722.314	Laboratory Management Plan
722.315	Unwanted Material That Is Not Solid Waste or Hazardous Waste
722.316	Non-Laboratory Hazardous Waste Generated at an Eligible Academic Entity

722.APPENDIX A Hazardous Waste Manifest

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

**SOURCE:** Adopted in R81-22 at 5 Ill. Reg. 9781, effective May 17, 1982; amended and codified in R81-22 at 6 Ill. Reg. 4828, effective May 17, 1982; amended in R82-18 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. 17950, effective September 28, 1998; amended in R00-5 at 24 Ill. Reg.

1136, effective January 6, 2000; amended in R00-13 at 24 Ill. Reg. 9822, effective June 20, 2000; expedited correction at 25 Ill. Reg. 5105, effective June 20, 2000; amended in R05-2 at 29 Ill. Reg. 6312, effective April 22, 2005; amended in R06-5/R06-6/R06-7 at 30 Ill. Reg. 3138, effective February 23, 2006; amended in R06-16/R06-17/R06-18 at 31 Ill. Reg. 871, effective December 20, 2006; amended in R07-5/R07-14 at 32 Ill. Reg. 11927, effective July 14, 2008; amended in R09-16/R10-4 at 34 Ill. Reg. 18817, effective November 12, 2010; amended in R11-2/R11-16 at 35 Ill. Reg. 17888, effective October 14, 2011; amended in R12-7 at 36 Ill. Reg. 8773, effective June 4, 2012; amended in R13-15 at 37 Ill. Reg. 17763, effective October 24, 2013; amended in R15-1 at 39 Ill. Reg. 1700, effective January 12, 2015; amended in R16-7 at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

## SUBPART C: PRE-TRANSPORT REQUIREMENTS

### Section 722.132 Marking

- a) Before transporting or offering hazardous waste for transportation off-site, a generator must mark each package of hazardous waste in accordance with the applicable USDOT regulations on hazardous materials under 49 CFR 172 (Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements), incorporated by reference in 35 Ill. Adm. Code 720.111(b);
- b) Marking small containers. Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must mark each container of 119 gallons (450 liters) (~~110 gallons~~) or less that is used in such transportation with the following words and information displayed in accordance with the requirements of 49 CFR 172.304 (Marking Requirements), incorporated by reference in 35 Ill. Adm. Code 720.111(b):

HAZARDOUS WASTE—Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.

Generator's Name and Address \_\_\_\_\_.

Generator's USEPA Identification Number \_\_\_\_\_.

Manifest Tracking Number \_\_\_\_\_.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## SUBPART E: EXPORTS OF HAZARDOUS WASTE

### Section 722.158 International Agreements

- a) Any person that exports or imports waste hazardous under U.S. national procedures, as defined in Section 722.181, to or from any of the designated member countries of the Organisation for Economic Co-operation and

Development (OECD), as listed in subsection (a)(1) ~~of this Section~~, for purposes of recovery is subject to the requirements of Subpart H of this Part. The requirements of Subparts E and F of this Part do not apply where Subpart H of this Part applies.

- 1) For the purposes of this Subpart E, the designated OECD countries are Australia, Austria, Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Poland, Portugal, the Republic of Korea, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.
- 2) Only for the purposes of Subpart E of this Part, Canada and Mexico are considered OECD member countries.

BOARD NOTE: USEPA used identical language in 40 CFR 262.10(d), corresponding 262.58(a), and 262.80(a) to define when a waste is considered hazardous under U.S. national procedures. The Board has chosen to create the term “waste hazardous under U.S. national procedures”; add a definition in Section 722.181, the centralized listing of definitions for Subpart H of this Part; and replace USEPA’s defining language in this subsection (a) with a cross-reference to the definition in Section 722.181.

- 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, etc.), Mexico (for any purpose), or Canada (for any purpose) remains subject to the requirements of Subparts E and F of this Part, and that person is not subject to the requirements of Subpart H of this Part.

(Source: Amended at 40 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

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

**SOURCE:** Adopted in R82-19 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, effective 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. 17972, effective September 28, 1998; amended in R98-21/R99-2/R99-7 at 23 Ill. Reg. 2186, effective January 19, 1999; amended in R99-15 at 23 Ill. Reg. 9437, effective July 26, 1999; amended in R00-5 at 24 Ill. Reg. 1146, effective January 6, 2000; amended in R00-13 at 24 Ill. Reg. 9833, effective June 20, 2000; expedited correction at 25 Ill. Reg. 5115, effective June 20, 2000; amended in R02-1/R02-12/R02-17 at 26 Ill. Reg. 6635, effective April 22, 2002; amended in R03-7 at 27 Ill. Reg. 3725, effective February 14, 2003; amended in R05-8 at 29 Ill. Reg. 6009, effective April 13, 2005; amended in R05-2 at 29 Ill. Reg. 6365, effective April 22, 2005; amended in R06-5/R06-6/R06-7 at 30 Ill. Reg. 3196, effective February 23, 2006; amended in R06-16/R06-17/R06-18 at 31 Ill. Reg. 893, effective December 20, 2006; amended in R07-5/R07-14 at 32 Ill. Reg. 12365, effective July 14, 2008; amended in R09-3 at 33 Ill. Reg. 1106, effective December 30, 2008; amended in R09-16/R10-4 at 34 Ill. Reg. 18873, effective November 12, 2010; amended in R11-2/R11-16 at 35 Ill. Reg. 17965, effective October 14, 2011; amended in R13-15 at 37 Ill. Reg. 17773, effective October 24, 2013; amended in R15-1 at 39 Ill. Reg. 1724, effective January 12, 2015; amended in R16-7 at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

## SUBPART E: MANIFEST SYSTEM, RECORDKEEPING AND REPORTING

### Section 724.171 Use of Manifest System

- a) Receipt of manifested hazardous waste.
  - 1) If a facility receives hazardous waste accompanied by a manifest, the owner, operator, or its agent must sign and date the manifest, as indicated in subsection (a)(2) ~~of this Section~~, to certify that the hazardous waste covered by the manifest was received, that the hazardous waste was received except as noted in the discrepancy space of the manifest, or that the hazardous waste was rejected as noted in the manifest discrepancy space.

- 2) If a facility receives a hazardous waste shipment accompanied by a manifest, the owner, operator, or its agent must do the following:
    - A) The owner, operator, or agent must sign and date, by hand, each copy of the manifest;
    - B) The owner, operator, or agent must note any discrepancies (as defined in Section ~~725.172~~ 724.172) on each copy of the manifest;
    - C) The owner, operator, or agent must immediately give the transporter at least one copy of the manifest;
    - D) The owner, operator, or agent must send a copy (Page 3) of the manifest to the generator within 30 days after delivery;
    - E) Within 30 days after delivery, the owner, operator, or agent must send the top copy (Page 1) of the manifest to the e-Manifest System for purposes of data entry and processing. In lieu of mailing this paper copy to the e-Manifest System operator, the owner or operator may transmit to the e-Manifest System operator an image file of Page 1 of the manifest, or both a data string file and the image file corresponding to Page 1 of the manifest. Any data or image files transmitted to USEPA under this subsection (a) must be submitted in data file and image file formats that are acceptable to USEPA and that are supported by USEPA's electronic reporting requirements and by the e-Manifest System; and
    - F) The owner, operator, or agent must retain at the facility a copy of each manifest for at least three years after the date of delivery.
  - 3) If a facility receives hazardous waste imported from a foreign source, the receiving facility must mail a copy of the manifest and documentation confirming USEPA's consent to the import of hazardous waste to the following address within 30 days after delivery: Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW, Washington, DC 20460.
- 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 the owner or operator's agent, must do the following:
- 1) It must 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) It must note any significant discrepancies (as defined in Section 724.172(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 Board does not intend that the owner or operator of a facility whose procedures under Section 724.113(c) include waste analysis must perform that analysis before signing the shipping paper and giving it to the transporter. Section 724.172(b), however, requires reporting an unreconciled discrepancy discovered during later analysis.

- 3) It must 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) The owner or operator must send a copy of the signed and dated manifest or a signed and dated copy of the shipping paper (if the manifest has not been received within 30 days after delivery) to the generator within 30 days after the delivery; and

BOARD NOTE: Section 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 Section 722.134 only apply to owners or operators that are shipping hazardous waste that they generated at that facility.

- d) Within three working days after the receipt of a shipment subject to Subpart H of 35 Ill. Adm. Code 722, the owner or operator of a facility must provide a copy of the movement document bearing all required signatures to the exporter; to the Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), Environmental Protection Agency, 1200 Pennsylvania Ave., NW, 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 movement document must be maintained at the facility for at least three years from the date of signature.

- e) A facility must determine whether the consignment state for a shipment regulates any additional wastes (beyond those regulated federally) as hazardous wastes under its state hazardous waste program. A facility must also determine whether the consignment state or generator state requires the facility to submit any copies of the manifest to that state.
- f) Legal equivalence to paper manifests. E-Manifests that are obtained, completed, transmitted in accordance with 35 Ill. Adm. Code 722.120(a)(3), and used in accordance with this Section in lieu of the paper manifest form are the legal equivalent of paper manifest forms bearing handwritten signatures, and satisfy for all purposes any requirement in 35 Ill. Adm. Code 720 through 728 to obtain, complete, sign, provide, use, or retain a manifest.
  - 1) Any requirement in 35 Ill. Adm. Code 720 through 728 for the owner or operator of a facility to sign a manifest or manifest certification by hand, or to obtain a handwritten signature, is satisfied by signing with or obtaining a valid and enforceable electronic signature within the meaning of 35 Ill. Adm. Code 722.125.
  - 2) Any requirement in 35 Ill. Adm. Code 720 through 728 to give, provide, send, forward, or to return to another person a copy of the manifest is satisfied when a copy of an e-Manifest is transmitted to the other person.
  - 3) Any requirement in 35 Ill. Adm. Code 720 through 728 for a manifest to accompany a hazardous waste shipment is satisfied when a copy of an e-Manifest is accessible during transportation and forwarded to the person or persons who are scheduled to receive delivery of the hazardous waste shipment.
  - 4) Any requirement in 35 Ill. Adm. Code 720 through 728 for an owner or operator to keep or retain a copy of each manifest is satisfied by the retention of the facility's e-Manifest copies in its account on the e-Manifest System, provided that such copies are readily available for viewing and production if requested by any USEPA or Agency inspector.
  - 5) No owner or operator may be held liable for the inability to produce an e-Manifest for inspection under this Section if the owner or operator can demonstrate that the inability to produce the e-Manifest is due exclusively to a technical difficulty with the e-Manifest System for which the owner or operator bears no responsibility.
- g) An owner or operator may participate in the e-Manifest System either by accessing the e-Manifest System from the owner's or operator's electronic equipment, or by accessing the e-Manifest System from portable equipment brought to the owner's or operator's site by the transporter that delivers the waste shipment to the facility.

- h) Special procedures applicable to replacement manifests. If a facility receives hazardous waste that is accompanied by a paper replacement manifest for a manifest that was originated electronically, the following procedures apply to the delivery of the hazardous waste by the final transporter:
- 1) Upon delivery of the hazardous waste to the designated facility, the owner or operator must sign and date each copy of the paper replacement manifest by hand in Item 20 (Designated Facility Certification of Receipt) and note any discrepancies in Item 18 (Discrepancy Indication Space) of the paper replacement manifest;
  - 2) The owner or operator of the facility must give back to the final transporter one copy of the paper replacement manifest;
  - 3) Within 30 days after delivery of the hazardous waste to the designated facility, the owner or operator of the facility must send one signed and dated copy of the paper replacement manifest to the generator and send an additional signed and dated copy of the paper replacement manifest to the e-Manifest System; and
  - 4) The owner or operator of the facility must retain at the facility one copy of the paper replacement manifest for at least three years after the date of delivery.
- i) Special procedures applicable to electronic signature methods undergoing tests. If an owner or operator using an e-Manifest signs this manifest electronically using an electronic signature method that is undergoing pilot or demonstration tests aimed at demonstrating the practicality or legal dependability of the signature method, the owner or operator must also sign with an ink signature the facility's certification of receipt or discrepancies on the printed copy of the manifest provided by the transporter. Upon executing its ink signature on this printed copy, the owner or operator must retain this original copy among its records for at least three years after the date of delivery of the waste.
- j) Imposition of user fee for e-Manifest use. An owner or operator that is a user of the e-Manifest System may be assessed a user fee by USEPA for the origination or processing of each e-Manifest. An owner or operator may also be assessed a user fee by USEPA for the collection and processing of paper manifest copies that owners or operators must submit to the e-Manifest System operator under subsection ~~724.171(a)(2)(E)~~ (a)(2)(E). USEPA has stated that it would maintain and update from time-to-time the current schedule of e-Manifest System user fees, which will be determined based on current and projected e-Manifest System costs and level of use of the e-Manifest System. USEPA has said that it would publish the current schedule of e-Manifest user fees as an appendix to 40 CFR 262.
- k) E-Manifest signatures. E-Manifest signatures must meet the criteria described in 35 Ill. Adm. Code 722.125.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

SUBPART F: RELEASES FROM SOLID WASTE MANAGEMENT UNITS

**Section 724.194 Concentration Limits**

- a) The Agency must specify in the facility permit concentration limits in the groundwater for hazardous constituents established under Section 724.193. The following must be true of the concentration of a hazardous constituent:
- 1) It must not exceed the background level of that constituent in the groundwater at the time that limit is specified in the permit; or
  - 2) For any of the constituents listed in Table 1, it must not exceed the respective value given in that Table if the background level of the constituent is below the value given in Table 1; or
  - 3) It must not exceed an alternative limit established by the Agency under subsection (b) ~~of this Section~~.

TABLE 1—MAXIMUM CONCENTRATION OF CONSTITUENTS FOR GROUNDWATER PROTECTION

Constituent	Maximum Concentration (mg/l)
Arsenic ( <u>CAS No. 7440-38-2</u> )	0.05
Barium ( <u>CAS No. 7440-39-3</u> )	1.0
Cadmium ( <u>CAS No. 7440-43-9</u> )	0.01
Chromium ( <u>CAS No. 7440-47-3</u> )	0.05
Lead ( <u>CAS No. 7439-92-1</u> )	0.05
Mercury ( <u>CAS No. 7439-97-6</u> )	0.002
Selenium ( <u>CAS No. 7782-49-2</u> )	0.01
Silver ( <u>CAS No. 7440-22-4</u> )	0.05
Endrin (1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo,endo-1,4:5,8-dimethanonaphthalene) ( <u>CAS No. 72-20-8</u> )	0.0002
Lindane (1,2,3,4,5,6-hexachlorocyclohexane, gamma isomer) ( <u>CAS No. 58-89-9</u> )	0.004

Methoxychlor (1,1,1-Trichloro-2,2'-bis-(p-methoxyphenyl)-ethane) <u>(1,1,1-Trichloro-2,2-bis(p-methoxyphenyl)ethane) (CAS No. 72-43-5)</u>	0.1
Toxaphene ( <u>C<sub>10</sub>H<sub>10</sub>Cl<sub>6</sub></u> , Technical chlorinated camphene, 67-69 percent chlorine) <u>(CAS No. 8001-35-2)</u>	0.005
2,4-D (2,4-Dichlorophenoxyacetic acid) <u>(CAS No. 94-75-7)</u>	0.1
2,4,5-TP (Silvex) (2,4,5-Trichlorophenoxypropionic acid) <u>(CAS No. 93-72-1)</u>	0.01

b) The Agency must establish an alternative concentration limit for a hazardous constituent if it finds that the constituent will not pose a substantial present or potential hazard to human health or the environment as long as the alternative concentration limit is not exceeded. In establishing alternate concentration limits, the Agency must consider the following factors:

- 1) Potential adverse effects on groundwater quality, considering the following:
  - A) The physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;
  - B) The hydrogeological characteristics of the facility and surrounding land;
  - C) The quantity of groundwater and the direction of groundwater flow;
  - D) The proximity and withdrawal rates of groundwater users;
  - E) The current and future uses of groundwater in the area;
  - F) The existing quality of groundwater, including other sources of contamination and their cumulative impact on the groundwater quality;
  - G) The potential for health risks caused by human exposure to waste constituents;
  - H) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;
  - I) The persistence and permanence of the potential adverse effects; and

- 2) Potential adverse effects on hydraulically-connected surface-water quality, considering the following:
- A) The volume and physical and chemical characteristics of the waste in the regulated unit;
  - B) The hydrogeological characteristics of the facility and surrounding land;
  - C) The quantity and quality of groundwater and the direction of groundwater flow;
  - D) The patterns of rainfall in the region;
  - E) The proximity of the regulated unit to surface waters;
  - F) The current and future uses of surface waters in the area and any water quality standards established for those surface waters;
  - G) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface-water quality;
  - H) The potential for health risks caused by human exposure to waste constituents;
  - I) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and
  - J) The persistence and permanence of the potential adverse effects.
- c) In making any determination under subsection (b) ~~of this Section~~ about the use of groundwater in the area around the facility, the Agency must consider any identification of underground sources of drinking water and exempted aquifers made under 35 Ill. Adm. Code 704.123.
- d) The Agency must make specific written findings in setting any alternate concentration limits under subsection (b) ~~of this Section~~.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART H: FINANCIAL REQUIREMENTS

##### **Section 724.244 Cost Estimate for Post-Closure Care**

- a) The owner or operator of a disposal surface impoundment, disposal miscellaneous unit, land treatment unit, or landfill unit or the owner or operator of a surface impoundment or waste pile required under Sections 724.328 or 724.358 to prepare a contingent closure and post-closure plan must have a detailed written estimate, in current dollars, of the annual cost of post-closure monitoring and

maintenance of the facility in accordance with the applicable post-closure regulations in Sections 724.217 through 724.220, 724.328, 724.358, 724.380, 724.410, and ~~724.603~~ 724.703.

- 1) The post-closure cost estimate must be based on the costs to the owner or operator of hiring a third party to conduct post-closure care activities. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. (See definition of parent corporation in Section 724.241(d)).
  - 2) The post-closure cost estimate is calculated by multiplying the annual post-closure cost estimate by the number of years of post-closure care required under Section 724.217.
- b) During the active life of the facility, the owner or operator must adjust the post-closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instruments used to comply with Section 724.245. For owners or operators using the financial test or corporate guarantee, the post-closure cost estimate must be updated for inflation within 30 days after the close of the firm's fiscal year and before the submission of updated information to the Agency, as specified in Section 724.245(f)(5). The adjustment may be made by recalculating the post-closure cost estimate in current dollars or by using an inflation factor derived from the annual Implicit Price Deflator for Gross National Product, as published by the U.S. Department of Commerce in its Survey of Current Business, as specified in subsections (b)(1) and (b)(2) ~~of this Section~~. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.
- 1) The first adjustment is made by multiplying the post-closure cost estimate by the inflation factor. The result is the adjusted post-closure cost estimate.
  - 2) Subsequent adjustments are made by multiplying the latest adjusted post-closure cost estimate by the latest inflation factor.
- c) During the active life of the facility the owner or operator must revise the post-closure cost estimate within 30 days after the Agency has approved a request to modify the post-closure plan if the change in the post-closure plan increases the cost of post-closure care. The revised post-closure cost estimate must be adjusted for inflation, as specified in Section 724.244(b).
- d) The owner or operator must keep the following at the facility during the operating life of the facility: The latest post-closure cost estimate prepared in accordance with Section 724.244(a) and (c) and, when this estimate has been adjusted in accordance with Section 724.244(b), the latest adjusted post-closure cost estimate.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### Section 724.245 Financial Assurance for Post-Closure Care

An owner or operator of a hazardous waste management unit subject to the requirements of Section 724.244 must establish financial assurance for post-closure care in accordance with the approved post-closure plan for the facility 60 days prior to the initial receipt of hazardous waste or the effective date of the regulation, whichever is later. The owner or operator must choose from among the following options:

- a) Post-closure trust fund.
  - 1) An owner or operator may satisfy the requirements of this Section by establishing a post-closure trust fund that conforms to the requirements of this subsection (a) and submitting an original, signed duplicate of the trust agreement to the Agency. An owner or operator of a new facility must submit the original, signed duplicate of the trust agreement to the Agency at least 60 days before the date on which hazardous waste is first received for disposal. The trustee must be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or State agency.
  - 2) The wording of the trust agreement must be that specified in Section 724.251 and the trust agreement accompanied by a formal certification of acknowledgment (as specified in Section 724.251). Schedule A of the trust agreement must be updated within 60 days after a change in the amount of the current post-closure cost estimate covered by the agreement.
  - 3) Payments into the trust fund must be made annually by the owner or operator over the term of the initial RCRA permit or over the remaining operating life of the facility as estimated in the closure plan, whichever period is shorter; this period is hereafter referred to as the “pay-in period.” The payments into the post-closure trust fund must be made as follows:
    - A) For a new facility, the first payment must be made before the initial receipt of hazardous waste for disposal. A receipt from the trustee for this payment must be submitted by the owner or operator to the Agency before this initial receipt of hazardous waste. The first payment must be at least equal to the current post-closure cost estimate, except as provided in subsection (g) ~~of this Section~~, divided by the number of years in the pay-in period. Subsequent payments must be made no later than 30 days after each anniversary date of the first payment. The amount of each subsequent payment must be determined by the following formula:

$$\text{Next payment} = \frac{(\text{CE} - \text{CV})}{Y}$$



Where:

CE = the current closure cost estimate  
 CV = the current value of the trust fund  
 Y = the number of years remaining in the pay-in period

- B) If an owner or operator establishes a trust fund, as specified in 35 Ill. Adm. Code 725.245(a), and the value of that trust fund is less than the current post-closure cost estimate when a permit is awarded for the facility, the amount of the current post-closure cost estimate still to be paid into the trust fund must be paid in over the pay-in period as defined in subsection (a)(3) ~~of this Section~~. Payments must continue to be made no later than 30 days after each anniversary date of the first payment made pursuant to 35 Ill. Adm. Code 725. The amount of each payment must be determined by the following formula:

$$\text{Next payment} = \frac{(\text{CE} - \text{CV})}{\text{Y}}$$

Where:

CE = the current closure cost estimate  
 CV = the current value of the trust fund  
 Y = the number of years remaining in the pay-in period

- 4) The owner or operator may accelerate payments into the trust fund or may deposit the full amount of the current post-closure cost estimate at the time the fund is established. However, the owner or operator must maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in subsection (a)(3) ~~of this Section~~.
- 5) If the owner or operator establishes a post-closure trust fund after having used one or more alternative mechanisms specified in this Section or in 35 Ill. Adm. Code 725.245, its first payment must be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made according to specifications of this subsection (a) and 35 Ill. Adm. Code 725.245, as applicable.
- 6) After the pay-in period is completed, whenever the current post-closure cost estimate changes during the operating life of the facility, the owner or operator must compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after

the change in the cost estimate, must either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current post-closure cost estimate, or obtain other financial assurance, as specified in this Section, to cover the difference.

- 7) During the operating life of the facility, if the value of the trust fund is greater than the total amount of the current post-closure cost estimate, the owner or operator may submit a written request to the Agency for release of the amount in excess of the current post-closure cost estimate.
  - 8) If an owner or operator substitutes other financial assurance as specified in this Section for all or part of the trust fund, it may submit a written request to the Agency for release of the amount in excess of the current post-closure cost estimate covered by the trust fund.
  - 9) Within 60 days after receiving a request from the owner or operator for release of funds, as specified in subsection (a)(7) or (a)(8) ~~of this Section~~, the Agency must instruct the trustee to release to the owner or operator such funds as the Agency specifies in writing.
  - 10) During the period of post-closure care, the Agency must approve a release of funds if the owner or operator demonstrates to the Agency that the value of the trust fund exceeds the remaining cost of post-closure care.
  - 11) An owner or operator or any other person authorized to perform post-closure care may request reimbursement for post-closure care expenditures by submitting itemized bills to the Agency. Within 60 days after receiving bills for post-closure activities, the Agency must instruct the trustee to make requirements in those amounts that the Agency specifies in writing if the Agency determines that the post-closure care expenditures are in accordance with the approved post-closure plan or otherwise justified. If the Agency does not instruct the trustee to make such reimbursements, the Agency must provide the owner or operator with a detailed written statement of reasons.
  - 12) The Agency must agree to termination of the trust when either of the following occurs:
    - A) An owner or operator substitutes alternative financial assurance, as specified in this Section; or
    - B) The Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) ~~of this Section~~.
- b) Surety bond guaranteeing payment into a post-closure trust fund.
- 1) An owner or operator may satisfy the requirements of this Section by obtaining a surety bond that conforms to the requirements of this

subsection (b) and submitting the bond to the Agency. An owner or operator of a new facility must submit the bond to the Agency at least 60 days before the date on which hazardous waste is first received for disposal. The bond must be effective before this initial receipt of hazardous waste. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on federal bonds in Circular 570 of the U.S. Department of the Treasury.

BOARD NOTE: The U.S. Department of the Treasury updates Circular 570, "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies," on an annual basis pursuant to 31 CFR 223.16. Circular 570 is available on the Internet from the following website: <http://www.fms.treas.gov/c570/>.

- 2) The wording of the surety bond must be that specified in Section 724.251.
- 3) The owner or operator who uses a surety bond to satisfy the requirements of this Section must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Agency. This standby trust fund must meet the requirements specified in subsection (a) ~~of this Section~~, except as follows:
  - A) An original, signed duplicate of the trust agreement must be submitted to the Agency with the surety bond; and
  - B) Until the standby trust fund is funded pursuant to the requirements of this Section, the following are not required by these regulations:
    - i) Payments into the trust fund, as specified in subsection (a) ~~of this Section~~;
    - ii) Updating of Schedule A of the trust agreement (as specified in Section 724.251) to show current post-closure cost estimates;
    - iii) Annual valuations, as required by the trust agreement; and
    - iv) Notices of nonpayment, as required by the trust agreement.
- 4) The bond must guarantee that the owner or operator will do one of the following:
  - A) Fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility;
  - B) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an order to begin closure is issued by the

Board or a U.S. district court or other court of competent jurisdiction; or

- C) Provide alternative financial assurance as specified in this Section, and obtain the Agency's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Agency of a notice of cancellation of the bond from the surety.
- 5) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.
  - 6) The penal sum of the bond must be in an amount at least equal to the current post-closure cost estimate, except as provided in subsection (g) of ~~this Section~~.
  - 7) Whenever the current post-closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Agency or obtain other financial assurance, as specified in this Section, to cover the increase. Whenever the current post-closure cost estimate decreases, the penal sum may be reduced to the amount of the current post-closure cost estimate following written approval by the Agency.
  - 8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Agency. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Agency, as evidenced by the return receipts.
  - 9) The owner or operator may cancel the bond if the Agency has given prior written consent based on its receipt of evidence of alternative financial assurance, as specified in this Section.
- c) Surety bond guaranteeing performance of post-closure care.
- 1) An owner or operator may satisfy the requirements of this Section by obtaining a surety bond that conforms to the requirements of this subsection (c) and submitting the bond to the Agency. An owner or operator of a new facility must submit the bond to the Agency at least 60 days before the date on which hazardous waste is first received for disposal. The bond must be effective before this initial receipt of hazardous waste. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on federal bonds in Circular 570 of the U.S. Department of the Treasury.

BOARD NOTE: The U.S. Department of the Treasury updates Circular 570, "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies," on an annual basis pursuant to 31 CFR 223.16. Circular 570 is available on the Internet from the following website: <http://www.fms.treas.gov/c570/>.

- 2) The wording of the surety bond must be that specified in Section 724.251.
- 3) The owner or operator who uses a surety bond to satisfy the requirements of this Section must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Agency. This standby trust must meet the requirements specified in subsection (a) ~~of this Section~~, except as follows:
  - A) An original, signed duplicate of the trust agreement must be submitted to the Agency with the surety bond; and
  - B) Unless the standby trust fund is funded pursuant to the requirements of this Section, the following are not required:
    - i) Payments into the trust fund, as specified in subsection (a) ~~of this Section~~;
    - ii) Updating of Schedule A of the trust agreement (as specified in Section 724.251) to show current post-closure cost estimates;
    - iii) Annual valuations, as required by the trust agreement; and
    - iv) Notices of nonpayment, as required by the trust agreement.
- 4) The bond must guarantee that the owner or operator will do either of the following:
  - A) Perform final post-closure care in accordance with the post-closure plan and other requirements of the permit for the facility; or
  - B) Provide alternative financial assurance, as specified in this Section, and obtain the Agency's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Agency of a notice of cancellation of the bond from the surety.
- 5) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond. Following a final judicial determination or Board order finding that the owner or operator has failed to perform post-closure care in

accordance with the approved post-closure plan and other permit requirements, under the terms of the bond the surety will perform post-closure care in accordance with post-closure plan and other permit requirements or will deposit the amount of the penal sum into the standby trust fund.

- 6) The penal sum of the bond must be in an amount at least equal to the current post-closure cost estimate.
  - 7) Whenever the current post-closure cost estimate increases to an amount greater than the penal sum during the operating life of the facility, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Agency, or obtain other financial assurance, as specified in this Section. Whenever the current closure cost estimate decreases during the operating life of the facility, the penal sum may be reduced to the amount of the current post-closure cost estimate following written approval by the Agency.
  - 8) During the period of post-closure care, the Agency must approve a decrease in the penal sum if the owner or operator demonstrates to the Agency that the amount exceeds the remaining cost of post-closure care.
  - 9) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Agency. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Agency, as evidenced by the return receipts.
  - 10) The owner or operator may cancel the bond if the Agency has given prior written consent. The Agency must provide such written consent when either of the following occurs:
    - A) An owner or operator substitutes alternative financial assurance as specified in this Section; or
    - B) The Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) ~~of this Section~~.
  - 11) The surety will not be liable for deficiencies in the performance of post-closure care by the owner or operator after the Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) ~~of this Section~~.
- d) Post-closure letter of credit.
- 1) An owner or operator may satisfy the requirements of this Section by obtaining an irrevocable standby letter of credit that conforms to the

requirements of this subsection (d) and submitting the letter to the Agency. An owner or operator of a new facility must submit the letter of credit to the Agency at least 60 days before the date on which hazardous waste is first received for disposal. The letter of credit must be effective before this initial receipt of hazardous waste. The issuing institution must be an entity that has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a federal or State agency.

- 2) The wording of the letter of credit must be that specified in Section 724.251.
- 3) An owner or operator who uses a letter of credit to satisfy the requirements of this Section must also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Agency must be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Agency. This standby trust fund must meet the requirements of the trust fund specified in subsection (a) ~~of this Section~~, except as follows:
  - A) An original, signed duplicate of the trust agreement must be submitted to the Agency with the letter of credit; and
  - B) Unless the standby trust fund is funded pursuant to the requirements of this Section, the following are not required by these regulations:
    - i) Payments into the trust fund, as specified in subsection (a) ~~of this Section~~;
    - ii) Updating of Schedule A of the trust agreement (as specified in Section 724.251) to show current post-closure cost estimates;
    - iii) Annual valuations, as required by the trust agreement; and
    - iv) Notices of nonpayment, as required by the trust agreement.
- 4) The letter or credit must be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date and providing the following information: the USEPA identification number, name and address of the facility, and the amount of funds assured for post-closure care of the facility by the letter of credit.
- 5) The letter of credit must be irrevocable and issued for a period of at least one year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least one year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the Agency by certified mail of a decision not to

extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the Agency have received the notice, as evidenced by the return receipts.

- 6) The letter of credit must be issued in an amount at least equal to the current post-closure cost estimate, except as provided in subsection (g) of this Section.
- 7) Whenever the current post-closure cost estimate increases to an amount greater than the amount of the credit during the operating life of the facility, the owner or operator, within 60 days after the increase, must either cause the amount of the credit to be increased so that it at least equals the current post-closure cost estimate and submit evidence of such increase to the Agency, or obtain other financial assurance as specified in this Section to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the amount of the credit may be reduced to the amount of the current post-closure cost estimate following written approval by the Agency.
- 8) During the period of post-closure care, the Agency must approve a decrease in the amount of the letter of credit if the owner or operator demonstrates to the Agency that the amount exceeds the remaining cost of post-closure care.
- 9) Following a final judicial determination or Board order finding that the owner or operator has failed to perform post-closure care in accordance with the approved post-closure plan and other permit requirements, the Agency may draw on the letter of credit.
- 10) If the owner or operator does not establish alternative financial assurance, as specified in this Section, and obtain written approval of such alternative assurance from the Agency within 90 days after receipt by both the owner or operator and the Agency of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Agency must draw on the letter of credit. The Agency may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the Agency must draw on the letter of credit if the owner or operator has failed to provide alternative financial assurance, as specified in this Section, and obtain written approval of such assurance from the Agency.
- 11) The Agency must return the letter of credit to the issuing institution for termination when either of the following occurs:
  - A) An owner or operator substitutes alternative financial assurance, as specified in this Section; or



- B) The Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) ~~of this Section~~.
- e) Post-closure insurance.
- 1) An owner or operator may satisfy the requirements of this Section by obtaining post-closure insurance that conforms to the requirements of this subsection (e) and submitting a certificate of such insurance to the Agency. An owner or operator of a new facility must submit the certificate of insurance to the Agency at least 60 days before the date on which hazardous waste is first received for disposal. The insurance must be effective before this initial receipt of hazardous waste. At a minimum, the insurer must be licensed to transact the business of insurance or be eligible to provide insurance as an excess or surplus lines insurer in one or more states.
  - 2) The wording of the certificate of insurance must be that specified in Section 724.251.
  - 3) The post-closure insurance policy must be issued for a face amount at least equal to the current post-closure cost estimate, except as provided in subsection (g) ~~of this Section~~. The term “face amount” means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer’s future liability will be lowered by the amount of the payments.
  - 4) The post-closure insurance policy must guarantee that funds will be available to provide post-closure care of facility whenever the post-closure period begins. The policy must also guarantee that, once post-closure care begins, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Agency to such party or parties as the Agency specifies.
  - 5) An owner or operator or any other person authorized to perform post-closure care may request reimbursement for post-closure care expenditures by submitting itemized bills to the Agency. Within 60 days after receiving bills for post-closure activities, the Agency must instruct the insurer to make reimbursement in such amounts as the Agency specifies in writing if the Agency determines that the post-closure care expenditures are in accordance with the approved post-closure plan or otherwise justified. If the Agency does not instruct the insurer to make such reimbursements, the Agency must provide the owner or operator with a detailed written statement of reasons.
  - 6) The owner or operator must maintain the policy in full force and effect until the Agency consents to termination of the policy by the owner or operator as specified in subsection (e)(11) ~~of this Section~~. Failure to pay

the premium, without substitution of alternative financial assurance as specified in this Section, will constitute a significant violation of these regulations, warranting such remedy as the Board may impose pursuant to the Environmental Protection Act [415 ILCS 5]. Such violation will be deemed to begin upon receipt by the Agency of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

- 7) Each policy must contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.
- 8) The policy must provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the Agency. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Agency and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur, and the policy will remain in full force and effect, in the event that on or before the date of expiration one of the following occurs:
  - A) The Agency deems the facility abandoned;
  - B) The permit is terminated or revoked or a new permit is denied;
  - C) Closure is ordered by the Board or a U.S. district court or other court of competent jurisdiction;
  - D) The owner or operator is named as debtor in a voluntary or involuntary proceeding under 11 USC (Bankruptcy); or
  - E) The premium due is paid.
- 9) Whenever the current post-closure cost estimate increases to an amount greater than the face amount of the policy during the life of the facility, the owner or operator, within 60 days after the increase, must either cause the face amount to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Agency or obtain other financial assurance, as specified in this Section, to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the face amount may be reduced to the amount of the current post-closure cost estimate following written approval by the Agency.

- 10) Commencing on the date that liability to make payments pursuant to the policy accrues, the insurer must thereafter annually increase the face amount of the policy. Such increase must be equivalent to the face amount of the policy, less any payments made, multiplied by an amount equivalent to 85 percent of the most recent investment rate or of the equivalent coupon-issue yield announced by the U.S. Treasury for 26-week Treasury securities.
  - 11) The Agency must give written consent to the owner or operator that the owner or operator may terminate the insurance policy when either of the following occurs:
    - A) An owner or operator substitutes alternative financial assurance, as specified in this Section; or
    - B) The Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) ~~of this Section~~.
- f) Financial test and corporate guarantee for post-closure care.
- 1) An owner or operator may satisfy the requirements of this Section by demonstrating that it passes a financial test as specified in this subsection (f). To pass this test the owner or operator must meet the criteria of either subsection (f)(1)(A) or (f)(1)(B) ~~of this Section~~:
    - A) The owner or operator must have the following:
      - i) Two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5;
      - ii) Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates;
      - iii) Tangible net worth of at least \$10 million; and
      - iv) Assets in the United States amounting to at least 90 percent of its total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.
    - B) The owner or operator must have the following:

- i) A current rating for its most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's;
  - ii) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates and current plugging and abandonment cost estimates;
  - iii) Tangible net worth of at least \$10 million; and
  - iv) Assets located in the United States amounting to at least 90 percent of its total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.
- 2) The phrase "current closure and post-closure cost estimates," as used in subsection (f)(1) ~~of this Section~~, refers to the cost estimates required to be shown in subsections 1 through 4 of the letter from the owner's or operator's chief financial officer (see Section 724.251). The phrase "current plugging and abandonment cost estimates," as used in subsection (f)(1) ~~of this Section~~, refers to the cost estimates required to be shown in subsections 1 through 4 of the letter from the owner's or operator's chief financial officer (see 35 Ill. Adm. Code 704.240).
- 3) To demonstrate that it meets this test, the owner or operator must submit the following items to the Agency:
- A) A letter signed by the owner's or operator's chief financial officer and worded as specified in Section 724.251;
  - B) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and
  - C) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating the following:
    - i) The accountant has compared the data that the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and
    - ii) In connection with that procedure, no matters came to the accountant's attention that caused the accountant to believe that the specified data should be adjusted.

- 4) An owner or operator of a new facility must submit the items specified in subsection (f)(3) ~~of this Section~~ to the Agency at least 60 days before the date on which hazardous waste is first received for disposal.
- 5) After the initial submission of items specified in subsection (f)(3) ~~of this Section~~, the owner or operator must send updated information to the Agency within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in subsection (f)(3) ~~of this Section~~.
- 6) If the owner or operator no longer meets the requirements of subsection (f)(1) ~~of this Section~~, the owner or operator must send notice to the Agency of intent to establish alternative financial assurance, as specified in this Section. The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements the owner or operator must provide the alternative financial assurance within 120 days after the end of such fiscal year.
- 7) Based on a reasonable belief that the owner or operator may no longer meet the requirements of subsection (f)(1) ~~of this Section~~, the Agency may require reports of financial condition at any time from the owner or operator in addition to those specified in subsection (f)(3) ~~of this Section~~. If the Agency finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of subsection (f)(1) ~~of this Section~~, the owner or operator must provide alternative financial assurance, as specified in this Section, within 30 days after notification of such a finding.
- 8) The Agency may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in the accountant's report on examination of the owner's or operator's financial statements (see subsection (f)(3)(B) ~~of this Section~~). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Agency must evaluate other qualifications on an individual basis. The owner or operator must provide alternative financial assurance, as specified in this Section, within 30 days after notification of the disallowance.
- 9) During the period of post-closure care, the Agency must approve a decrease in the current post-closure cost estimate for which this test demonstrates financial assurance if the owner or operator demonstrates to the Agency that the amount of the cost estimate exceeds the remaining cost of post-closure care.
- 10) The owner or operator is no longer required to submit the items specified in subsection (f)(3) ~~of this Section~~ when either of the following occurs:

- A) An owner or operator substitutes alternative financial assurance, as specified in this Section; or
  - B) The Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) ~~of this Section~~.
- 11) An owner or operator may meet the requirements of this Section by obtaining a written guarantee, hereafter referred to as “corporate guarantee.” The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a “substantial business relationship” with the owner or operator. The guarantor must meet the requirements for owners or operators in subsections (f)(1) through (f)(9), and must comply with the terms of the corporate guarantee. The wording of the corporate guarantee must be that specified in Section 724.251. A certified copy of the corporate guarantee must accompany the items sent to the Agency, as specified in subsection (f)(3) ~~of this Section~~. One of these items must be the letter from the guarantor’s chief financial officer. If the guarantor’s parent corporation is also the parent corporation of the owner or operator, the letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a “substantial business relationship” with the owner or operator, this letter must describe this “substantial business relationship” and the value received in consideration of the guarantee. The terms of the corporate guarantee must provide as follows:
- A) That if the owner or operator fails to perform post-closure care of a facility covered by the corporate guarantee in accordance with the post-closure plan and other permit requirements whenever required to do so, the guarantor will do so or establish a trust fund as specified in subsection (a) ~~of this Section~~ in the name of the owner or operator.
  - B) That the corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Agency. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Agency, as evidenced by the return receipts.
  - C) That if the owner or operator fails to provide alternative financial assurance as specified in this Section and obtain the written approval of such alternative assurance from the Agency within 90 days after receipt by both the owner or operator and the Agency of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternative financial assurance in the name of the owner or operator.

- g) Use of multiple financial mechanisms. An owner or operator may satisfy the requirements of this Section by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds guaranteeing payment into a trust fund, letters of credit and insurance. The mechanisms must be as specified in subsections (a), (b), (d), and (e) ~~of this Section~~, respectively, except that it is the combination of mechanisms, rather than the single mechanism, that must provide financial assurance for an amount at least equal to the current post-closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, it may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The Agency may use any or all of the mechanisms to provide for post-closure care of the facility.
- h) Use of a financial mechanism for multiple facilities. An owner or operator may use a financial assurance mechanism specified in this Section to meet the requirements of this Section for more than one facility. Evidence of financial assurance submitted to the Agency must include a list showing, for each facility, the USEPA identification number, name, address, and the amount of funds for post-closure care assured by the mechanism. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. The amount of funds available to the Agency must be sufficient to close all of the owner or operator's facilities. In directing funds available through the mechanism for post-closure care of any of the facilities covered by the mechanism, the Agency may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.
- i) Release of the owner or operator from the requirements of this Section. Within 60 days after receiving certifications from the owner or operator and a qualified Professional Engineer that the post-closure care period has been completed for a hazardous waste disposal unit in accordance with the approved plan, the Agency must notify the owner or operator that it is no longer required to maintain financial assurance ~~for post-closure~~ for post-closure care of that unit, unless the Agency determines that post-closure care has not been in accordance with the approved post-closure plan. The Agency must provide the owner or operator a detailed written statement of any such determination that post-closure care has not been in accordance with the approved post-closure plan.
- j) Appeal. The following Agency actions are deemed to be permit modifications or refusals to modify for purposes of appeal to the Board (35 Ill. Adm. Code 702.184(e)(3)):
- 1) An increase in or a refusal to decrease the amount of a bond, letter of credit, or insurance;

- 2) Requiring alternative assurance upon a finding that an owner or operator or parent corporation no longer meets a financial test.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART N: LANDFILLS

##### **Section 724.414 Special Requirements for Bulk and Containerized Liquids**

- a) 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.
- b) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 9095B (Paint Filter Liquids Test), as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods," USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).
- c) Containers holding free liquids must not be placed in a landfill unless the following is true:
  - 1) All free-standing liquid fulfills one of the following:
    - A) It has been removed by decanting or other methods;
    - B) It has been mixed with sorbent or solidified so that free-standing liquid is no longer observed; or
    - C) It 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) Sorbents used to treat free liquids to be disposed of in landfills must be nonbiodegradable. Nonbiodegradable sorbents are the following: materials listed or described in subsection (d)(1) ~~of this Section~~; materials that pass one of the tests in subsection ~~(e)(2) of this Section~~ (d)(2); or materials that are determined by the Board to be nonbiodegradable through the adjusted standard procedure of 35 Ill. Adm. Code 104.
  - 1) Nonbiodegradable sorbents are the following:



- 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, etc.), calcium carbonate (organic free limestone), oxides/hydroxides (alumina, lime, silica (sand), diatomaceous earth, etc.), perlite (volcanic glass), expanded volcanic rock, volcanic ash, cement kiln dust, fly ash, rice hull ash, activated charcoal (activated carbon), etc.); 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 allylstrene and tertiary butyl copolymers, etc.). 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 are the following:
- 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(a);
  - 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(a); or
  - C) The sorbent material is determined to be non-biodegradable under OECD Guideline for Testing of Chemicals, Method 301B (CO<sub>2</sub> Evolution (Modified Sturm Test)), incorporated by reference in 35 Ill. Adm. Code 720.111(a).
- e) The placement of any liquid that is not a hazardous waste in a hazardous waste landfill is prohibited (35 Ill. Adm. Code 729.311), unless the Board finds that the owner or operator has demonstrated the following in a petition for an adjusted standard pursuant to Section 28.1 of the Act [415 ILCS 5/28.1] and 35 Ill. Adm. Code 101 and 104:
- 1) The only reasonably available alternative to the placement in a hazardous waste landfill is placement in a landfill or unlined surface impoundment, whether or not permitted or operating under interim status, that contains or which may reasonably be anticipated to contain hazardous waste; and

- 2) Placement in the hazardous waste landfill will not present a risk of contamination of any “underground source of drinking water” (as that term is defined in 35 Ill. Adm. Code 702.110).

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART W: DRIP PADS

##### **Section 724.670 Applicability**

- a) The requirements of this Subpart W apply to owners and operators of facilities that use new or existing drip pads to convey treated wood drippage, precipitation, or surface water run-on to an associated collection system.
  - 1) “Existing drip pads” are the following:
    - A) Those constructed before December 6, 1990; and
    - B) Those for which the owner or operator had a design and had entered into binding financial or other agreements for construction prior to December 6, 1990.
  - 2) All other drip pads are “new drip pads.”
  - 3) The requirements at Section 724.673(b)(3) to install a leak collection system applies only to those drip pads that were constructed after December 24, 1992 except for those constructed after December 24, 1992 for which the owner or operator had a design and has entered into binding financial or other agreements for construction prior to December 24, 1992.
- b) The owner or operator of any drip pad that is inside or under a structure that provides protection from precipitation so that neither run-off nor run-on is generated is not subject to regulation under Section ~~724.672(e)~~-724.673(e) or (f).
- c) The requirements of this subsection (c) are not applicable to the management of infrequent and incidental drippage in storage yards provided that the owner or operator maintains and complies with a written contingency plan that describes how the owner or operator will respond immediately to the discharge of infrequent and incidental drippage. At a minimum, the contingency plan must describe how the owner or operator will do the following:
  - 1) Clean up the drippage;
  - 2) Document the clean-up of the drippage;
  - 3) Retain documentation regarding the clean-up for three years; and

- 4) Manage the contaminated media in a manner consistent with State and federal regulations.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 724.671 Assessment of Existing Drip Pad Integrity**

- a) For each existing drip pad, the owner or operator must evaluate the drip pad and determine whether it meets all of the requirements of this Subpart W, except the requirements for liners and leak detection systems of Section 724.673(b). No later than June 6, 1991, the owner or operator must obtain and keep on file at the facility a written assessment of the drip pad, reviewed and certified by a qualified Professional Engineer that attests to the results of the evaluation. The assessment must be reviewed, updated, and re-certified annually until all upgrades, repairs or modifications necessary to achieve compliance with all the standards of Section 724.673 are complete. The evaluation must document the extent to which the drip pad meets each of the design and operating standards of Section 724.673, except the standards for liners and leak detection systems, specified in Section 724.673(b).
- b) The owner or operator must develop a written plan for upgrading, repairing, and modifying the drip pad to meet the requirements of Section 724.673(b) and submit the plan to the Agency no later than two years before the date that all repairs, upgrades and modifications will be complete. This written plan must describe all changes to be made to the drip pad in sufficient detail to document compliance with all the requirements of Section 724.673. The plan must be reviewed and certified by a qualified Professional Engineer.
- c) Upon completion of all upgrades, repairs, and modifications, the owner or operator must submit to the Agency, the as-built drawings for the drip pad, together with a certification by a qualified Professional Engineer attesting that the drip pad conforms to the drawings.
- d) If the drip pad is found to be leaking or unfit for use, the owner or operator must comply with the provisions of Section ~~724.672(m)~~ 724.673(m) or close the drip pad in accordance with Section 724.675.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## **SUBPART AA: AIR EMISSION STANDARDS FOR PROCESS VENTS**

### **Section 724.933 Standards: Closed-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 must comply with the provisions of this Section.

## 2) Implementation Schedule.

- A) 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 AA on the effective date that the facility becomes subject to the provisions of this Subpart AA must 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 AA for installation and startup.
- B) Any unit that began operation after December 21, 1990 and which was subject to the provisions of this Subpart AA when operation began must comply with the rules immediately (i.e., must have control devices installed and operating on startup of the affected unit); the 30-month implementation schedule does not apply.
- C) The owner or operator of any facility in existence on the effective date of a statutory or regulatory amendment that renders the facility subject to this Subpart AA must comply with all requirements of this Subpart AA as soon as practicable, but no later than 30 months after the effective date of the amendment. When control equipment required by this Subpart AA cannot be installed and begin operation by the effective date of the amendment, the facility owner or operator must prepare an implementation schedule that includes the following information: specific calendar dates for award of contracts or issuance of purchase orders for the control equipment, initiation of on-site installation of the control equipment, completion of the control equipment installation, and performance of any testing to demonstrate that the installed equipment meets the applicable standards of this Subpart AA. The owner or operator must enter the implementation schedule in the operating record or in a permanent, readily available file located at the facility.
- D) An owner or operator of a facility or unit that becomes newly subject to the requirements of this Subpart AA after December 8, 1997, due to an action other than those described in subsection (a)(2)(C) of this Section must comply with all applicable requirements immediately (i.e., the facility or unit must have control devices installed and operating on the date the facility or unit becomes subject to this Subpart AA; the 30-month implementation schedule does not apply).

- 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) ~~of this Section~~, except for periods not to exceed a total of five minutes during any two 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 (1,000 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 (Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), must be used to determine the compliance of a flare with the visible emission provisions of this Subpart AA. The observation period is two hours and must be used according to Reference 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:

$H_T$  = 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~~one 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

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

$C_i$  = the concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 (Measurement of Gaseous Organic Compound Emissions

by Gas Chromatography) in appendix A to 40 CFR 60 (Test Methods), and for carbon monoxide, by ASTM D 1946-90 (Standard Practice for Analysis of Reformed Gas by Gas Chromatography), each incorporated by reference in 35 Ill. Adm. Code 720.111

$H_i$  = 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 (Standard Test Method for Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High Precision Method)), incorporated by reference in 35 Ill. Adm. Code 720.111(a), 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 (Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)), 2A (Direct Measurement of Gas Volume through Pipes and Small Ducts), 2C (Determination of Gas Velocity and Volumetric Flow Rate in Small Stacks or Ducts (Standard Pitot Tube)), or 2D (Measurement of Gas Volume Flow Rates in Small Pipes and Ducts) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), 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) of this Section must be determined by the following equation:

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

Where:

$\log_{10}$  = ~~logarithm to the base 10~~

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

- 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:

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

- f) The owner or operator must 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 follows:
    - A) For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device must have accuracy of  $\pm 1$  percent 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  $\pm 1$  percent 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  $\pm 1$  percent 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 of the following:
  - 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  $\pm 1$  percent 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 of the following:
  - 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 must 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 must 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 percent 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 must 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~~ must be inspected and monitored in accordance with the following requirements:
      - A) An initial leak detection monitoring of the closed-vent system must be conducted by the owner or operator on or before the date that the system becomes subject to this Section. The owner or operator

must 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 above background.

- B) After initial leak detection monitoring required in subsection (l)(1)(A) ~~of this Section~~, the owner or operator must 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 must 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 (l)(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 must repair the defect or leak in accordance with the requirements of subsection (l)(3) ~~of this Section~~.
- D) The owner or operator must 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 must 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 must perform the inspections at least once every year.
  - C) In the event that a defect or leak is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (1)(3) ~~of this Section~~.
  - D) The owner or operator must maintain a record of the inspection and monitoring in accordance with the requirements specified in Section 724.935.
- 3) The owner or operator must 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 (1)(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 must 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 AA 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 must 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 Subpart X of this Part; or
  - B) The unit is equipped with and operating air emission controls in accordance with the applicable requirements of Subparts AA and CC of this Part or Subparts AA and CC of 35 Ill. Adm. Code 725; 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 (National Emission Standards for Hazardous Air Pollutants) or 63 (National Emission Standards for Hazardous Air Pollutants for Source Categories), each incorporated by reference in 35 Ill. Adm. Code 720.111(b).
- 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 Subpart O of this Part; or
  - B) The owner or operator has certified compliance in accordance with the interim status requirements of Subpart O of 35 Ill. Adm. Code 725.
- 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 Subpart H of 35 Ill. Adm. Code 726; or
  - B) The owner or operator has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of Subpart H of 35 Ill. Adm. Code 726.
- 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 (l)(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 (l)(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) ~~of this Section~~ as frequently as practicable during safe-to-monitor times.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 724.934 Test Methods and Procedures**

- a) Each owner or operator subject to the provisions of this Subpart AA must 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 (Determination of Volatile Organic Compound Leaks) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b).
  - 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 as follows:
    - A) Zero air (less than 10 ppm of hydrocarbon in air); and
    - 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) Reference Method 2 (Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), for velocity and volumetric flow rate.
  - B) Reference Method 18 (Measurement of Gaseous Organic Compound Emissions by Gas Chromatography) or Reference Method 25A (Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), for organic content. If Reference Method 25A is used, the organic HAP used as the calibration gas must be the single organic HAP representing the largest percent by volume of the emissions. The use of Reference Method 25A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.
  - C) Each performance test must consist of three separate runs, each run conducted for at least one 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:
    - i) For a source using Reference Method 18:

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

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 Reference Method 2

$n$  = 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 Reference Method 18

$MW_i$  = 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.

ii) For a source using Reference Method 25A:

$$E_h = Q \times C \times MW \times 0.0416 \times 10^{-6}$$

Where:

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

$Q$  = The volumetric flow rate of gases entering or exiting control device, dscm/h, as determined by Reference Method 2

$C$  = The organic concentration in ppm, dry basis, of compound  $i$  in the vent gas, as determined by Reference Method 25A

$MW$  = The molecular weight of propane, 44 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 = total organic emission rate, kg/y

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

H = 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 must 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 must 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 platforms.
  - C) Safe access to sampling platforms.
  - 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 AA, the owner or operator must 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 must 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 9060A (Total Organic Carbon) of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," USEPA publication number EPA-530/SW-846, incorporated by reference under 35 Ill. Adm. Code 720.111(a), or analyzed for its individual constituents.
  - 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 the following:
  - 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 AA or by the date when the waste is first managed in a waste management unit, whichever is later; and either of the following:
    - 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, direct measurement may be used to resolve the dispute, as specified in subsection (d)(1) ~~of this Section~~.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 724.935 Recordkeeping Requirements**

- a) Compliance Required.
  - 1) Each owner or operator subject to the provisions of this Subpart AA must 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 AA 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 must record the following information in the facility operating record:
  - 1) For facilities that comply with the provisions of Section 724.933(a)(2), an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The schedule

must also include a rationale of why the installation cannot be completed at an earlier date. The implementation schedule must be in the facility operating record by the effective date that the facility becomes subject to the provisions of this Subpart AA.

- 2) Up-to-date documentation of compliance with the process vent standards in Section 724.932, including the following:
  - A) Information and data identifying all affected process vents, annual throughput, and operating hours of each affected unit, estimated emission rates for each affected vent and for the overall facility (i.e., the total emissions for all affected vents at the facility), and the approximate location within the facility of each affected unit (e.g., identify the hazardous waste management units on a facility plot plan).
  - B) Information and data supporting determination of vent emissions and emission reductions achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, determinations of vent emissions and emission reductions must be made using operating parameter values (e.g., temperatures, flow rates, or vent stream organic compounds and concentrations) that represent the conditions that result in maximum organic emissions, such as when the waste management unit is operating at the highest load or capacity level reasonably expected to occur. If the owner or operator takes any action (e.g., managing a waste of different composition or increasing operating hours of affected waste management units) that would result in an increase in total organic emissions from affected process vents at the facility, then a new determination is required.
- 3) Where an owner or operator chooses to use test data to determine the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan. The test plan must include the following:
  - A) A description of how it is determined that the planned test is going to be conducted when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. This must include the estimated or design flow rate and organic content of each vent stream and define the acceptable operating ranges of key process and control device parameters during the test program.
  - B) A detailed engineering description of the closed-vent system and control device including the following:

- i) Manufacturer's name and model number of control device;
  - ii) Type of control device;
  - iii) Dimensions of the control device;
  - iv) Capacity; and
  - v) Construction materials.
- C) 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 planned analytical procedures for sample analysis.
- 4) Documentation of compliance with Section 724.933 must include the following information:
- A) A list of all information references and sources used in preparing the documentation.
  - B) Records, including the dates of each compliance test required by Section 724.933(k).
  - C) If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions," USEPA publication number EPA-450/2-81-005, incorporated by reference in 35 Ill. Adm. Code 720.111(a), or other engineering texts, approved by the Agency, that present basic control device design information. Documentation provided by the control device manufacturer or vendor that describes the control device design in accordance with subsections (b)(4)(C)(i) through (b)(4)(C)(vii) of ~~this Section~~ may be used to comply with this requirement. The design analysis must address the vent stream characteristics and control device operation parameters as specified below.
    - i) For a thermal vapor incinerator, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.
    - ii) For a catalytic vapor incinerator, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must

also establish the design minimum and average temperatures across the catalyst bed inlet and outlet.

- iii) For a boiler or process heater, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also establish the design minimum and average flame zone temperatures, combustion zone residence time and description of method and location where the vent stream is introduced into the combustion zone.
- iv) For a flare, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also consider the requirements specified in Section 724.933(d).
- v) For a condenser, the design analysis must consider the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis must also establish the design outlet organic compound concentration level, design average temperature of the condenser exhaust vent stream and design average temperatures of the coolant fluid at the condenser inlet and outlet.
- vi) For a carbon adsorption system, such as a fixed-bed adsorber that regenerates the carbon bed directly onsite in the control device, the design analysis must consider the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis must also establish the design exhaust vent stream organic compound concentration level, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total steam flow over the period of each complete carbon bed regeneration cycle, duration of the carbon bed steaming and cooling/drying cycles, design carbon bed temperature after regeneration, design carbon bed regeneration time and design service life of carbon.
- vii) For a carbon adsorption system, such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device, the design analysis must consider the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis must also establish the design outlet organic concentration level, capacity of carbon bed, type and

working capacity of activated carbon used for carbon bed and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.

- D) A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is or would be operating at the highest load or capacity level reasonably expected to occur.
  - E) A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 percent or greater unless the total organic concentration limit of Section 724.932(a) is achieved at an efficiency less than 95 weight percent or the total organic emission limits of Section 724.932(a) for affected process vents at the facility are attained by a control device involving vapor recovery at an efficiency less than 95 weight percent. A statement provided by the control device manufacturer or vendor certifying that the control equipment meets the design specifications may be used to comply with this requirement.
  - F) If performance tests are used to demonstrate compliance, all test results.
- c) Design documentation and monitoring operating and inspection information for each closed-vent system and control device required to comply with the provisions of this Part must be recorded and kept up-to-date in the facility operating record. The information must include the following:
- 1) Description and date of each modification that is made to the closed-vent system or control device design.
  - 2) Identification of operating parameter, description of monitoring device, and diagram of monitoring sensor location or locations used to comply with Section 724.933(f)(1) and (f)(2).
  - 3) Monitoring, operating and inspection information required by Section 724.933(f) through (k).
  - 4) Date, time, and duration of each period that occurs while the control device is operating when any monitored parameter exceeds the value established in the control device design analysis as specified below:
    - A) For a thermal vapor incinerator designed to operate with a minimum residence time of 0.50 second at a minimum temperature

of 760° C, any period when the combustion temperature is below 760° C.

- B) For a thermal vapor incinerator designed to operate with an organic emission reduction efficiency of 95 weight percent or greater, any period when the combustion zone temperature is more than 28° C below the design average combustion zone temperature established as a requirement of subsection (b)(4)(C)(i) ~~of this Section~~.
- C) For a catalytic vapor incinerator, any period when:
- i) Temperature of the vent stream at the catalyst bed inlet is more than 28° C below the average temperature of the inlet vent stream established as a requirement of subsection (b)(4)(C)(ii) ~~of this Section~~; or
  - ii) Temperature difference across the catalyst bed is less than 80% of the design average temperature difference established as a requirement of subsection (b)(4)(C)(ii) ~~of this Section~~.
- D) For a boiler or process heater, any period when either of the following occurs:
- i) Flame zone temperature is more than 28° C below the design average flame zone temperature established as a requirement of subsection (b)(4)(C)(iii) ~~of this Section~~; or
  - ii) Position changes where the vent stream is introduced to the combustion zone from the location established as a requirement of subsection (b)(4)(C)(iii) ~~of this Section~~.
- E) For a flare, period when the pilot flame is not ignited.
- F) For a condenser that complies with Section 724.933(f)(2)(F)(i), any period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the condenser are more than 20 percent greater than the design outlet organic compound concentration level established as a requirement of subsection (b)(4)(C)(v) ~~of this Section~~.
- G) For a condenser that complies with Section 724.933(f)(2)(F)(ii), any period when the following occurs:
- i) Temperature of the exhaust vent stream from the condenser is more than 6° C above the design average exhaust vent stream temperature established as a requirement of subsection (b)(4)(C)(v) ~~of this Section~~.



- ii) Temperature of the coolant fluid exiting the condenser is more than 6° C above the design average coolant fluid temperature at the condenser outlet established as a requirement of subsection (b)(4)(C)(v) ~~of this Section~~.
- H) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device and complies with Section 724.933(f)(2)(G)(i), any period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the carbon bed are more than 20 percent greater than the design exhaust vent stream organic compound concentration level established as a requirement of subsection (b)(4)(C)(vi) ~~of this Section~~.
  - I) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device and complies with Section 724.933(f)(2)(G)(ii), any period when the vent stream continues to flow through the control device beyond the predetermined carbon bed regeneration time established as a requirement of subsection (b)(4)(C)(vi) ~~of this Section~~.
- 5) Explanation for each period recorded under subsection (c)(4) ~~of this Section~~ of the cause for control device operating parameter exceeding the design value and the measures implemented to correct the control device operation.
  - 6) For a carbon adsorption system operated subject to requirements specified in Section 724.933(g) or (h)(2), any date when existing carbon in the control device is replaced with fresh carbon.
  - 7) For a carbon adsorption system operated subject to requirements specified in Section 724.933(h)(1), a log that records the following:
    - A) Date and time when control device is monitored for carbon breakthrough and the monitoring device reading; and
    - B) Date when existing carbon in the control device is replaced with fresh carbon.
  - 8) Date of each control device startup and shutdown.
  - 9) An owner or operator designating any components of a closed-vent system as unsafe to monitor pursuant to Section 724.933(o) must record in a log that is kept in the facility operating record the identification of closed-vent system components that are designated as unsafe to monitor in accordance with the requirements of Section 724.933(o), an explanation for each closed-vent system component stating why the closed-vent system

component is unsafe to monitor, and the plan for monitoring each closed-vent system component.

- 10) When each leak is detected, as specified in Section 724.933(l), the following information must be recorded:
  - A) The instrument identification number; the closed-vent system component identification number; and the operator name, initials, or identification number.
  - B) The date the leak was detected and the date of first attempt to repair the leak.
  - C) The date of successful repair of the leak.
  - D) Maximum instrument reading measured by Reference Method 21 (Determination of Volatile Organic Compound Leaks) of appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), after it is successfully repaired or determined to be nonrepairable.
  - E) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
    - i) The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.
    - ii) If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion.
- d) Records of the monitoring, operating, and inspection information required by subsections (c)(3) through (c)(10) ~~of this Section~~ must be kept at least three years following the date of each occurrence, measurement, corrective action, or record.
- e) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, the Agency must specify the appropriate recordkeeping requirements.
- f) Up-to-date information and data used to determine whether or not a process vent is subject to the requirements in Section 724.932, including supporting documentation as required by Section 724.934(d)(2), when application of the knowledge of the nature of the hazardous wastestream or the process by which it

was produced is used, must be recorded in a log that is kept in the facility operating record.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 724.936 Reporting Requirements**

- a) A semiannual report must be submitted by owners and operators subject to the requirements of this Subpart AA to the Agency by dates specified in the RCRA permit. The report must include the following information:
- 1) The USEPA identification number (35 Ill. Adm. Code 722.112), name, and address of the facility.
  - 2) For each month during the semiannual reporting period the following:
    - A) Dates when the control device did the following:
      - i) Exceeded or operated outside of the design specifications, as defined in Section 724.935(c)(4); and
      - ii) Such exceedances were not corrected within 24 hours, or that a flare operated with visible emissions, as defined by Reference Method 22 monitoring;
    - B) The duration and cause of each exceedance or visible emissions; and
    - C) Any corrective measures taken.
- b) If during the semiannual reporting period, the control device does not exceed or operate outside of the design specifications, as defined in Section 724.935(c)(4), for more than 24 hours or a flare does not operate with visible emissions, as defined in Section 724.933(d), a report to the Agency is not required.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

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

### **Section 724.981 Definitions**

As used in this Subpart CC, all terms will have the meaning given to them in 35 Ill. Adm. Code 725.981; section 1004 of the federal Resource Conservation and Recovery Act (42 USC 6903), incorporated by reference in 35 Ill. Adm. Code 720.111; and 35 Ill. Adm. Code 720 through 728 726.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 724.982 Standards: General**

- a) This Section applies to the management of hazardous waste in tanks, surface impoundments, and containers subject to this Subpart CC.
- b) The owner or operator must control air pollutant emissions from each waste management unit in accordance with the standards specified in Sections 724.984 through 724.987, as applicable to the waste management unit, except as provided for in subsection (c) ~~of this Section~~.
- c) A tank, surface impoundment, or container is exempt from standards specified in Sections 724.984 through 724.987, as applicable, provided that all hazardous waste placed in the waste management unit is one of the following:
  - 1) A tank, surface impoundment, or container for which all hazardous waste entering the unit has an average VO concentration at the point of waste origination of less than 500 parts per million by weight (ppmw). The average VO concentration must be determined by the procedures specified in Section 724.983(a). The owner or operator must review and update, as necessary, this determination at least once every 12 months following the date of the initial determination for the hazardous waste streams entering the unit.
  - 2) A tank, surface impoundment, or container for which the organic content of all the hazardous waste entering the waste management unit has been reduced by an organic destruction or removal process that achieves any one of the following conditions:
    - A) The process removes or destroys the organics contained in the hazardous waste to a level such that the average VO concentration of the hazardous waste at the point of waste treatment is less than the exit concentration limit ( $C_e$ ) established for the process. The average VO concentration of the hazardous waste at the point of waste treatment and the exit concentration limit for the process must be determined using the procedures specified in Section 724.983(b).
    - B) The process removes or destroys the organics contained in the hazardous waste to a level such that the organic reduction efficiency (R) for the process is equal to or greater than 95 percent, and the average VO concentration of the hazardous waste at the point of waste treatment is less than 100 ppmw. The organic reduction efficiency for the process and the average VO concentration of the hazardous waste at the point of waste treatment must be determined using the procedures specified in Section 724.983(b).

- C) The process removes or destroys the organics contained in the hazardous waste to such a level that the actual organic mass removal rate (MR) for the process is equal to or greater than the required organic mass removal rate (RMR) established for the process. The required organic mass removal rate and the actual organic mass removal rate for the process must be determined using the procedures specified in Section 724.983(b).
- D) The process is a biological process that destroys or degrades the organics contained in the hazardous waste so that either of the following conditions are met:
- i) The organic reduction efficiency (R) for the process is equal to or greater than 95 percent, and the organic biodegradation efficiency ( $R_{\text{bio}}$ ) for the process is equal to or greater than 95 percent. The organic reduction efficiency and the organic biodegradation efficiency for the process must be determined using the procedures specified in Section 724.983(b).
  - ii) The total actual organic mass biodegradation rate ( $\text{MR}_{\text{bio}}$ ) for all hazardous waste treated by the process is equal to or greater than the required organic mass removal rate (RMR). The required organic mass removal rate and the actual organic mass biodegradation rate for the process must be determined using the procedures specified in Section 724.983(b).
- E) The process removes or destroys the organics contained in the hazardous waste and meets all of the following conditions:
- i) From the point of waste origination through the point where the hazardous waste enters the treatment process, the hazardous waste is continuously managed in waste management units that use air emission controls in accordance with the standards specified in Sections 724.984 through 724.987, as applicable to the waste management unit.
  - ii) From the point of waste origination through the point where the hazardous waste enters the treatment process, any transfer of the hazardous waste is accomplished through continuous hard-piping or other closed system transfer that does not allow exposure of the waste to the atmosphere.

BOARD NOTE: The USEPA considers a drain system that meets the requirements of federal subpart RR of 40 CFR 63 (National Emission Standards for Individual Drain Systems) to be a closed system.

- iii) The average VO concentration of the hazardous waste at the point of waste treatment is less than the lowest average VO concentration at the point of waste origination, determined for each of the individual hazardous waste streams entering the process or 500 ppmw, whichever value is lower. The average VO concentration of each individual hazardous waste stream at the point of waste origination must be determined using the procedures specified in Section 724.983(a). The average VO concentration of the hazardous waste at the point of waste treatment must be determined using the procedures specified in Section 724.983(b).
- F) A process that removes or destroys the organics contained in the hazardous waste to a level such that the organic reduction efficiency (R) for the process is equal to or greater than 95 percent and the owner or operator certifies that the average VO concentration at the point of waste origination for each of the individual waste streams entering the process is less than 10,000 ppmw. The organic reduction efficiency for the process and the average VO concentration of the hazardous waste at the point of waste origination must be determined using the procedures specified in Section 724.983(b) and Section 724.983(a), respectively.
- G) A hazardous waste incinerator for which either of the following conditions is true:
- i) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart H of 35 Ill. Adm. Code 726; or
  - ii) The owner or operator has designed and operates the incinerator in accordance with the interim status requirements of Subpart O of 35 Ill. Adm. Code 725.
- H) A boiler or industrial furnace for which either of the following conditions is true:
- i) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart H of 35 Ill. Adm. Code 726; or

- ii) The owner or operator has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of Subpart O of 35 Ill. Adm. Code 725.
- I) For the purpose of determining the performance of an organic destruction or removal process in accordance with the conditions in each of subsections (c)(2)(A) through (c)(2)(F) ~~of this Section~~, the owner or operator must account for VO concentrations determined to be below the limit of detection of the analytical method by using the following VO concentration:
- i) If Reference Method 25D (Determination of the Volatile Organic Concentration of Waste Samples) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), is used for the analysis, one-half the blank value determined in Section 4.4 of the method or a value of 25 ppmw, whichever is less.
  - ii) If any other analytical method is used, one-half the sum of the limits of detection established for each organic constituent in the waste that has a Henry's law constant value at least 0.1 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.
- 3) A tank or surface impoundment used for biological treatment of hazardous waste in accordance with the requirements of subsection (c)(2)(D) ~~of this Section~~.
- 4) A tank, surface impoundment, or container for which all hazardous waste placed in the unit fulfills either of the following conditions:
- A) It meets the numerical concentration limits for organic hazardous constituents, applicable to the hazardous waste, as specified in Table T to 35 Ill. Adm. Code 728; or
  - B) The organic hazardous constituents in the waste have been treated by the treatment technology established by USEPA for the waste, as set forth in 35 Ill. Adm. Code 728.142(a), or have been removed or destroyed by an equivalent method of treatment approved by the Agency pursuant to 35 Ill. Adm. Code 728.142(b).
- 5) A tank used for bulk feed of hazardous waste to a waste incinerator and all of the following conditions are met:
- A) The tank is located inside an enclosure vented to a control device that is designed and operated in accordance with all applicable

requirements specified under federal subpart FF of 40 CFR 61 (National Emission Standard for Benzene Waste Operations), incorporated by reference in 35 Ill. Adm. Code 720.111(b), for a facility at which the total annual benzene quantity from the facility waste is equal to or greater than 10 megagrams (11 tons) per year;

- B) The enclosure and control device serving the tank were installed and began operation prior to November 25, 1996; and
  - C) The enclosure is 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 appendix B to 40 CFR 52.741 (VOM Measurement Techniques for Capture Efficiency), incorporated by reference in 35 Ill. Adm. Code 720.111(b). 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 or electrical equipment; or to direct air flow into the enclosure. The owner or operator must 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” annually.
- d) The Agency may at any time perform or request that the owner or operator perform a waste determination for a hazardous waste managed in a tank, surface impoundment, or container that is exempted from using air emission controls under the provisions of this Section, as follows:
- 1) The waste determination for average VO concentration of a hazardous waste at the point of waste origination must be performed using direct measurement in accordance with the applicable requirements of Section 724.983(a). The waste determination for a hazardous waste at the point of waste treatment must be performed in accordance with the applicable requirements of Section 724.983(b).
  - 2) In performing a waste determination pursuant to subsection (d)(1) ~~of this Section~~, the sample preparation and analysis must be conducted as follows:
    - A) In accordance with the method used by the owner or operator to perform the waste analysis, except in the case specified in subsection (d)(2)(B) ~~of this Section~~.
    - B) If the Agency determines that the method used by the owner or operator was not appropriate for the hazardous waste managed in the tank, surface impoundment, or container, then the Agency may choose an appropriate method.



- 3) Where the owner or operator is requested to perform the waste determination, the Agency may elect to have an authorized representative observe the collection of the hazardous waste samples used for the analysis.
- 4) Where the results of the waste determination performed or requested by the Agency do not agree with the results of a waste determination performed by the owner or operator using knowledge of the waste, then the results of the waste determination performed in accordance with the requirements of subsection (d)(1) ~~of this Section~~ must be used to establish compliance with the requirements of this Subpart CC.
- 5) Where the owner or operator has used an averaging period greater than one hour for determining the average VO concentration of a hazardous waste at the point of waste origination, the Agency may elect to establish compliance with this Subpart CC by performing or requesting that the owner or operator perform a waste determination using direct measurement based on waste samples collected within a one-hour period, as follows:
  - A) The average VO concentration of the hazardous waste at the point of waste origination must be determined by direct measurement in accordance with the requirements of Section 724.983(a).
  - B) Results of the waste determination performed or requested by the Agency showing that the average VO concentration of the hazardous waste at the point of waste origination is equal to or greater than 500 ppmw must constitute noncompliance with this Subpart CC, except in a case as provided for in subsection (d)(5)(C) ~~of this Section~~.
  - C) Where the average VO concentration of the hazardous waste at the point of waste origination previously has been determined by the owner or operator using an averaging period greater than one hour to be less than 500 ppmw but because of normal operating process variations the VO concentration of the hazardous waste determined by direct measurement for any given one-hour period may be equal to or greater than 500 ppmw, information that was used by the owner or operator to determine the average VO concentration of the hazardous waste (e.g., test results, measurements, calculations, and other documentation) and recorded in the facility records in accordance with the requirements of Section 724.983(a) and Section 724.989 must be considered by the Agency together with the results of the waste determination performed or requested by the Agency in establishing compliance with this Subpart CC.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 724.986 Standards: Containers**

- a) The provisions of this Section apply to the control of air pollutant emissions from containers for which Section 724.982(b) references the use of this Section for such air emission control.
- b) General requirements.
  - 1) The owner or operator must control air pollutant emissions from each container subject to this Section in accordance with the following requirements, as applicable to the container, except when the special provisions for waste stabilization processes specified in subsection (b)(2) ~~of this Section~~ apply to the container.
    - A) For a container having a design capacity greater than 0.1 m<sup>3</sup> (26 gal) and less than or equal to 0.46 m<sup>3</sup> (120 gal), the owner or operator must control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c) ~~of this Section~~.
    - B) For a container having a design capacity greater than 0.46 m<sup>3</sup> (120 gal) that is not in light material service, the owner or operator must control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c) ~~of this Section~~.
    - C) For a container having a design capacity greater than 0.46 m<sup>3</sup> (120 gal) that is in light material service, the owner or operator must control air pollutant emissions from the container in accordance with the Container Level 2 standards specified in subsection (d) ~~of this Section~~.
  - 2) When a container having a design capacity greater than 0.1 m<sup>3</sup> (26 gal) is used for treatment of a hazardous waste by a waste stabilization process, the owner or operator must control air pollutant emissions from the container in accordance with the Container Level 3 standards specified in subsection (e) of this Section at those times during the waste stabilization process when the hazardous waste in the container is exposed to the atmosphere.
- c) Container Level 1 standards.
  - 1) A container using Container Level 1 controls is one of the following:
    - A) A container that meets the applicable USDOT regulations on packaging hazardous materials for transportation, as specified in subsection (f) ~~of this Section~~.

- B) A container equipped with a cover and closure devices that form a continuous barrier over the container openings so that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container (e.g., a lid on a drum or a suitably secured tarp on a roll-off box) or may be an integral part of the container structural design (e.g., a “portable tank” or bulk cargo container equipped with a screw-type cap).
  - C) An open-top container in which an organic-vapor suppressing barrier is placed on or over the hazardous waste in the container so that no hazardous waste is exposed to the atmosphere. One example of such a barrier is application of a suitable organic-vapor suppressing foam.
- 2) A container used to meet the requirements of subsection (c)(1)(B) or (c)(1)(C) ~~of this Section~~ must be equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the hazardous waste to the atmosphere and to maintain the equipment integrity for as long as it is in service. Factors to be considered in selecting the materials of construction and designing the cover and closure devices must include the following: the organic vapor permeability; the effects of contact with the hazardous waste or its vapor managed in the container; the effects of outdoor exposure of the closure device or cover material to wind, moisture, and sunlight; and the operating practices for which the container is intended to be used.
- 3) Whenever a hazardous waste is in a container using Container Level 1 controls, the owner or operator must install all covers and closure devices for the container, as applicable to the container, and secure and maintain each closure device in the closed position, except as follows:
- A) Opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container, as follows:
    - i) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator must promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.
    - ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator must promptly secure the

closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.

- B) Opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container, as follows:
- i) For the purpose of meeting the requirements of this Section, an empty container, as defined in 35 Ill. Adm. Code 721.107(b), may be open to the atmosphere at any time (i.e., covers and closure devices are not required to be secured in the closed position on an empty container).
  - ii) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container, as defined in 35 Ill. Adm. Code 721.107(b), the owner or operator must promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.
- C) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator must promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.
- D) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device that vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container 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 so that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the owner or operator based on container 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 internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

- E) 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 of containers using Container Level 1 controls must inspect the containers and their covers and closure devices, as follows:
- A) In the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility (i.e., it does not meet the conditions for an empty container, as specified in 35 Ill. Adm. Code 721.107(b)), the owner or operator must visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection must be conducted on or before the date on which the container is accepted at the facility (i.e., the date when the container becomes subject to the Subpart CC container standards). For the purposes of this requirement, the date of acceptance is the date of signature that the facility owner or operator enters on Item 20 of the Uniform Hazardous Waste Manifest, as set forth in the appendix to 40 CFR 262 (Uniform Hazardous Waste Manifest and Instructions (EPA Forms 8700-22 and 8700-22A and Their Instructions)), incorporated by reference in 35 Ill. Adm. Code 720.111(b) (USEPA Forms 8700-22 and 8700-22A), as required under Section 724.171. If a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (c)(4)(C) of this Section.

- B) In the case when a container used for managing hazardous waste remains at the facility for a period of one year or more, the owner or operator must visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (c)(4)(C) ~~of this Section~~.
  - C) When a defect is detected for the container, cover, or closure devices, the owner or operator must make first efforts at repair of the defect no later than 24 hours after detection and repair must be completed as soon as possible but no later than five calendar days after detection. If repair of a defect cannot be completed within five calendar days, then the hazardous waste must be removed from the container and the container must not be used to manage hazardous waste until the defect is repaired.
- 5) The owner or operator must maintain at the facility a copy of the procedure used to determine that containers with capacity of 0.46 m<sup>3</sup> (120 gal) or greater that do not meet applicable USDOT regulations, as specified in subsection (f) ~~of this Section~~, are not managing hazardous waste in light material service.
- d) Container Level 2 standards.
- 1) A container using Container Level 2 controls is one of the following:
    - A) A container that meets the applicable USDOT regulations on packaging hazardous materials for transportation, as specified in subsection (f) ~~of this Section~~.
    - B) A container that operates with no detectable organic emissions, as defined in 35 Ill. Adm. Code 725.981, and determined in accordance with the procedure specified in subsection (g) ~~of this Section~~.
    - C) A container that has been demonstrated within the preceding 12 months to be vapor-tight by using Reference Method 27 (Determination of Vapor Tightness of Gasoline Delivery Tank Using Pressure-Vacuum Test) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), in accordance with the procedure specified in subsection (h) ~~of this Section~~.
  - 2) Transfer of hazardous waste in or out of a container using Container Level 2 controls must be conducted in such a manner as to minimize exposure of

the hazardous waste to the atmosphere, to the extent practical, considering the physical properties of the hazardous waste and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that the USEPA considers to meet the requirements of this subsection (d)(2) include using any one of the following: a submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous waste is filled and subsequently purging the transfer line before removing it from the container opening.

- 3) Whenever a hazardous waste is in a container using Container Level 2 controls, the owner or operator must install all covers and closure devices for the container, and secure and maintain each closure device in the closed position, except as follows:
  - A) Opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container, as follows:
    - i) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator must promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.
    - ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator must promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon whichever of the following conditions occurs first: the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container.
  - B) Opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container, as follows:
    - i) For the purpose of meeting the requirements of this Section, an empty container, as defined in 35 Ill. Adm. Code 721.107(b), may be open to the atmosphere at any

time (i.e., covers and closure devices are not required to be secured in the closed position on an empty container).

- ii) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container, as defined in 35 Ill. Adm. Code 721.107(b), the owner or operator must promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.
- C) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator must promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.
- D) Opening of a spring-loaded, pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device that vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device must be designed to operate with no detectable organic emission when the device is secured in the closed position. The settings at which the device opens must be established so that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the owner or operator based on container 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 internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.



- E) 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 of containers using Container Level 2 controls must inspect the containers and their covers and closure devices, as follows:
- A) In the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility (i.e., it does not meet the conditions for an empty container as specified in 35 Ill. Adm. Code 721.107(b)), the owner or operator must visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection must be conducted on or before the date on which the container is accepted at the facility (i.e., the date when the container becomes subject to the Subpart CC container standards). For the purposes of this requirement, the date of acceptance is the date of signature that the facility owner or operator enters on Item 20 of the Uniform Hazardous Waste Manifest, in the appendix to 40 CFR 262 (Uniform Hazardous Waste Manifest and Instructions (USEPA Forms 8700-22 and 8700-22A and Their Instructions)), as required under Section 724.171. If a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (d)(4)(C) ~~of this Section~~.
  - B) In the case when a container used for managing hazardous waste remains at the facility for a period of one year or more, the owner or operator must visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (d)(4)(C) ~~of this Section~~.
  - C) When a defect is detected for the container, cover, or closure devices, the owner or operator must make first efforts at repair of the defect no later than 24 hours after detection, and repair must be completed as soon as possible but no later than five calendar days after detection. If repair of a defect cannot be completed within five calendar days, then the hazardous waste must be removed from the container and the container must not be used to manage hazardous waste until the defect is repaired.

- e) Container Level 3 standards.
- 1) A container using Container Level 3 controls is one of the following:
    - A) A container that is vented directly through a closed-vent system to a control device in accordance with the requirements of subsection (e)(2)(B) ~~of this Section.~~
    - B) A container that is vented inside an enclosure that is exhausted through a closed-vent system to a control device in accordance with the requirements of subsections (e)(2)(A) and (e)(2)(B) ~~of this Section.~~
  - 2) The owner or operator must meet the following requirements, as applicable to the type of air emission control equipment selected by the owner or operator:
    - A) The container 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 appendix B to 40 CFR 52.741 (VOM Measurement Techniques for Capture Efficiency), incorporated by reference in 35 Ill. Adm. Code 720.111(b). The enclosure may have permanent or temporary openings to allow worker access; passage of containers through the enclosure by conveyor or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator must 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.
    - B) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 724.987.
  - 3) Safety devices, as defined in 35 Ill. Adm. Code 725.981, may be installed and operated as necessary on any container, enclosure, closed-vent system, or control device used to comply with the requirements of subsection (e)(1) ~~of this Section.~~
  - 4) Owners and operators using Container Level 3 controls in accordance with the provisions of this Subpart CC must inspect and monitor the closed-vent systems and control devices, as specified in Section 724.987.
  - 5) Owners and operators that use Container Level 3 controls in accordance with the provisions of this Subpart CC must prepare and maintain the records specified in Section 724.989(d).

- 6) The transfer of hazardous waste into or out of a container using Container Level 3 controls must be conducted in such a manner as to minimize exposure of the hazardous waste to the atmosphere, to the extent practical considering the physical properties of the hazardous waste and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that USEPA considers to meet the requirements of this subsection (e)(6) include using any one of the following: the use of a submerged-fill pipe or other submerged-fill method to load liquids into the container; the use of a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or the use of a fitted opening in the top of a container through which the hazardous waste is filled and subsequently purging the transfer line before removing it from the container opening.
- f) For the purpose of compliance with subsection (c)(1)(A) or (d)(1)(A) ~~of this Section~~, containers must be used that meet the applicable USDOT regulations on packaging hazardous materials for transportation, as follows:
  - 1) The container meets the applicable requirements specified by USDOT in 49 CFR 178 (Specifications for Packaging), or 49 CFR 179 (Specifications for Tank Cars), each incorporated by reference in 35 Ill. Adm. Code 720.111(b).
  - 2) Hazardous waste is managed in the container in accordance with the applicable requirements specified by USDOT in subpart B of 49 CFR 107 (Exemptions), 49 CFR 172 (Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements), 49 CFR 173 (Shippers—General Requirements for Shipments and Packages), and 49 CFR 180 (Continuing Qualification and Maintenance of Packagings), each incorporated by reference in 35 Ill. Adm. Code 720.111(b).
  - 3) For the purpose of complying with this Subpart CC, no exceptions to the 49 CFR 178 or 179 regulations are allowed, except as provided for in subsection (f)(4) ~~of this Section~~.
  - 4) For a lab pack that is managed in accordance with the USDOT requirements of 49 CFR 178 (Specifications for Packagings), for the purpose of complying with this Subpart CC, an owner or operator may comply with the exceptions for combination packagings specified by USDOT in 49 CFR 173.12(b) (Exceptions for Shipments of Waste Materials), incorporated by reference in 35 Ill. Adm. Code 720.111(b).
- g) To determine compliance with the no detectable organic emissions requirement of subsection (d)(1)(B) ~~of this Section~~, the procedure specified in Section 724.983(d) must be used.

- 1) Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the container, its cover, and associated closure devices, as applicable to the container, must be checked. Potential leak interfaces that are associated with containers include, but are not limited to, the following: the interface of the cover rim and the container wall; the periphery of any opening on the container or container cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.
  - 2) The test must be performed when the container is filled with a material having a volatile organic concentration representative of the range of volatile organic concentrations for the hazardous wastes expected to be managed in this type of container. During the test, the container cover and closure devices must be secured in the closed position.
- h) Procedure for determining a container to be vapor-tight using Reference Method 27 for the purpose of complying with subsection (d)(1)(C) ~~of this Section~~.
- 1) The test must be performed in accordance with Reference Method 27.
  - 2) A pressure measurement device must be used that has a precision of  $\pm 2.5$  mm (0.098 in) water and that is capable of measuring above the pressure at which the container is to be tested for vapor tightness.
  - 3) If the test results determined by Reference Method 27 indicate that the container sustains a pressure change less than or equal to 750 Pascals (0.11 psig) within five minutes after it is pressurized to a minimum of 4,500 Pascals (0.65 psig), then the container is determined to be vapor-tight.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART DD: CONTAINMENT BUILDINGS

##### **Section 724.1101 Design and Operating Standards**

- a) All containment buildings must comply with the following design and operating standards:
  - 1) The containment building must be completely enclosed with a floor, walls, and a roof to prevent exposure to the elements (e.g., precipitation, wind, run on) and to assure containment of managed wastes.
  - 2) The floor and containment walls of the unit, including the secondary containment system if required under subsection (b) ~~of this Section~~, must be designed and constructed of materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit, and to prevent failure due to

pressure gradients, settlement, compression, or uplift, physical contact with the hazardous wastes to which they are exposed; climatic conditions; and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls. The unit must be designed so that it has sufficient structural strength to prevent collapse or other failure. All surfaces to be in contact with hazardous wastes must be chemically compatible with those wastes. The containment building must meet the structural integrity requirements established by professional organizations generally recognized by the industry such as the American Concrete Institute (ACI) and the American Society of Testing Materials (ASTM). If appropriate to the nature of the waste management operation to take place in the unit, an exception to the structural strength requirement may be made for light-weight doors and windows that meet the following criteria:

- A) They provide an effective barrier against fugitive dust emissions under subsection (c)(1)(C) ~~of this Section~~; and
  - B) The unit is designed and operated in a fashion that assures that wastes will not actually come in contact with these openings.
- 3) Incompatible hazardous wastes or treatment reagents must not be placed in the unit or its secondary containment system if they could cause the unit or secondary containment system to leak, corrode, or otherwise fail.
- 4) A containment building must have a primary barrier designed to withstand the movement of personnel, waste, and handling equipment in the unit during the operating life of the unit and appropriate for the physical and chemical characteristics of the waste to be managed.
- b) For a containment building used to manage hazardous wastes containing free liquids or treated with free liquids (the presence of which is determined by the paint filter test, a visual examination, or other appropriate means), the owner or operator must include the following:
- 1) A primary barrier designed and constructed of materials to prevent the migration of hazardous constituents into the barrier (e.g., a geomembrane covered by a concrete wear surface).
  - 2) A liquid collection and removal system to minimize the accumulation of liquid on the primary barrier of the containment building, as follows:
    - A) The primary barrier must be sloped to drain liquids to the associated collection system; and
    - B) Liquids and waste must be collected and removed to minimize hydraulic head on the containment system at the earliest practicable time.

- 3) A secondary containment system including a secondary barrier designed and constructed to prevent migration of hazardous constituents into the barrier, and a leak detection system that is capable of detecting failure of the primary barrier and collecting accumulated hazardous wastes and liquids at the earliest practicable time.
  - A) The requirements of the leak detection component of the secondary containment system are satisfied by installation of a system that is, at a minimum, as follows:
    - i) It is constructed with a bottom slope of 1 percent or more; and
    - ii) It is constructed of a granular drainage material with a hydraulic conductivity of  $1 \times 10^{-2}$  cm/sec or more and a thickness of 12 inches (30.5 cm) or more, or constructed of synthetic or geonet drainage materials with a transmissivity of  $3 \times 10^{-5}$  m<sup>2</sup>/sec or more.
  - B) If treatment is to be conducted in the building, an area in which such treatment will be conducted must be designed to prevent the release of liquids, wet materials, or liquid aerosols to other portions of the building.
  - C) The secondary containment system must be constructed of materials that are chemically resistant to the waste and liquids managed in the containment building and of sufficient strength and thickness to prevent collapse under the pressure exerted by overlaying materials and by any equipment used in the containment building. (Containment buildings can serve as secondary containment systems for tanks placed within the building under certain conditions. A containment building can serve as an external liner system for a tank, provided it meets the requirements of Section 724.193(e)(1). In addition, the containment building must meet the requirements of Section 724.193(b) and Sections 724.193(c)(1) and (c)(2) to be an acceptable secondary containment system for a tank.)
- 4) For existing units other than 90-day generator units, USEPA may delay the secondary containment requirement for up to two years, based on a demonstration by the owner or operator that the unit substantially meets the standards of this Subpart DD. In making this demonstration, the owner or operator must have done the following:
  - A) Provided written notice to USEPA of their request by November 16, 1992. This notification must have described the unit and its operating practices with specific reference to the performance of

existing systems, and specific plans for retrofitting the unit with secondary containment;

- B) Responded to any comments from USEPA on these plans within 30 days; and
  - C) Fulfilled the terms of the revised plans, if such plans are approved by USEPA.
- c) An owner or operator of a containment building must do the following:
- 1) It must use controls and practice to ensure containment of the hazardous waste within the unit, and at a minimum:
    - A) Maintain the primary barrier to be free of significant cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be release from the primary barrier;
    - B) Maintain the level of the stored or treated hazardous waste within the containment walls of the unit so that the height of any containment wall is not exceeded;
    - C) Take measures to prevent the tracking of hazardous waste out of the unit by personnel or by equipment used in handling the waste. An area must be designated to decontaminate equipment and any rinsate must be collected and properly managed; and
    - D) Take measures to control fugitive dust emissions such that any openings (doors, windows, vents, cracks, etc.) exhibit no visible emissions (see Reference Method 22 (Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares) in appendix A to 40 CFR 60 (Test Methods)), incorporated by reference in 35 Ill. Adm. Code 720.111(b). In addition, all associated particulate collection devices (e.g., fabric filter, electrostatic precipitator, etc.) must be operated and maintained with sound air pollution control practices (see 40 CFR 60 for guidance). This state of no visible emissions must be maintained effectively at all times during routine operating and maintenance conditions, including when vehicles and personnel are entering and exiting the unit.

BOARD NOTE: At 40 CFR 264.1101(c)(1)(iv) (2005), USEPA cites “40 CFR part 60, subpart 292.” At 57 Fed. Reg. 37217 (Aug. 18, 1992), USEPA repeats this citation in the preamble discussion of adoption of the rules. No such provision exists in the Code of Federal Regulations. While 40 CFR 60.292 of the federal regulations pertains to control of fugitive dust emissions, that

provision is limited in its application to glass melting furnaces. The Board has chosen to use the general citation: “40 CFR 60.”

- 2) It must obtain and keep on site a certification by a qualified Professional Engineer that the containment building design meets the requirements of subsections (a) through (c) ~~of this Section~~.
- 3) Throughout the active life of the containment building, if the owner or operator detects a condition that could lead to or has caused a release of hazardous waste, it must repair the condition promptly, in accordance with the following procedures:
  - A) Upon detection of a condition that has led to a release of hazardous wastes (e.g., upon detection of leakage from the primary barrier) the owner or operator must do the following:
    - i) Enter a record of the discovery in the facility operating record;
    - ii) Immediately remove the portion of the containment building affected by the condition from service;
    - iii) Determine what steps must be taken to repair the containment building, remove any leakage from the secondary collection system, and establish a schedule for accomplishing the cleanup and repairs; and
    - iv) Within seven days after the discovery of the condition, notify the Agency in writing of the condition, and within 14 working days, provide a written notice to the Agency with a description of the steps taken to repair the containment building, and the schedule for accomplishing the work.
  - B) The Agency must review the information submitted, make a determination in accordance with Section 34 of the Act, regarding whether the containment building must be removed from service completely or partially until repairs and cleanup are complete, and notify the owner or operator of the determination and the underlying rationale in writing.
  - C) Upon completing all repairs and cleanup the owner and operator must notify the Agency in writing and provide a verification, signed by a qualified, registered professional engineer, that the repairs and cleanup have been completed according to the written plan submitted in accordance with subsection (c)(3)(A)(iv) ~~of this Section~~.



- 4) It must inspect and record in the facility's operating record, at least once every seven days, data gathered from monitoring and leak detection equipment, as well as the containment building and the area immediately surrounding the containment building, to detect signs of releases of hazardous waste..
- d) For a containment building that contains both areas with and without secondary containment, the owner or operator must do the following:
  - 1) Design and operate each area in accordance with the requirements enumerated in subsections (a) through (c) ~~of this Section~~;
  - 2) Take measures to prevent the release of liquids or wet materials into areas without secondary containment; and
  - 3) Maintain in the facility's operating log a written description of the operating procedures used to maintain the integrity of areas without secondary containment.
- e) Notwithstanding any other provision of this Subpart DD, the Agency must, in writing, allow the use of alternatives to the requirements for secondary containment for a permitted containment building where the Agency has determined that the facility owner or operator has adequately demonstrated that the only free liquids in the unit are limited amounts of dust suppression liquids required to meet occupational health and safety requirements, and where containment of managed wastes and liquids can be assured without a secondary containment system.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 724.1102 Closure and Post-Closure Care**

- a) At closure of a containment building, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate and manage them as hazardous waste, unless 35 Ill. Adm. Code 721.103(e) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for containment buildings must meet all of the requirements specified in Subparts G and H of ~~35 Ill. Adm. Code 739~~ of this Part.
- 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, he must close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills (~~35 Ill. Adm. Code Section~~ 724.310). In addition, for the purposes of

closure, post-closure, and financial responsibility, such a containment building is then considered to be a landfill, and the owner or operator must meet all the requirements for landfills specified in Subparts G and H of ~~35 Ill. Adm. Code 739~~ of this Part.

(Source: Amended at 40 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  
FACILITIES

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

**SOURCE:** Adopted in R81-22 at 5 Ill. Reg. 9781, effective May 17, 1982; amended and codified in R81-22 at 6 Ill. Reg. 4828, effective May 17, 1982; amended in R82-18 at 7 Ill. Reg. 2518, effective February 22, 1983; amended in R82-19 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. 17620, effective September 28, 1998; amended in R98-21/R99-2/R99-7 at 23 Ill. Reg. 1850, effective January 19, 1999; amended in R99-15 at 23 Ill. Reg. 9168, effective July 26, 1999; amended in R00-5 at 24 Ill. Reg. 1076, effective January 6, 2000; amended in R00-13 at 24 Ill. Reg. 9575, effective June 20, 2000; amended in R03-7 at 27 Ill. Reg. 4187, effective February 14, 2003; amended in R05-8 at 29 Ill. Reg. 6028, effective April 13, 2005; amended in R05-2 at 29 Ill. Reg. 6389, effective April 22, 2005; amended in R06-5/R06-6/R06-7 at 30 Ill. Reg. 3460, effective February 23, 2006; amended in R06-16/R06-17/R06-18 at 31 Ill. Reg. 1031, effective December 20, 2006; amended in R07-5/R07-14 at 32 Ill. Reg. 12566, effective July 14, 2008; amended in R09-3 at 33



Ill. Reg. 1155, effective December 30, 2008; amended in R09-16/R10-4 at 34 Ill. Reg. 18890, effective November 12, 2010; amended in R11-2/R11-16 at 35 Ill. Reg. 18052, effective October 14, 2011; amended in R13-15 at 37 Ill. Reg. 17811, effective October 24, 2013; amended in R15-1 at 39 Ill. Reg. 1746, effective January 12, 2015; amended in R16-7 at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

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

### Section 725.173 Operating Record

- a) The owner or operator must keep a written operating record at the facility.
- b) The following information must be recorded as it becomes available and maintained in the operating record for three years unless otherwise provided as follows:
  - 1) A description and the quantity of each hazardous waste received and the methods and dates of its treatment, storage, or disposal at the facility, as required by Appendix A to this Part. This information must be maintained in the operating record until closure of the facility;
  - 2) The location of each hazardous waste within the facility and the quantity at each location. For disposal facilities the location and quantity of each hazardous waste must be recorded on a map or diagram that shows each cell or disposal area. For all facilities this information must include cross-references to manifest document numbers if the waste was accompanied by a manifest. This information must be maintained in the operating record until closure of the facility;

BOARD NOTE: See Sections 725.219, 725.379, and 725.409 for related requirements.

- 3) Records and results of waste analysis, waste determinations, and trial tests performed, as specified in Sections 725.113, 725.300, 725.325, 725.352, 725.373, 725.414, 725.441, 725.475, 725.502, 725.934, 725.963, and 725.984 and 35 Ill. Adm. Code 728.104(a) and 728.107;
- 4) Summary reports and details of all incidents that require implementing the contingency plan, as specified in Section 725.156(j);
- 5) Records and results of inspections, as required by Section 725.115(d) (except these data need be kept only three years);
- 6) Monitoring, testing, or analytical data, where required by Subpart F of this Part or Sections 725.119, 725.194, 725.291, 725.293, 725.295, 725.324, 725.326, 725.355, 725.360, 725.376, 725.378, 725.380(d)(1), 725.402, 725.404, 725.447, 725.477, 725.934(c) through (f), 725.935, 725.963(d) through (i), 725.964, and ~~725.1083~~ 725.983 through 725.990. Maintain in

the operating record for three years, except for records and results pertaining to groundwater monitoring and cleanup, and response action plans for surface impoundments, waste piles, and landfills, which must be maintained in the operating record until closure of the facility;

BOARD NOTE: As required by Section 725.194, monitoring data at disposal facilities must be kept throughout the post-closure period.

- 7) All closure cost estimates under Section 725.242 and, for disposal facilities, all post-closure cost estimates under Section 725.244 must be maintained in the operating record until closure of the facility;
- 8) Records of the quantities (and date of placement) for each shipment of hazardous waste placed in land disposal units under an extension of the effective date of any land disposal restriction granted pursuant to 35 Ill. Adm. Code 728.105, a petition pursuant to 35 Ill. Adm. Code 728.106, or a certification under 35 Ill. Adm. Code 728.108 and the applicable notice required of a generator under 35 Ill. Adm. Code 728.107(a). All of this information must be maintained in the operating record until closure of the facility;
- 9) For an off-site treatment facility, a copy of the notice and the certification and demonstration, if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108;
- 10) For an on-site treatment facility, the information contained in the notice (except the manifest number) and the certification and demonstration, if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108;
- 11) For an off-site land disposal facility, a copy of the notice and the certification and demonstration, if applicable, required of the generator or the owner or operator of a treatment facility under 35 Ill. Adm. Code 728.107 or 728.108;
- 12) For an on-site land disposal facility, the information contained in the notice required of the generator or owner or operator of a treatment facility under 35 Ill. Adm. Code 728.107, except for the manifest number, and the certification and demonstration, if applicable, required under 35 Ill. Adm. Code 728.107 or 728.108;
- 13) For an off-site storage facility, a copy of the notice and the certification and demonstration, if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108;
- 14) For an on-site storage facility, the information contained in the notice (except the manifest number) and the certification and demonstration, if

applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108; and

- 15) Monitoring, testing or analytical data, and corrective action, where required by Sections 725.190 and 725.193(d)(2) and (d)(5), and the certification, as required by Section ~~725.196(f)~~ 725.296(f), must be maintained in the operating record until closure of the facility.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## SUBPART O: INCINERATORS

### Section 725.440 Applicability

- a) The regulations in this Subpart O apply to owners or operators of hazardous waste incinerators (as defined in 35 Ill. Adm. Code 720.110), except as 35 Ill. Adm. Code 724.101 provides otherwise.
- b) Integration of the MACT standards.
  - 1) Except as provided by subsections (b)(2) and (b)(3) ~~of this Section~~, the standards of this Part no longer apply when an owner or operator demonstrates compliance with the maximum achievable control technology (MACT) requirements of subpart EEE of 40 CFR 63 (National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors), incorporated by reference in 35 Ill. Adm. Code 720.111(b), by conducting a comprehensive performance test and submitting to the Agency a Notification of Compliance, under 40 CFR 63.1207(j) and ~~63.1210(b)~~ 63.1210(d), documenting compliance with the requirements of subpart EEE of 40 CFR 63.
  - 2) The MACT standards of subpart EEE of 40 CFR 63 do not replace the closure requirements of Section 724.451 or the applicable requirements of Subparts A through H, BB, and CC of this Part.
  - 3) Section 725.445, generally prohibiting burning of hazardous waste during startup and shutdown, remains in effect if the owner or operator elects to comply with 35 Ill. Adm. Code 703.320(b)(1)(A) to minimize emissions of toxic compounds from startup and shutdown.

BOARD NOTE: Operating conditions used to determine effective treatment of hazardous waste remain effective after the owner or operator demonstrates compliance with the standards of subpart EEE of 40 CFR 63. Sections 9.1 and 39.5 of the Environmental Protection Act [415 ILCS 5/9.1 and 39.5] make the federal MACT standards directly applicable to entities in Illinois and authorize the Agency to issue permits based on the federal standards.

- c) An owner or operator of an incinerator that burns hazardous waste is exempt from all of the requirements of this Subpart O, except Section 725.451 (Closure), provided that the owner or operator has documented, in writing, that the waste would not reasonably be expected to contain any of the hazardous constituents listed in Appendix H to 35 Ill. Adm. Code 721 and such documentation is retained at the facility, if the waste to be burned is one of the following:
- 1) It is listed as a hazardous waste in Subpart D of 35 Ill. Adm. Code 721, solely because it is ignitable (Hazard Code I), corrosive (Hazard Code C), or both;
  - 2) It is listed as a hazardous waste in Subpart D of 35 Ill. Adm. Code 721, solely because it is reactive (Hazard Code R) for characteristics other than those listed in 35 Ill. Adm. Code 721.123(a)(4) and (a)(5), and will not be burned when other hazardous wastes are present in the combustion zone;
  - 3) It is a hazardous waste solely because it possesses the characteristic of ignitability, corrosivity, or both, as determined by the tests for characteristics of hazardous wastes under Subpart C of 35 Ill. Adm. Code 721; or
  - 4) It is a hazardous waste solely because it possesses the reactivity characteristics described by 35 Ill. Adm. Code 721.123 (a)(1), (a)(2), (a)(3), (a)(6), (a)(7), or (a)(8) and will not be burned when other hazardous wastes are present in the combustion zone.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## SUBPART Q: CHEMICAL, PHYSICAL, AND BIOLOGICAL TREATMENT

### Section 725.502 Waste Analysis and Trial Tests

- a) In addition to the waste analysis required by Section 725.113(b) ~~of this Section~~ applies whenever either of the following conditions exist:
- 1) A hazardous waste that is substantially different from waste previously treated in a treatment process or equipment at the facility is to be treated in that process or equipment, or
  - 2) A substantially different process from any previously used at the facility is to be used to chemically treat hazardous waste.
- b) To show that this proposed treatment will meet all applicable requirements of Section 725.501(a) and (b), the owner or operator must, before treating the different waste or using the different process or equipment:
- 1) Conduct waste analyses and trial treatment tests (e.g., bench scale or pilot plant scale tests), or

- 2) Obtain written, documented information on similar treatment of similar waste under similar operating conditions.

~~BOARD NOTE: As required by Section 725.113, the waste analysis plan must include analyses needed to comply with Sections 725.505 and 725.506. As required by Section 725.173, the owner or operator must place the results from each waste analysis and trial test, or the documented information, in the operating record of the facility.~~

BOARD NOTE: As required by Section 725.113, the waste analysis plan must include analyses needed to comply with Sections 725.505 and 725.506. As required by Section 725.173, the owner or operator must place the results from each waste analysis and trial test, or the documented information, in the operating record of the facility.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART AA: AIR EMISSION STANDARDS FOR PROCESS VENTS

##### **Section 725.933 Standards: Closed-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 must comply with the provisions of this Section.
  - 2) Implementation Schedule.
    - A) 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 AA on the effective date that the facility becomes subject to the provisions of this Subpart AA must 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 AA for installation and startup.
    - B) Any unit that begins operation after December 21, 1990, and which is subject to the provisions of this Subpart AA when operation begins, must comply with the rules immediately (i.e., must have control devices installed and operating on startup of the affected unit); the 30-month implementation schedule does not apply.
    - C) The owner or operator of any facility in existence on the effective date of a statutory or regulatory amendment that renders the facility subject to this Subpart AA must comply with all

requirements of this Subpart AA as soon as practicable but no later than 30 months after the effective date of the amendment. When control equipment required by this Subpart AA cannot be installed and begin operation by the effective date of the amendment, the facility owner or operator must prepare an implementation schedule that includes the following information: specific calendar dates for award of contracts or issuance of purchase orders for the control equipment, initiation of on-site installation of the control equipment, completion of the control equipment installation, and performance of any testing to demonstrate that the installed equipment meets the applicable standards of this Subpart AA. The owner or operator must enter the implementation schedule in the operating record or in a permanent, readily available file located at the facility.

- D) An owner or operator of a facility or unit that becomes newly subject to the requirements of this Subpart AA after December 8, 1997, due to an action other than those described in subsection (a)(2)(iii) ~~of this Section~~ must comply with all applicable requirements immediately (i.e., the facility or unit must have control devices installed and operating on the date the facility or unit becomes subject to this Subpart AA; the 30-month implementation schedule does not apply).
- 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 degrees Celsius (° 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 five minutes during any two 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)(e) of this Section~~ (f)(2)(C).
  - 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 (1,000 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 (Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), must be used to determine the compliance of a flare with the visible emission provisions of this Subpart AA. The observation period is two hours and must be used according to Reference 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:

$H_T$  = 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

$\Sigma X_i$  = the sum of the values of X for each component i, from i=1 to n

$C_i$  = the concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 (Measurement of Gaseous Organic Compound Emissions by Gas Chromatography) in appendix A to 40 CFR 60 (Test Methods), and for carbon monoxide, by ASTM D 1946-90 (Standard Practice for Analysis of Reformed Gas by Gas Chromatography), each 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 (Standard Test Method for Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High Precision Method)), incorporated by reference in 35 Ill. Adm. Code 720.111(a), 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 (Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)), 2A (Direct Measurement of Gas Volume through Pipes and Small Ducts), 2C (Determination of Gas Velocity and Volumetric Flow Rate in Small Stacks or Ducts (Standard Pitot Tube)), or 2D (Measurement of Gas Volume Flow Rates in Small Pipes and Ducts) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), 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:

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

$H_T$  = 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:

$$V = 8.706 + 0.7084 H_T \text{ Where:}$$

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

- f) The owner or operator must 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  $\pm 1$  percent 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  $\pm 1$  percent 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  $\pm 1$  percent 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 of the following:
  - 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  $\pm 1$  percent 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 of the following:
  - 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 must 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 must 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 percent 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 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 must 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~~ must be inspected and monitored in accordance with the following requirements:
    - A) An initial leak detection monitoring of the closed-vent system must be conducted by the owner or operator on or before the date that the system becomes subject to this Section. The owner or operator must 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 must 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 must 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 Agency, 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 must repair the defect or leak in accordance with the requirements of subsection (k)(3) ~~of this Section~~.
  - D) The owner or operator must 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 must 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 must perform the inspections at least once every year.
  - C) In the event that a defect or leak is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (k)(3) ~~of this Section~~.
  - D) The owner or operator must maintain a record of the inspection and monitoring in accordance with the requirements specified in Section 725.935.
- 3) The owner or operator must 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 must 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 AA 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 must 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 Subpart X of 35 Ill. Adm. Code 724; or
      - B) The unit is equipped with and operating air emission controls in accordance with the applicable requirements of Subparts AA and CC of this Part or 35 Ill. Adm. Code 724; or
      - C) The unit is equipped with and operating air emission controls in accordance with a federal national emission standard for hazardous air pollutants under 40 CFR 61 (National Emission Standards for Hazardous Air Pollutants) or 63 (National Emission Standards for Hazardous Air Pollutants for Source Categories), each incorporated by reference in 35 Ill. Adm. Code 720.111(b).
    - 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 Subpart O of 35 Ill. Adm. Code 724; or
      - B) The owner or operator has designed and operates the incinerator in accordance with the interim status requirements of Subpart O of this Part.
    - 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 Subpart H of 35 Ill. Adm. Code 726; or

- B) The owner or operator has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of Subpart H of 35 Ill. Adm. Code 726.
- 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 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### **Section 725.934 Test Methods and Procedures**

- a) Each owner or operator subject to the provisions of this Subpart AA must 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 (Determination of Volatile Organic Compound Leaks) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b).
  - 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) Reference Method 2 (Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), for velocity and volumetric flow rate.
    - B) Reference Method 18 (Measurement of Gaseous Organic Compound Emissions by Gas Chromatography) or 25A (Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), for organic content. If Reference Method 25A is used, the organic hazardous air pollutant (HAP) used as the calibration gas must be the single HAP that represents the largest percent by volume of the emissions. The use of Reference Method 25A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.
    - 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:



- i) For a source utilizing Reference Method 18:

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

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 Reference Method 2

$n$  = 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 Reference Method 18

$MW_i$  = 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.

- ii) For a source utilizing Reference Method 25A:

$$E_h = Q \times C \times MW \times 0.0416 \times 10^{-6}$$

Where:

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

$Q$  = The volumetric flow rate of gases entering or exiting control device, dscm/h, as determined by Reference Method 2

$C$  = The organic concentration in ppm, dry basis, of compound  $i$  in the vent gas, as determined by Reference Method 25A

MW = The molecular weight of propane, 44 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<sup>-6</sup> = 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 = total organic emission rate, kg/y

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

H = 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 must 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 must 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 platforms.
  - C) Safe access to sampling platforms.
  - 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 AA, the owner or operator must 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 must 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 9060A (Total Organic Carbon) of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," USEPA publication number EPA-530/SW-846, incorporated by reference under 35 Ill. Adm. Code 720.111(a), or analyzed for its individual constituents.
    - 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 the following:
  - 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 that 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 AA 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 dispute may be resolved using direct measurement, as specified in subsection (d)(1) ~~of this Section~~.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 725.935 Recordkeeping Requirements**

- a) Compliance Required.

- 1) Each owner or operator subject to the provisions of this Subpart AA must 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 AA 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 must record the following information in the facility operating record:
- 1) For facilities that comply with the provisions of Section 725.933(a)(2), an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The schedule must also include a rationale of why the installation cannot be completed at an earlier date. The implementation schedule must be in the facility operating record by the effective date that the facility becomes subject to the provisions of this Subpart AA.
  - 2) Up-to-date documentation of compliance with the process vent standards in Section 725.932, including the following:
    - A) Information and data identifying all affected process vents, annual throughput and operating hours of each affected unit, estimated emission rates for each affected vent and for the overall facility (i.e., the total emissions for all affected vents at the facility), and the approximate location within the facility of each affected unit (e.g., identify the hazardous waste management units on a facility plot plan).
    - B) Information and data supporting determination of vent emissions and emission reductions achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, determinations of vent emissions and emission reductions must be made using operating parameter values (e.g., temperatures, flow rates, or vent stream organic compounds and concentrations) that represent the conditions that result in maximum organic emissions, such as when the waste management unit is operating at the highest load or capacity level reasonably expected to occur. If the owner or operator takes any action (e.g., managing a waste of different composition or increasing operating hours of affected waste management units) that would result in an increase in total organic emissions from affected process vents at the facility, then a new determination is required.

- 3) Where an owner or operator chooses to use test data to determine the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan. The test plan must include the following:
  - A) A description of how it is determined that the planned test is going to be conducted when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. This must include the estimated or design flow rate and organic content of each vent stream and define the acceptable operating ranges of key process and control device parameters during the test program.
  - B) A detailed engineering description of the closed-vent system and control device including the following:
    - i) Manufacturer's name and model number of control device;
    - ii) Type of control device;
    - iii) Dimensions of the control device;
    - iv) Capacity; and
    - v) Construction materials.
  - C) 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 planned analytical procedures for sample analysis.
- 4) Documentation of compliance with Section 725.933 must include the following information:
  - A) A list of all information references and sources used in preparing the documentation;
  - B) Records, including the dates of each compliance test required by Section 725.933(j);
  - C) If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions," USEPA publication number EPA-450/2-81-005, incorporated by reference in 35 Ill. Adm. Code 720.111(a), or other engineering texts, approved by the Agency, that present basic control device design information. Documentation provided by the control device

manufacturer or vendor that describes the control device design in accordance with subsections (b)(4)(C)(i) through (b)(4)(C)(vii) of this Section may be used to comply with this requirement. The design analysis must address the vent stream characteristics and control device operation parameters as specified below.

- i) For a thermal vapor incinerator, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.
- ii) For a catalytic vapor incinerator, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also establish the design minimum and average temperatures across the catalyst bed inlet and outlet.
- iii) For a boiler or process heater, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also establish the design minimum and average flame zone temperatures, combustion zone residence time and description of method and location where the vent stream is introduced into the combustion zone.
- iv) For a flare, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also consider the requirements specified in Section 725.933(d).
- v) For a condenser, the design analysis must consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis must also establish the design outlet organic compound concentration level, design average temperature of the condenser exhaust vent stream and design average temperatures of the coolant fluid at the condenser inlet and outlet.
- vi) For a carbon adsorption system, such as a fixed-bed adsorber that regenerates the carbon bed directly onsite in the control device, the design analysis must consider the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis must also establish the design exhaust vent stream

organic compound concentration level, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total steam flow over the period of each complete carbon bed regeneration cycle, duration of the carbon bed steaming and cooling/drying cycles, design carbon bed temperature after regeneration, design carbon bed regeneration time and design service life of carbon.

- vii) For a carbon adsorption system, such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device, the design analysis must consider the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis must also establish the design outlet organic concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule;
  - D) A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is or would be operating at the highest load or capacity level reasonably expected to occur;
  - E) A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 percent or greater unless the total organic concentration limit of Section 725.932(a) is achieved at an efficiency less than 95 weight percent or the total organic emission limits of Section 725.932(a) for affected process vents at the facility are attained by a control device involving vapor recovery at an efficiency less than 95 weight percent. A statement provided by the control device manufacturer or vendor certifying that the control equipment meets the design specifications may be used to comply with this requirement; and
  - F) If performance tests are used to demonstrate compliance, all test results.
- c) Design documentation and monitoring operating and inspection information for each closed-vent system and control device required to comply with the provisions of this Part must be recorded and kept up-to-date in the facility operating record. The information must include the following:



- 1) Description and date of each modification that is made to the closed-vent system or control device design;
- 2) Identification of operating parameter, description of monitoring device, and diagram of monitoring sensor location or locations used to comply with Section 725.933(f)(1) and (f)(2);
- 3) Monitoring, operating and inspection information required by Section 725.933(f) through (k);
- 4) Date, time, and duration of each period that occurs while the control device is operating when any monitored parameter exceeds the value established in the control device design analysis, as specified below:
  - A) For a thermal vapor incinerator designed to operate with a minimum residence time of 0.50 second at a minimum temperature of 760° C, any period when the combustion temperature is below 760° C.
  - B) For a thermal vapor incinerator designed to operate with an organic emission reduction efficiency of 95 percent or greater, any period when the combustion zone temperature is more than 28° C below the design average combustion zone temperature established as a requirement of subsection (b)(4)(C)(i) ~~of this Section~~.
  - C) For a catalytic vapor incinerator, any period when either of the following occurs:
    - i) Temperature of the vent stream at the catalyst bed inlet is more than 28° C below the average temperature of the inlet vent stream established as a requirement of subsection (b)(4)(C)(ii) ~~of this Section~~; or
    - ii) Temperature difference across the catalyst bed is less than 80 percent of the design average temperature difference established as a requirement of subsection (b)(4)(C)(ii) ~~of this Section~~.
  - D) For a boiler or process heater, any period when either of the following occurs:
    - i) Flame zone temperature is more than 28° C below the design average flame zone temperature established as a requirement of subsection (b)(4)(C)(iii) ~~of this Section~~; or
    - ii) Position changes where the vent stream is introduced to the combustion zone from the location established as a requirement of subsection (b)(4)(C)(iii) ~~of this Section~~.

- E) For a flare, period when the pilot flame is not ignited.
  - F) For a condenser that complies with Section 725.933(f)(2)(F)(i), any period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the condenser are more than 20 percent greater than the design outlet organic compound concentration level established as a requirement of subsection (b)(4)(C)(v) ~~of this Section~~.
  - G) For a condenser that complies with Section 725.933(f)(2)(F)(ii), any period when either of the following occurs:
    - i) Temperature of the exhaust vent stream from the condenser is more than 6° C above the design average exhaust vent stream temperature established as a requirement of subsection (b)(4)(C)(v) ~~of this Section~~; or
    - ii) Temperature of the coolant fluid exiting the condenser is more than 6° C above the design average coolant fluid temperature at the condenser outlet established as a requirement of subsection (b)(4)(C)(v) ~~of this Section~~.
  - H) For a carbon adsorption system, such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device and which complies with Section 725.933(f)(2)(G)(i), any period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the carbon bed are more than 20 percent greater than the design exhaust vent stream organic compound concentration level established as a requirement of subsection (b)(4)(C)(vi) ~~of this Section~~.
  - I) For a carbon adsorption system, such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device and which complies with Section 725.933(f)(2)(G)(ii), any period when the vent stream continues to flow through the control device beyond the predetermined carbon bed regeneration time established as a requirement of subsection (b)(4)(C)(vi) ~~of this Section~~;
- 5) Explanation for each period recorded under subsection (c)(4) ~~of this Section~~ of the cause for control device operating parameter exceeding the design value and the measures implemented to correct the control device operation;
- 6) For carbon adsorption systems operated subject to requirements specified in Section 725.933(g) or (h)(2), any date when existing carbon in the control device is replaced with fresh carbon;

- 7) For carbon adsorption systems operated subject to requirements specified in Section 725.933(h)(1), a log that records:
  - A) Date and time when control device is monitored for carbon breakthrough and the monitoring device reading.
  - B) Date when existing carbon in the control device is replaced with fresh carbon;
- 8) Date of each control device startup and shutdown;
- 9) An owner or operator designating any components of a closed-vent system as unsafe to monitor pursuant to Section 725.933(n) must record in a log that is kept in the facility operating record the identification of closed-vent system components that are designated as unsafe to monitor in accordance with the requirements of Section 725.933(n), an explanation for each closed-vent system component stating why the closed-vent system component is unsafe to monitor, and the plan for monitoring each closed-vent system component; and
- 10) When each leak is detected, as specified in Section 725.933(k), the following information must be recorded:
  - A) The instrument identification number, the closed-vent system component identification number, and the operator name, initials, or identification number;
  - B) The date the leak was detected and the date of first attempt to repair the leak;
  - C) The date of successful repair of the leak;
  - D) Maximum instrument reading measured by Reference Method 21 (Determination of Volatile Organic Compound Leaks) of appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), after it is successfully repaired or determined to be nonrepairable; and
  - E) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
    - i) The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.

- ii) If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion; and
- d) Records of the monitoring, operating and inspection information required by subsections (c)(3) through (c)(10) ~~of this Section~~ must be maintained by the owner or operator for at least three years following the date of each occurrence, measurement, corrective action, or record.
- e) 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.
- f) Up-to-date information and data used to determine whether or not a process vent is subject to the requirements in Section 725.932, including supporting documentation as required by Section 725.934(d)(2), when application of the knowledge of the nature of the hazardous ~~wastestream~~ waste stream or the process by which it was produced is used, must be recorded in a log that is kept in the facility operating record.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

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

##### **Section 725.952 Standards: Pumps in Light Liquid Service**

- a) Monitoring.
  - 1) Each pump in light liquid service must be monitored monthly to detect leaks by the methods specified in Section 725.963(b), except as provided in subsections (d), (e), and (f) ~~of this Section~~.
  - 2) Each pump in light liquid service must be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.
- b) Leaks.
  - 1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
  - 2) If there are indications of liquids dripping from the pump seal, a leak is detected.
- c) Repairs.

- 1) When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 725.959.
  - 2) A first attempt at repair (e.g., tightening the packing gland) must be made no later than 5 calendar days after each leak is detected.
- d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of subsection (a) ~~of this Section~~, provided the following requirements are met:
- 1) Each dual mechanical seal system must be as follows:
    - A) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressures;
    - B) Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of Section 725.960; or
    - C) Equipped with a system that purges the barrier fluid into a hazardous wastestream with no detectable emissions to the atmosphere;
  - 2) The barrier fluid system must not be a hazardous waste with organic concentrations 10 percent or greater by weight;
  - 3) Each barrier fluid system must be equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both;
  - 4) Each pump must be checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals;
  - 5) Alarms.
    - A) Each sensor as described in subsection (d)(3) ~~of this Section~~, must be checked daily or be equipped with an audible alarm that must be checked monthly to ensure that it is functioning properly.
    - B) The owner or operator must determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both; and
  - 6) Leaks.
    - A) If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system, the barrier fluid

system, or both, based on the criterion determined in subsection (d)(5)(B) ~~of this Section~~, a leak is detected.

- B) When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 725.959.
  - C) A first attempt at repair (e.g., relapping the seal) must be made no later than five calendar days after each leak is detected.
- e) Any pump that is designated, as described in Section 725.964(g)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of subsections (a), (c), ~~and (d) of this Section~~, if the pump meets the following requirements:
- 1) Must have no externally actuated shaft penetrating the pump housing;
  - 2) Must operate with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in Section 725.963(c); and
  - 3) Must be tested for compliance with subsection (e)(2) ~~of this Section~~, initially upon designation, annually and at other times as specified by the Agency ~~pursuant to Section 725.950(e)~~.
- f) If any pump is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of Section 725.960, it is exempt from the requirements of subsections (a) through (e) ~~of this Section~~.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## SUBPART BB: AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

### Section 725.964 Recordkeeping Requirements

- a) Lumping Units.
  - 1) Each owner or operator subject to the provisions of this Subpart BB must 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 BB 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 must record the following information in the facility operating record:
- 1) For each piece of equipment to which this Subpart BB applies, the following:
    - 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); and
    - F) Method of compliance with the standard (e.g., “monthly leak detection and repair” or “equipped with dual mechanical seals”);
  - 2) For facilities 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); and
  - 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 Section 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; and

- 3) The identification on a valve may be removed after it has been monitored for two successive months as specified in Section 725.957(c) and no leak has been detected during those two 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; and
  - 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 BB.
  - 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 percent by weight for 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; and

- 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; and
    - 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 725.952(d)(5)(B) and 725.953(e)(2) and an explanation of the criteria; and
    - 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 ~~Section~~ Sections 725.952 through 725.960 and an analysis determining whether these hazardous wastes are heavy liquids; and
    - 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 with equipment that is subject to this Subpart and to federal regulations at 40 CFR 60, 61, or 63 may elect to determine compliance with this Subpart BB by documentation of compliance either pursuant to Section 725.964 or by documentation of compliance with the regulations at 40 CFR 60 (Standards of Performance for New Stationary Sources), 61 (National Emission Standards for Hazardous Air Pollutants), or 63 (National Emission Standards for Hazardous Air Pollutants for Source Categories), pursuant to the relevant provisions of 40 CFR 60, 61, or 63, each incorporated by reference in 35 Ill. Adm. Code 720.111(b). The documentation of compliance under the regulation at 40 CFR 60, 61, or 63 must be kept with or made readily available with the facility operating record.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

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

##### **Section 725.983 Standards: General**

- a) This Section applies to the management of hazardous waste in tanks, surface impoundments, and containers subject to this Subpart CC.
- b) The owner or operator must control air pollutant emissions from each hazardous waste management unit in accordance with the standards specified in Sections 725.985 through 725.988, as applicable to the hazardous waste management unit, except as provided for in subsection (c) ~~of this Section~~.
- c) A tank, surface impoundment, or container is exempted from standards specified in Sections 725.985 through 725.988, provided that all hazardous waste placed in the waste management unit is one of the following:
- 1) A tank, surface impoundment, or container for which all hazardous waste entering the unit has an average VO concentration at the point of waste origination of less than 500 parts per million by weight (ppmw). The average VO concentration must be determined by the procedures specified in Section 725.984(a). The owner or operator must review and update, as necessary, this determination at least once every 12 months following the date of the initial determination for the hazardous waste streams entering the unit;
  - 2) A tank, surface impoundment, or container for which the organic content of all the hazardous waste entering the waste management unit has been reduced by an organic destruction or removal process that achieves any one of the following conditions:
    - A) The process removes or destroys the organics contained in the hazardous waste to such a level that the average VO concentration of the hazardous waste at the point of waste treatment is less than

the exit concentration limit ( $C_i$ ) established for the process. The average VO concentration of the hazardous waste at the point of waste treatment and the exit concentration limit for the process must be determined using the procedures specified in Section 725.984(b);

- B) The process removes or destroys the organics contained in the hazardous waste to such a level that the organic reduction efficiency ( $R$ ) for the process is equal to or greater than 95 percent, and the average VO concentration of the hazardous waste at the point of waste treatment is less than 100 ppmw. The organic reduction efficiency for the process and the average VO concentration of the hazardous waste at the point of waste treatment must be determined using the procedures specified in Section 725.984(b);
- C) The process removes or destroys the organics contained in the hazardous waste to such a level that the actual organic mass removal rate ( $MR$ ) for the process is equal to or greater than the required organic mass removal rate ( $RMR$ ) established for the process. The required organic mass removal rate and the actual organic mass removal rate for the process must be determined using the procedures specified in Section 725.984(b);
- D) The process is a biological process that destroys or degrades the organics contained in the hazardous waste so that either of the following conditions is met:
  - i) The organic reduction efficiency ( $R$ ) for the process is equal to or greater than 95 percent, and the organic biodegradation efficiency ( $R_{bio}$ ) for the process is equal to or greater than 95 percent. The organic reduction efficiency and the organic biodegradation efficiency for the process must be determined using the procedures specified in Section 725.984(b); and
  - ii) The total actual organic mass biodegradation rate ( $MR_{bio}$ ) for all hazardous waste treated by the process is equal to or greater than the required organic mass removal rate ( $RMR$ ). The required organic mass removal rate and the actual organic mass biodegradation rate for the process must be determined using the procedures specified in Section 725.984(b);
- E) The process is one that removes or destroys the organics contained in the hazardous waste and meets all of the following conditions:

- i) From the point of waste origination through the point where the hazardous waste enters the treatment process, the hazardous waste is continuously managed in waste management units that use air emission controls in accordance with the standards specified in Section 725.985 through Section 725.988, as applicable to the waste management unit;
- ii) From the point of waste origination through the point where the hazardous waste enters the treatment process, any transfer of the hazardous waste is accomplished through continuous hard-piping or other closed system transfer that does not allow exposure of the waste to the atmosphere;

BOARD NOTE: The USEPA considers a drain system that meets the requirements of federal subpart RR of 40 CFR 63 (National Emission Standards for Individual Drain Systems) to be a closed system.

- iii) The average VO concentration of the hazardous waste at the point of waste treatment is less than the lowest average VO concentration at the point of waste origination determined for each of the individual hazardous waste streams entering the process or 500 ppmw, whichever value is lower. The average VO concentration of each individual hazardous waste stream at the point of waste origination must be determined using the procedures specified in Section 725.984(a). The average VO concentration of the hazardous waste at the point of waste treatment must be determined using the procedures specified in Section 725.984(b);
- F) A process that removes or destroys the organics contained in the hazardous waste to a level such that the organic reduction efficiency (R) for the process is equal to or greater than 95 percent and the owner or operator certifies that the average VO concentration at the point of waste origination for each of the individual waste streams entering the process is less than 10,000 ppmw. The organic reduction efficiency for the process and the average VO concentration of the hazardous waste at the point of waste origination must be determined using the procedures specified in ~~Section~~ Sections 724.983(b) 725.984(b) and ~~Section~~ 724.983(a) 725.984(a), respectively;
  - G) A hazardous waste incinerator for which either of the following conditions is true:

- i) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart O of 35 Ill. Adm. Code 724; or
  - ii) The owner or operator has designed and operates the incinerator in accordance with the interim status requirements of Subpart O of this Part;
- H) A boiler or industrial furnace for which either of the following conditions is true:
- i) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart H of 35 Ill. Adm. Code 726; or
  - ii) The owner or operator has designed and operates the industrial furnace or incinerator in accordance with the interim status requirements of Subpart H of 35 Ill. Adm. Code 726; and
- I) For the purpose of determining the performance of an organic destruction or removal process in accordance with the conditions in each of subsections (c)(2)(A) through (c)(2)(F) ~~of this Section~~, the owner or operator must account for VO concentrations determined to be below the limit of detection of the analytical method by using the following VO concentration:
- i) If Reference Method 25D (Determination of the Volatile Organic Concentration of Waste Samples) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), is used for the analysis, one-half the blank value determined in the method at Section 4.4 of Reference Method 25D or a value of 25 ppmw, whichever is less; and
  - ii) If any other analytical method is used, one-half the sum of the limits of detection established for each organic constituent in the waste that has a Henry's law constant value at least 0.1 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;
- 3) A tank or surface impoundment used for biological treatment of hazardous waste in accordance with the requirements of subsection (c)(2)(D) ~~of this Section~~;

- 4) A tank, surface impoundment, or container for which all hazardous waste placed in the unit fulfills either of the following two conditions:
  - A) It meets the numerical concentration limits for organic hazardous constituents, applicable to the hazardous waste, as specified in Table T to 35 Ill. Adm. Code 728; or
  - B) The organic hazardous constituents in the waste have been treated by the treatment technology established by USEPA for the waste, as set forth in 35 Ill. Adm. Code 728.142(a), or treated by an equivalent method of treatment approved by the Agency pursuant to 35 Ill. Adm. Code 728.142(b); or
- 5) A tank used for bulk feed of hazardous waste to a waste incinerator, and all of the following conditions are met:
  - A) The tank is located inside an enclosure vented to a control device that is designed and operated in accordance with all applicable requirements specified under federal subpart FF of 40 CFR 61 (National Emission Standards for Benzene Waste Operations), incorporated by reference in 35 Ill. Adm. Code 720.111(b), for a facility at which the total annual benzene quantity from the facility waste is equal to or greater than 10 megagrams (11 tons) per year;
  - B) The enclosure and control device serving the tank were installed and began operation prior to November 25, 1996; and
  - C) The enclosure is 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 appendix B to 40 CFR 52.741 (VOM Measurement Techniques for Capture Efficiency), incorporated by reference in 35 Ill. Adm. Code 720.111(b). 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 or electrical equipment; or to direct air flow into the enclosure. The owner or operator must 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” annually.
- d) The Agency may at any time perform or request that the owner or operator perform a waste determination for a hazardous waste managed in a tank, surface impoundment, or container that is exempted from using air emission controls under the provisions of this Section as follows:
  - 1) The waste determination for average VO concentration of a hazardous waste at the point of waste origination must be performed using direct

measurement in accordance with the applicable requirements of Section 725.984(a). The waste determination for a hazardous waste at the point of waste treatment must be performed in accordance with the applicable requirements of Section 725.984(b);

- 2) In performing a waste determination pursuant to subsection (d)(1) ~~of this Section~~, the sample preparation and analysis must be conducted as follows:
  - A) In accordance with the method used by the owner or operator to perform the waste analysis, except in the case specified in subsection (d)(2)(B) ~~of this Section~~; and
  - B) If the Agency determines that the method used by the owner or operator was not appropriate for the hazardous waste managed in the tank, surface impoundment, or container, then the Agency may choose an appropriate method;
- 3) Where the owner or operator is requested to perform the waste determination, the Agency may elect to have an authorized representative observe the collection of the hazardous waste samples used for the analysis;
- 4) Where the results of the waste determination performed or requested by the Agency do not agree with the results of a waste determination performed by the owner or operator using knowledge of the waste, then the results of the waste determination performed in accordance with the requirements of subsection (d)(1) ~~of this Section~~ must be used to establish compliance with the requirements of this Subpart CC; and
- 5) Where the owner or operator has used an averaging period greater than one hour for determining the average VO concentration of a hazardous waste at the point of waste origination, the Agency may elect to establish compliance with this Subpart CC by performing or requesting that the owner or operator perform a waste determination using direct measurement, based on waste samples collected within a 1-hour period as follows:
  - A) The average VO concentration of the hazardous waste at the point of waste origination must be determined by direct measurement in accordance with the requirements of Section 725.984(a);
  - B) Results of the waste determination performed or requested by the Agency showing that the average VO concentration of the hazardous waste at the point of waste origination is equal to or greater than 500 ppmw must constitute noncompliance with this Subpart CC, except in a case as provided for in subsection ~~(d)(4)(C) of this Section~~ (d)(5)(C); and



- C) Where the average VO concentration of the hazardous waste at the point of waste origination previously has been determined by the owner or operator using an averaging period greater than one hour to be less than 500 ppmw but because of normal operating process variations the VO concentration of the hazardous waste determined by direct measurement for any given 1-hour period may be equal to or greater than 500 ppmw, information that was used by the owner or operator to determine the average VO concentration of the hazardous waste (e.g., test results, measurements, calculations, and other documentation) and recorded in the facility records in accordance with the requirements of Sections 725.984(a) and 725.990 must be considered by the Agency together with the results of the waste determination performed or requested by the Agency in establishing compliance with this Subpart CC.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### **Section 725.984 Waste Determination Procedures**

- a) Waste determination procedure for volatile organic (VO) concentration of a hazardous waste at the point of waste origination.
- 1) An owner or operator must determine the average VO concentration at the point of waste origination for each hazardous waste placed in a waste management unit exempted under the provisions of Section 725.983(c)(1) from using air emission controls in accordance with standards specified in Section 725.985 through Section 725.988, as applicable to the waste management unit.
    - A) An owner or operator must make an initial determination of the average VO concentration of the waste stream before the first time any portion of the material in the hazardous waste stream is placed in a waste management unit exempted under the provisions of Section 725.983(c)(1) from using air emission controls. Thereafter, an owner or operator must make an initial determination of the average VO concentration of the waste stream for each averaging period that a hazardous waste is managed in the unit.
    - B) An owner or operator must perform a new waste determination whenever changes to the source generating the waste stream are reasonably likely to cause the average VO concentration of the hazardous waste to increase to a level that is equal to or greater than the VO concentration limits specified in Section 725.983(c)(1).
  - 2) For a waste determination that is required by subsection (a)(1) ~~of this Section~~, the average VO concentration of a hazardous waste at the point of waste origination must be determined using either direct measurement, as

specified in subsection (a)(3) ~~of this Section~~, or by knowledge of the waste, as specified in subsection (a)(4) ~~of this Section~~.

- 3) Direct measurement to determine average VO concentration of a hazardous waste at the point of waste origination.
  - A) Identification. The owner or operator must identify and record the point of waste origination for the hazardous waste.
  - B) Sampling. Samples of the hazardous waste stream must be collected at the point of waste origination in such a manner that volatilization of organics contained in the waste and in the subsequent sample is minimized and an adequately representative sample is collected and maintained for analysis by the selected method.
    - i) The averaging period to be used for determining the average VO concentration for the hazardous waste stream on a mass-weighted average basis must be designated and recorded. The averaging period can represent any time interval that the owner or operator determines is appropriate for the hazardous waste stream but must not exceed one year.
    - ii) A sufficient number of samples, but no fewer than four samples, must be collected for a hazardous waste determination. All of the samples for a given waste determination must be collected within a one-hour period. The average of the four or more sample results constitutes a waste determination for the waste stream. One or more waste determinations may be required to represent the complete range of waste compositions and quantities that occur during the entire averaging period due to normal variations in the operating conditions for the source or process generating the hazardous waste stream. Examples of such normal variations are seasonal variations in waste quantity or fluctuations in ambient temperature.
    - iii) All samples must be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan must describe the procedure by which representative samples of the hazardous waste stream are collected so that a minimum loss of organics occurs throughout the sample collection and handling process, and by which sample integrity is maintained. A copy of the written sampling plan must be maintained on-site in the facility operating

records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures in Reference Method 25D (Determination of the Volatile Organic Concentration of Waste Samples) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b).

iv) Sufficient information, as specified in the “site sampling plan” required under subsection (a)(3)(B)(iii) ~~of this Section~~, must be prepared and recorded to document the waste quantity represented by the samples and, as applicable, the operating conditions for the source or process generating the hazardous waste represented by the samples.

C) Analysis. Each collected sample must be prepared and analyzed in accordance with Reference Method 25D in appendix A to 40 CFR 60 for the total concentration of volatile organic constituents or using one or more methods when the individual organic compound concentrations are identified and summed and the summed waste concentration accounts for and reflects all organic compounds in the waste with Henry’s law constant values at least 0.1 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). At the owner’s or operator’s discretion, the owner or operator may adjust test data measured by any appropriate method to discount any contribution to the total volatile organic concentration that is a result of including a compound with a Henry’s law constant value of less than 0.1 Y/X at 25° C (77° F). To adjust these data, the measured concentration of each individual chemical constituent contained in the waste is multiplied by the constituent-specific adjustment factor ( $f_{m25D}$ ). If the owner or operator elects to adjust test data, the adjustment must be made to all individual chemical constituents with a Henry’s law constant value greater than or equal to 0.1 Y/X at 25° C contained in the waste. Constituent-specific adjustment factors ( $f_{m25D}$ ) can be obtained ~~by contacting the USEPA, Waste and Chemical Processes Group, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711 in writing from the Agency.~~ Other test methods may be used if they meet the requirements in subsection (a)(3)(C)(i) or (a)(3)(C)(ii) ~~of this Section~~ and provided the requirement is met to reflect all organic compounds in the waste with Henry’s law constant values greater than or equal to 0.1 Y/X (which can also be expressed as  $1.8 \times 10^{-6}$  atmospheres/gram-mole/m<sub>3</sub>) at 25° C.

- i) Any USEPA standard method that has been validated in accordance with appendix D to 40 CFR 63 (Alternative Validation Procedure for EPA Waste and Wastewater Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b); or
- ii) Any other analysis method that has been validated in accordance with the procedures specified in Section 5.1 or 5.3, and the corresponding calculations in Section 6.1 or 6.3, of Method 301 (Field Validation of Pollutant Measurement Methods from Various Waste Media) in appendix A to 40 CFR 63 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b). The data are acceptable if they meet the criteria specified in Section 6.1.5 or 6.3.3 of Method 301. If correction is required under Section 6.3.3 of Method 301, the data are acceptable if the correction factor is within the range 0.7 to 1.30. Other sections of Method 301 are not required.

D) Calculations.

- i) The average VO concentration ( $\bar{C}$ ) on a mass-weighted basis must be calculated by using the results for all waste determinations conducted in accordance with subsections (a)(3)(B) and (a)(3)(C) of this Section and the following equation:

$$\bar{C} = \frac{1}{Q_T} \times \sum_{i=1}^n (Q_i \times C_i)$$

Where:

$\bar{C}$  = Average VO concentration of the hazardous waste at the point of waste origination on a mass-weighted basis, in ppmw

i = Individual waste determination "i" of the hazardous waste

n = Total number of waste determinations of the hazardous waste conducted for the averaging period (not to exceed one year)

$Q_i$  = Mass quantity of the hazardous waste stream represented by  $C_i$ , in kg/hr

$Q_T$  = Total mass quantity of the hazardous waste during the averaging period, in kg/hr

$C_i$  = Measured VO concentration of waste determination "i," as determined in accordance with subsection (a)(3)(C) ~~of this Section~~ (i.e., the average of the four or more samples specified in subsection (a)(3)(B)(ii) ~~of this Section~~), in ppmw.

- ii) For the purpose of determining  $C_i$ , for individual waste samples analyzed in accordance with subsection (a)(3)(C) ~~of this Section~~, the owner or operator must account for VO concentrations determined to be below the limit of detection of the analytical method by using the VO concentration determined according to subsection (a)(3)(G) ~~of this Section~~.
- E) Provided that the test method is appropriate for the waste as required under subsection (a)(3)(C) ~~of this Section~~, the Agency must determine compliance based on the test method used by the owner or operator as recorded pursuant to Section 725.990(f)(1).
- F) The quality assurance program elements required under subsections (a)(3)(C)(vi) and (a)(3)(C)(vii) ~~of this Section~~ are as follows:
- i) Documentation of site-specific procedures to minimize the loss of compounds due to volatilization, biodegradation, reaction, or sorption during the sample collection, storage, preparation, introduction, and analysis steps.
  - ii) Measurement of the overall accuracy and precision of the specific procedures.

BOARD NOTE: Subsections (a)(3)(F)(i) and (a)(3)(F)(ii) are derived from 40 CFR 265.984(a)(3)(iii)(F)(1), (a)(3)(iii)(F)(2), (a)(3)(iii)(G)(1), and (a)(3)(iii)(G)(2), which the Board has codified here to comport with Illinois Administrative Code format requirements.

- G) VO concentrations below the limit of detection must be considered to be as follows:
- i) If Reference Method 25D is used for the analysis, the VO concentration must be considered to be one-half the blank value determined in the Method at Section 4.4 of Reference Method 25D.

- ii) If any other analytical method is used, the VO concentration must be considered to be one-half the sum of the limits of detection established for each organic constituent in the waste that has a Henry's law constant value at least 0.1 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.

BOARD NOTE: Subsections (a)(3)(G)(i) and (a)(3)(G)(ii) are derived from 40 CFR 265.984(a)(3)(iv)(A)(1) and (a)(3)(iv)(A)(2), which the Board has codified here to comport with Illinois Administrative Code format requirements.

- 4) Use of owner or operator knowledge to determine average VO concentration of a hazardous waste at the point of waste origination.
  - A) Documentation must be prepared that presents the information used as the basis for the owner's or operator's knowledge of the hazardous waste stream's average VO concentration. Examples of information that may be used as the basis for knowledge include the following: material balances for the source or process generating the hazardous waste stream; constituent-specific chemical test data for the hazardous waste stream from previous testing that are still applicable to the current waste stream; previous test data for other locations managing the same type of waste stream; or other knowledge based on information included in manifests, shipping papers, or waste certification notices.
  - B) If test data are used as the basis for knowledge, then the owner or operator must document the test method, sampling protocol, and the means by which sampling variability and analytical variability are accounted for in the determination of the average VO concentration. For example, an owner or operator may use organic concentration test data for the hazardous waste stream that are validated in accordance with Method 301 as the basis for knowledge of the waste.
  - C) An owner or operator using chemical constituent-specific concentration test data as the basis for knowledge of the hazardous waste may adjust the test data to the corresponding average VO concentration value that would have been obtained had the waste samples been analyzed using Reference Method 25D. To adjust these data, the measured concentration for each individual chemical constituent contained in the waste is multiplied by the appropriate constituent-specific adjustment factor ( $f_{m25D}$ ).

- D) In the event that the Agency and the owner or operator disagree on a determination of the average VO concentration for a hazardous waste stream using knowledge, then the results from a determination of average VO concentration using direct measurement, as specified in subsection (a)(3) ~~of this Section~~, must be used to establish compliance with the applicable requirements of this Subpart CC. The Agency may perform or request that the owner or operator perform this determination using direct measurement. The owner or operator may choose one or more appropriate methods to analyze each collected sample in accordance with the requirements of subsection (a)(3)(C) ~~of this Section~~.
- b) Waste determination procedures for treated hazardous waste.
- 1) An owner or operator must perform the applicable waste determination for each treated hazardous waste placed in a waste management unit exempted under the provisions of Section 725.983(c)(2)(A) through (c)(2)(F) from using air emission controls in accordance with the standards specified in Sections 725.985 through 725.988, as applicable to the waste management unit.
    - A) An owner or operator must make an initial determination of the average VO concentration of the waste stream before the first time any portion of the material in the treated waste stream is placed in the waste management unit exempt under Section 725.983(c)(2), (c)(3), or (c)(4) from using air emission controls. Thereafter, an owner or operator must update the information used for the waste determination at least once every 12 months following the date of the initial waste determination.
    - B) An owner or operator must perform a new waste determination whenever changes to the process generating or treating the waste stream are reasonably likely to cause the average VO concentration of the hazardous waste to increase to such a level that the applicable treatment conditions specified in Section 725.983 (c)(2), (c)(3), or (c)(4) are not achieved.
  - 2) The owner or operator must designate and record the specific provision in Section 725.983(c)(2) under which the waste determination is being performed. The waste determination for the treated hazardous waste must be performed using the applicable procedures specified in subsections (b)(3) through (b)(9) ~~of this Section~~.
  - 3) Procedure to determine the average VO concentration of a hazardous waste at the point of waste treatment.

- A) Identification. The owner or operator must identify and record the point of waste treatment for the hazardous waste.
- B) Sampling. Samples of the hazardous waste stream must be collected at the point of waste treatment in such a manner that volatilization of organics contained in the waste and in the subsequent sample is minimized and an adequately representative sample is collected and maintained for analysis by the selected method.
- i) The averaging period to be used for determining the average VO concentration for the hazardous waste stream on a mass-weighted average basis must be designated and recorded. The averaging period can represent any time interval that the owner or operator determines is appropriate for the hazardous waste stream but must not exceed one year.
  - ii) A sufficient number of samples, but no fewer than four samples, must be collected and analyzed for a hazardous waste determination. All of the samples for a given waste determination must be collected within a one-hour period. The average of the four or more sample results constitutes a waste determination for the hazardous waste stream. One or more waste determinations may be required to represent the complete range of waste compositions and quantities that occur during the entire averaging period due to normal variations in the operating conditions for the process generating or treating the hazardous waste stream. Examples of such normal variations are seasonal variations in waste quantity or fluctuations in ambient temperature.
  - iii) All samples must be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan must describe the procedure by which representative samples of the hazardous waste stream are collected so that a minimum loss of organics occurs throughout the sample collection and handling process, and by which sample integrity is maintained. A copy of the written sampling plan must be maintained on-site in the facility operating records. An example of an acceptable sample collection and handling procedures for a total organic constituent concentration may be found in Reference Method 25D.
  - iv) Sufficient information, as specified in the “site sampling plan” required under subsection (a)(3)(B)(iii) ~~of this Section~~,



must be prepared and recorded to document the waste quantity represented by the samples and, as applicable, the operating conditions for the process treating the hazardous waste represented by the samples.

- C) Analysis. Each collected sample must be prepared and analyzed in accordance with Reference Method 25D for the total concentration of volatile organic constituents or using one or more methods when the individual organic compound concentrations are identified and summed, and the summed waste concentration accounts for and reflects all organic compounds in the waste with Henry's law constant values at least 0.1 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~~ 25° C (75° F). When the owner or operator is making a waste determination for a treated hazardous waste that is to be compared to an average VO concentration at the point of waste origination or the point of waste entry to the treatment system, to determine if the conditions of 35 Ill. Adm. Code 724.982(c)(2)(A) through (c)(2)(F) or Section 725.983(c)(2)(A) through (c)(2)(F) are met, then the waste samples must be prepared and analyzed using the same method or methods as were used in making the initial waste determinations at the point of waste origination or at the point of entry to the treatment system. At the owner's or operator's discretion, the owner or operator may adjust test data obtained by any appropriate method to discount any contribution to the total volatile organic concentration that is a result of including a compound with a Henry's law constant value less than 0.1 Y/X at 25° C. To adjust these data, the measured concentration of each individual chemical constituent contained in the waste is multiplied by the constituent-specific adjustment factor ( $f_{m25D}$ ). If the owner or operator elects to adjust test data, the adjustment must be made to all individual chemical constituents with a Henry's law constant value greater than or equal to 0.1 Y/X at 25° C contained in the waste. Constituent-specific adjustment factors ( $f_{m25D}$ ) can be obtained by ~~contacting the USEPA, Waste and Chemical Processes Group, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711~~ in writing from the Agency. Other test methods may be used if they meet the requirements in subsection (a)(3)(C)(i) or (a)(3)(C)(ii) ~~of this Section~~ and provided the requirement is met to reflect all organic compounds in the waste with Henry's law constant values greater than or equal to 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.

- i) Any USEPA standard method that has been validated in accordance with appendix D to 40 CFR 63, incorporated by reference in 35 Ill. Adm. Code 720.111(b); or
- ii) Any other analysis method that has been validated in accordance with the procedures specified in Section 5.1 or 5.3, and the corresponding calculations in Section 6.1 or 6.3, of Method 301 in appendix A to 40 CFR 63, incorporated by reference in 35 Ill. Adm. Code 720.111(b). The data are acceptable if they meet the criteria specified in Section 6.1.5 or 6.3.3 of Method 301. If correction is required under Section 6.3.3 of Method 301, the data are acceptable if the correction factor is within the range 0.7 to 1.30. Other sections of Method 301 are not required.
- D) Calculations. The average VO concentration ( $\bar{C}$ ) on a mass-weighted basis must be calculated by using the results for all samples analyzed in accordance with subsection (b)(3)(C) ~~of this Section~~ and the following equation:

$$\bar{C} = \frac{1}{Q_T} \times \sum_{i=1}^n (Q_i \times C_i)$$

Where:

$\bar{C}$  = Average VO concentration of the hazardous waste at the point of waste treatment on a mass-weighted basis, in ppmw

$i$  = Individual determination "i" of the hazardous waste

$n$  = Total number of waste determinations of the hazardous waste collected for the averaging period (not to exceed one year)

$Q_i$  = Mass quantity of the hazardous waste stream represented by  $C_i$ , in kg/hr

$Q_T$  = Total mass quantity of hazardous waste during the averaging period, in kg/hr

$C_i$  = Measured VO concentration of waste determinations "i," as determined in accordance with the requirements of subsection (b)(3)(C) ~~of this Section~~ (i.e., the average of the four or more

samples specified in subsection (b)(3)(B)(ii) ~~of this Section~~), in ppmw.

- E) Provided that the test method is appropriate for the waste as required under subsection (b)(3)(C) ~~of this Section~~, compliance must be determined based on the test method used by the owner or operator as recorded pursuant to Section 725.990(f)(1).
- 4) Procedure to determine the exit concentration limit ( $C_t$ ) for a treated hazardous waste.
- A) The point of waste origination for each hazardous waste treated by the process at the same time must be identified.
- B) If a single hazardous waste stream is identified in subsection (b)(4)(A) ~~of this Section~~, then the exit concentration limit ( $C_t$ ) must be 500 ppmw.
- C) If more than one hazardous waste stream is identified in subsection (b)(4)(A) ~~of this Section~~, then the average VO concentration of each hazardous waste stream at the point of waste origination must be determined in accordance with the requirements of subsection (a) ~~of this Section~~. The exit concentration limit ( $C_t$ ) must be calculated by using the results determined for each individual hazardous waste stream and the following equation:

$$C_t = \frac{\sum_{x=1}^m (Q_x \bar{C}_x) + \sum_{y=1}^n (Q_y \times 500 \text{ppmw})}{\sum_{x=1}^m Q_x + \sum_{y=1}^n Q_y}$$

Where:

$C_t$  = Exit concentration limit for treated hazardous waste, in ppmw

$x$  = Individual hazardous waste stream “x” that has an average VO concentration less than 500 ppmw at the point of waste origination, as determined in accordance with the requirements of subsection (a) ~~of this Section~~

$y$  = Individual hazardous waste stream “y” that has an average VO concentration equal to or greater than

500 ppmw at the point of waste origination, as determined in accordance with the requirements of subsection (a) ~~of this Section~~

$m =$  Total number of “x” hazardous waste streams treated by process

$n =$  Total number of “y” hazardous waste streams treated by process

$Q_x =$  Annual mass quantity of hazardous waste stream “x,” in kg/yr

$Q_y =$  Annual mass quantity of hazardous waste stream “y,” in kg/yr

$\bar{C}_x =$  Average VO concentration of hazardous waste stream “x” at the point of waste origination, as determined in accordance with the requirements of subsection (a) ~~of this Section~~, in ppmw.

- 5) Procedure to determine the organic reduction efficiency (R) for a treated hazardous waste.
- A) The organic reduction efficiency (R) for a treatment process must be determined based on results for a minimum of three consecutive runs.
  - B) All hazardous waste streams entering the process and all hazardous waste streams exiting the treatment process must be identified. The owner or operator must prepare a sampling plan for measuring these streams that accurately reflects the retention time of the hazardous waste in the process.
  - C) For each run, information must be determined for each hazardous waste stream identified in subsection (b)(5)(B) ~~of this Section~~, using the following procedures:
    - i) The mass quantity of each hazardous waste stream entering the process ( $Q_b$ ) and the mass quantity of each hazardous waste stream exiting the process ( $Q_a$ ) must be determined; and
    - ii) The average VO concentration at the point of waste origination of each hazardous waste stream entering the process ( $C_b$ ) during the run must be determined in accordance with the requirements of subsection (a)(3) ~~of this Section~~. The average VO concentration at the point of

waste treatment of each hazardous waste stream exiting the process ( $C_a$ ) during the run must be determined in accordance with the requirements of subsection (b)(3) ~~of this Section.~~

- D) The waste volatile organic mass flow entering the process ( $E_b$ ) and the waste volatile organic mass flow exiting the process ( $E_a$ ) must be calculated by using the results determined in accordance with subsection (b)(5)(C) ~~of this Section~~ and the following equations:

$$E_b = \frac{1}{10^6} \sum_{j=1}^m (Q_{bj} \times \overline{C_{bj}})$$

$$E_a = \frac{1}{10^6} \sum_{j=1}^m (Q_{aj} \times \overline{C_{aj}})$$

Where:

$E_a$  = Waste volatile organic mass flow exiting the process, in kg/hr

$E_b$  = Waste volatile organic mass flow entering the process, in kg/hr

$m$  = Total number of runs (at least 3);

$j$  = Individual run "j"

$Q_{bj}$  = Mass quantity of hazardous waste entering the process during run "j," in kg/hr

$Q_{aj}$  = Average mass quantity of waste exiting the process during run "j," in kg/hr

$\overline{C_{aj}}$  = Average VO concentration of hazardous waste exiting the process during run "j," as determined in accordance with the requirements of subsection (b)(3) ~~of this Section~~, in ppmw

$\overline{C_{bj}}$  = Average VO concentration of hazardous waste entering the process during run "j," as determined in accordance with the requirements of subsection ~~725.984(a)(3) of this Section~~, in ppmw.

- E) The organic reduction efficiency of the process must be calculated by using the results determined in accordance with subsection (b)(5)(D) ~~of this Section~~ and the following equation:

$$R = \frac{E_b - E_a}{E_b} \times 100\%$$

Where:

R = Organic reduction efficiency, in percent

E<sub>b</sub> = Waste volatile organic mass flow entering the process, as determined in accordance with the requirements of subsection (b)(5)(D) ~~of this Section~~, in kg/hr

E<sub>a</sub> = Waste volatile organic mass flow exiting the process, as determined in accordance with the requirements of subsection (b)(5)(D) ~~of this Section~~, in kg/hr.

- 6) Procedure to determine the organic biodegradation efficiency (R<sub>bio</sub>) for a treated hazardous waste.
- A) The fraction of organics biodegraded (F<sub>bio</sub>) must be determined using the procedure specified in appendix C to 40 CFR 63 (Determination of the Fraction Biodegraded (F<sub>bio</sub>) in a Biological Treatment Unit), incorporated by reference in 35 Ill. Adm. Code 720.111(b).
- B) The organic biodegradation efficiency (R<sub>bio</sub>) must be calculated by using the following equation:

$$R_{bio} = F_{bio} \times 100\%$$

Where:

R<sub>bio</sub> = Organic biodegradation efficiency, in percent

F<sub>bio</sub> = Fraction of organic biodegraded, as determined in accordance with the requirements of subsection (b)(6)(A) ~~of this Section~~.

- 7) Procedure to determine the required organic mass removal rate (RMR) for a treated hazardous waste.
- A) All of the hazardous waste streams entering the treatment process must be identified.

- B) The average VO concentration of the hazardous waste stream at the point of waste origination must be determined in accordance with the requirements of subsection (a) ~~of this Section~~.
- C) For each individual hazardous waste stream that has an average volatile organic concentration equal to or greater than 500 ppmw at the point of waste origination, the average volumetric flow rate of hazardous waste and the density of the hazardous waste stream at the point of waste origination must be determined.
- D) The required organic mass removal rate (RMR) for the hazardous waste must be calculated by using the average VO concentration, average volumetric flow rate, and density determined for each individual hazardous waste stream, and the following equation:

$$\text{RMR} = \sum_{y=1}^n \left[ V_y \times k_y \times \frac{(\bar{C}_y - 500\text{ppmw})}{10^6} \right]$$

Where:

RMR = Required organic mass removal rate, in kg/hr

y = Individual hazardous waste stream “y” that has an average volatile organic (VO) concentration equal to or greater than 500 ppmw at the point of waste origination, as determined in accordance with the requirements of subsection (a) ~~of this Section~~

n = Total number of “y” hazardous waste streams treated by process

$V_y$  = Average volumetric flow rate of hazardous waste stream “y” at the point of waste origination, in  $\text{m}^3/\text{hr}$

$k_y$  = Density of hazardous waste stream “y,” in  $\text{kg}/\text{m}^3$

$\bar{C}_y$  = Average VO concentration of hazardous waste stream “y” at the point of waste origination, as determined in accordance with the requirements of subsection (a) ~~of this Section~~, in ppmw.

- 8) Procedure to determine the actual organic mass removal rate (MR) for a treated hazardous waste.

- A) The actual organic mass removal rate (MR) must be determined based on results for a minimum of three consecutive runs. The sampling time for each run must be one hour.
- B) The waste volatile organic mass flow entering the process ( $E_b$ ) and the waste volatile organic mass flow exiting the process ( $E_a$ ) must be determined in accordance with the requirements of subsection (b)(5)(D) ~~of this Section~~.
- C) The actual organic mass removal rate (MR) must be calculated by using the mass flow rate determined in accordance with the requirements of subsection (b)(8)(B) ~~of this Section~~ and the following equation:

$$MR = E_b - E_a$$

Where:

MR = Actual organic mass removal rate, in kg/hr

$E_b$  = Waste volatile organic mass flow entering the process, as determined in accordance with the requirements of subsection (b)(5)(D) ~~of this Section~~, in kg/hr

$E_a$  = Waste volatile organic mass flow exiting the process, as determined in accordance with the requirements of subsection (b)(5)(D) ~~of this Section~~, in kg/hr.

- 9) Procedure to determine the actual organic mass biodegradation rate ( $MR_{bio}$ ) for a treated hazardous waste.
  - A) The actual organic mass biodegradation rate ( $MR_{bio}$ ) must be determined based on results for a minimum of three consecutive runs. The sampling time for each run must be one hour.
  - B) The waste organic mass flow entering the process ( $E_b$ ) must be determined in accordance with the requirements of subsection (b)(5)(D) ~~of this Section~~.
  - C) The fraction of organic biodegraded ( $F_{bio}$ ) must be determined using the procedure specified in appendix C to 40 CFR 63 (Determination of the Fraction Biodegraded ( $F_{bio}$ ) in a Biological Treatment Unit), incorporated by reference in 35 Ill. Adm. Code 720.111(b).



- D) The actual organic mass biodegradation rate ( $MR_{bio}$ ) must be calculated by using the mass flow rates and fraction of organic biodegraded, as determined in accordance with the requirements of subsections (b)(9)(B) and (b)(9)(C) ~~of this Section~~, respectively, and the following equation:

$$MR_{bio} = E_b \times F_{bio}$$

Where:

$MR_{bio}$  = Actual organic mass biodegradation rate, in kg/hr

$E_b$  = Waste organic mass flow entering the process, as determined in accordance with the requirements of subsection (b)(5)(D) ~~of this Section~~, in kg/hr

$F_{bio}$  = Fraction of organic biodegraded, as determined in accordance with the requirements of subsection (b)(9)(C) ~~of this Section~~.

- c) Procedure to determine the maximum organic vapor pressure of a hazardous waste in a tank.
- 1) An owner or operator must determine the maximum organic vapor pressure for each hazardous waste placed in a tank using Tank Level 1 controls in accordance with standards specified in Section 725.985(c).
  - 2) An owner or operator must use either direct measurement, as specified in subsection (c)(3) ~~of this Section~~, or knowledge of the waste, as specified by subsection (c)(4) ~~of this Section~~, to determine the maximum organic vapor pressure that is representative of the hazardous waste composition stored or treated in the tank.
  - 3) Direct measurement to determine the maximum organic vapor pressure of a hazardous waste.
    - A) Sampling. A sufficient number of samples must be collected to be representative of the waste contained in the tank. All samples must be conducted and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan must describe the procedure by which representative samples of the hazardous waste are collected so that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan must be maintained on-site in the facility operating records. An example of acceptable sample collection and handling procedures may be found in Reference Method 25D.

- B) Analysis. Any appropriate one of the following methods may be used to analyze the samples and compute the maximum organic vapor pressure of the hazardous waste:
- i) Reference Method 25E (Determination of Vapor Phase Organic Concentration in Waste Samples) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b);
  - ii) Methods described in API publication 2517 (Evaporative Loss from External Floating-Roof Tanks), incorporated by reference in 35 Ill. Adm. Code 720.111(a);
  - iii) Methods obtained from standard reference texts;
  - iv) ASTM Method D 2879-92 (Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope), incorporated by reference in 35 Ill. Adm. Code 720.111(a);  
or
  - v) Any other method approved by the Agency.
- 4) Use of knowledge to determine the maximum organic vapor pressure of the hazardous waste. Documentation must be prepared and recorded that presents the information used as the basis for the owner's or operator's knowledge that the maximum organic vapor pressure of the hazardous waste is less than the maximum vapor pressure limit listed in Section 725.985(b)(1)(A) for the applicable tank design capacity category. An example of information that may be used is documentation that the hazardous waste is generated by a process for which at other locations it previously has been determined by direct measurement that the waste maximum organic vapor pressure is less than the maximum vapor pressure limit for the appropriate tank design capacity category.
- d) The procedure for determining no detectable organic emissions for the purpose of complying with this Subpart CC is as follows:
- 1) The test must be conducted in accordance with the procedures specified in Reference Method 21 (Determination of Volatile Organic Compound Leaks) of appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b). Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the cover and associated closure devices must be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to, any of the following: the interface of the cover and its foundation mounting, the periphery of any opening on the cover and its associated

closure device, and the sealing seat interface on a spring-loaded pressure relief valve.

- 2) The test must be performed when the unit contains a hazardous waste having an organic concentration representative of the range of concentrations for the hazardous waste expected to be managed in the unit. During the test, the cover and closure devices must be secured in the closed position.
- 3) The detection instrument must meet the performance criteria of Reference Method 21, except the instrument response factor criteria in Section 3.1.2(a) of Reference Method 21 must be for the average composition of the organic constituents in the hazardous waste placed in the waste management unit, not for each individual organic constituent.
- 4) The detection instrument must be calibrated before use on each day of its use by the procedures specified in Reference Method 21.
- 5) Calibration gases must be as follows:
  - A) Zero air (less than 10 ppmv hydrocarbon in air), and
  - B) A mixture of methane or n-hexane in air at a concentration of approximately, but less than, 10,000 ppmv methane or n-hexane.
- 6) The background level must be determined according to the procedures in Reference Method 21.
- 7) Each potential leak interface must be checked by traversing the instrument probe around the potential leak interface as close to the interface as possible, as described in Reference Method 21. In the case when the configuration of the cover or closure device prevents a complete traverse of the interface, all accessible portions of the interface must be sampled. In the case when the configuration of the closure device prevents any sampling at the interface and the device is equipped with an enclosed extension or horn (e.g., some pressure relief devices), the instrument probe inlet must be placed at approximately the center of the exhaust area to the atmosphere.
- 8) The arithmetic difference between the maximum organic concentration indicated by the instrument and the background level must be compared with the value of 500 ppmv except when monitoring a seal around a rotating shaft that passes through a cover opening, in which case the comparison must be as specified in subsection (d)(9) ~~of this Section~~. If the difference is less than 500 ppmv, then the potential leak interface is determined to operate with no detectable organic emissions.

- 9) For the seals around a rotating shaft that passes through a cover opening, the arithmetic difference between the maximum organic concentration indicated by the instrument and the background level must be compared with the value of 10,000 ppmw. If the difference is less than 10,000 ppmw, then the potential leak interface is determined to operate with no detectable organic emissions.

(Source: Amended at 40 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 must 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 must 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 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 must 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) An owner or operator 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 must 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 must 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 such a manner that there are no visible cracks, holes, gaps, or other open spaces between roof section joints or between the interface of the roof edge and the tank wall.

- C) Either of the following must be true of each opening in the fixed roof and of any manifold system associated with the fixed roof must be either:
- i) The opening or manifold system is equipped with a closure device designed to operate so 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) The opening or manifold system is 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, except as provided for in subsection (c)(2)(E).
- 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.
- E) The control device operated pursuant to subsection (c)(2)(C) ~~of this Section~~ needs not remove or destroy organics in the vent stream under the following conditions:
- i) During periods when it is necessary to provide access to the tank for performing the activities of subsection (c)(2)(E)(ii) ~~of this Section~~, venting of the vapor headspace underneath the fixed roof to the control device is not required, opening of closure devices is allowed, and removal of the fixed roof is allowed. Following completion of the activity, the owner or operator must promptly secure the closure device in the closed position or reinstall the cover, as applicable, and resume operation of the control device; and
  - ii) During periods of routine inspection, maintenance, or other activities needed for normal operations, and for the removal

of accumulated sludge or other residues from the bottom of the tank.

BOARD NOTE: Subsections (c)(2)(E)(i) and (c)(2)(E)(ii) are derived from 40 CFR 265.985(c)(2)(iii)(B)(1) and (c)(2)(iii)(B)(2), which the Board has codified here to comport with Illinois Administrative Code format requirements.

- 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 must 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 that 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 so 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 must 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 must 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 must 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 must repair the defect in accordance with the requirements of subsection (k) ~~of this Section~~.
  - D) The owner or operator must maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).
- d) An owner or operator 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 must 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 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 percent 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; and
      - 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 must 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; and
  - 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 must 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 percent open area;
  - B) The owner or operator must 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 must 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 must 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~~; and
    - 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 must 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 must repair the defect in accordance with the requirements of subsection (k) ~~of this Section~~; and
  - F) The owner or operator must maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).
- 4) Safety devices, as defined in Section 725.981, may be installed and operated as necessary on any tank complying with the requirements of this subsection (e).
- 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 must 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 (24 inches) 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); and
  - 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 percent 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 that closes off the liquid surface from the atmosphere; and
  - ix) Each gauge hatch and each sample well must be equipped with a gasketed cover.
- 2) The owner or operator must 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; and
  - 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 must inspect the external floating roof in accordance with the procedures specified as follows:
- A) The owner or operator must measure the external floating roof seal gaps in accordance with the following requirements:
    - i) The owner or operator must 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 must 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 must 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)(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 must repair the defect in accordance with the requirements of subsection (k) ~~of this Section~~; and

- vi) The owner or operator must maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b);
- B) The owner or operator must 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 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 must 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 must 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 must repair the defect in accordance with the requirements of subsection (k) ~~of this Section~~; and
  - iv) The owner or operator must 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 must 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 must 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~~; and
  - 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 must 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 (1/4-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; and
  - 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 diameter 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~~; and

BOARD NOTE: Subsections (f)(3)(D)(i) through (f)(3)(D)(iv) are derived from 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.

- 4) Safety devices, as defined in Section 725.981, may be installed and operated as necessary on any tank complying with the requirements of this subsection (f).
- g) The owner or operator that controls air pollutant emissions from a tank by venting the tank to a control device must 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 so 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; and

- 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 must promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank; and
    - ii) To remove accumulated sludge or other residues from the bottom of a tank; and
  - 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 must 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 must 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 must 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 must repair the defect in accordance with the requirements of subsection (k) ~~of this Section~~; and
  - E) The owner or operator must 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 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 725.984(d); and
  - 3) Whenever a hazardous waste is in the tank, the tank must be operated as a closed-vent system that does not vent to the atmosphere, except under either of the following two conditions:
    - A) The tank does not need to be operated as a closed-vent system at those times when the opening of a safety device, as defined in Section 725.981, is required to avoid an unsafe condition; and
    - B) The tank does not need to be operated as a closed-vent system at those times when the purging of inerts from the tank is required and the purge stream is routed to a closed-vent system and control device designed and operated in accordance with the requirements of Section ~~724.987~~ 725.988.
- 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 appendix B to 40 CFR 52.741 (VOM Measurement Techniques for Capture Efficiency), incorporated by reference in 35 Ill. Adm. Code 720.111(b). 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 must 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~~; and
  - 4) The owner or operator must inspect and monitor the closed-vent system and control device, as specified in Section 725.988.
- j) The owner or operator must 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 subpart RR of 40 CFR 63 (National Emission Standards for Individual Drain Systems), incorporated by reference in 35 Ill. Adm. Code 720.111(b); and
  - 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); and
  - C) The hazardous waste meets the requirements of Section 725.983(c)(4).
- k) The owner or operator must 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 must 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~~; and
  - 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 must 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 CC, 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; and
    - 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 CC, as frequently as practicable during those times when a worker can safely access the cover; and

- 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 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 725.987 Standards: Containers**

- a) The provisions of this Section apply to the control of air pollutant emissions from containers for which Section 725.983(b) references the use of this Section for such air emission control.
- b) General requirements.
- 1) The owner or operator must control air pollutant emissions from each container subject to this Section in accordance with the following requirements, as applicable to the container, except when the following special provisions for waste stabilization processes specified in subsection (b)(2) ~~of this Section~~ apply to the container:
- A) For a container having a design capacity greater than 0.1 m<sup>3</sup> (26 gal) and less than or equal to 0.46 m<sup>3</sup> (120 gal), the owner or operator must control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c) ~~of this Section~~;
- B) For a container having a design capacity greater than 0.46 m<sup>3</sup> (120 gal) that is not in light material service, the owner or operator must control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c) ~~of this Section~~; and
- C) For a container having a design capacity greater than 0.46 m<sup>3</sup> (120 gal) that is in light material service, the owner or operator must control air pollutant emissions from the container in accordance with the Container Level 2 standards specified in subsection (d) ~~of this Section~~.
- 2) When a container having a design capacity greater than 0.1 m<sup>3</sup> (26 gal) is used for treatment of a hazardous waste by a waste stabilization process, the owner or operator must control air pollutant emissions from the container in accordance with the Container Level 3 standards specified in subsection (e) ~~of this Section~~ at those times during the waste stabilization process when the hazardous waste in the container is exposed to the atmosphere.

- c) Container Level 1 standards.
- 1) A container using Container Level 1 controls is one of the following:
    - A) A container that meets the applicable USDOT regulations on packaging hazardous materials for transportation, as specified in subsection (f) ~~of this Section~~;
    - B) A container equipped with a cover and closure devices that form a continuous barrier over the container openings so that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container (e.g., a lid on a drum or a suitably secured tarp on a roll-off box) or may be an integral part of the container structural design (e.g., a “portable tank” or bulk cargo container equipped with a screw-type cap); and
    - C) An open-top container in which an organic-vapor suppressing barrier is placed on or over the hazardous waste in the container so that no hazardous waste is exposed to the atmosphere. One example of such a barrier is application of a suitable organic-vapor suppressing foam.
  - 2) A container used to meet the requirements of subsection (c)(1)(B) or (c)(1)(C) ~~of this Section~~ must be equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the hazardous waste to the atmosphere and to maintain the equipment integrity for as long as it is in service. Factors to be considered in selecting the materials of construction and designing the cover and closure devices must include the following: the organic vapor permeability; the effects of contact with the hazardous waste or its vapor managed in the container; the effects of outdoor exposure of the closure device or cover material to wind, moisture, and sunlight; and the operating practices for which the container is intended to be used.
  - 3) Whenever a hazardous waste is in a container using Container Level 1 controls, the owner or operator must install all covers and closure devices for the container, as applicable to the container, and secure and maintain each closure device in the closed position except as follows:
    - A) Opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container, as follows:
      - i) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator

must promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation; and

- ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator must promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first;
- B) Opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container as follows:
- i) For the purpose of meeting the requirements of this Section, an empty container, as defined in 35 Ill. Adm. Code 721.107(b), may be open to the atmosphere at any time (i.e., covers and closure devices are not required to be secured in the closed position on an empty container); and
  - ii) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container, as defined in 35 Ill. Adm. Code 721.107(b), the owner or operator must promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first;
- C) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator must promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container;



- D) Opening of a spring-loaded, pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device that vents to the atmosphere is allowed during normal operations for the purpose of maintaining the container internal pressure in accordance with the design specifications of the container. 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 so that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the owner or operator based on container 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 internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations; and
  - E) 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 of containers using Container Level 1 controls must inspect the containers and their covers and closure devices as follows:
- A) In the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility (i.e., it does not meet the conditions for an empty container as specified in 35 Ill. Adm. Code 721.107(b)), the owner or operator must visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection must be conducted on or before the date on which the container is accepted at the facility (i.e., the date when the container becomes subject to the Subpart CC container standards). For the purposes of this requirement, the date of acceptance is the date of signature that the facility owner or operator enters on Item 20 of the Uniform Hazardous Waste Manifest, as set forth in the appendix to 40 CFR 262 (Uniform Hazardous Waste Manifest and Instructions (EPA Forms 8700-22 and 8700-22A and Their Instructions)), incorporated by reference in 35 Ill. Adm. Code 720.111(b), as

required under Section 725.171. If a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (c)(4)(C) ~~of this Section~~;

- B) In the case when a container used for managing hazardous waste remains at the facility for a period of one year or more, the owner or operator must visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (c)(4)(C) ~~of this Section~~; and
  - C) When a defect is detected in the container, cover, or closure devices, the owner or operator must make first efforts at repair of the defect no later than 24 hours after detection, and repair must be completed as soon as possible but no later than five calendar days after detection. If repair of a defect cannot be completed within five calendar days, then the hazardous waste must be removed from the container and the container must not be used to manage hazardous waste until the defect is repaired.
- 5) The owner or operator must maintain at the facility a copy of the procedure used to determine that containers with capacity of 0.46 m<sup>3</sup> (120 gal) or greater which do not meet applicable USDOT regulations, as specified in subsection (f) ~~of this Section~~, are not managing hazardous waste in light material service.
- d) Container Level 2 standards.
- 1) A container using Container Level 2 controls is one of the following:
    - A) A container that meets the applicable USDOT regulations on packaging hazardous materials for transportation as specified in subsection (f) ~~of this Section~~;
    - B) A container that operates with no detectable organic emissions, as defined in Section 725.981, and determined in accordance with the procedure specified in subsection (g) ~~of this Section~~; and
    - C) A container that has been demonstrated within the preceding 12 months to be vapor-tight by using Reference Method 27 (Determination of Vapor Tightness of Gasoline Delivery Tank Using Pressure-Vacuum Test) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), in accordance with the procedure specified in subsection (h) ~~of this Section~~.

- 2) Transfer of hazardous waste into or out of a container using Container Level 2 controls must be conducted in such a manner as to minimize exposure of the hazardous waste to the atmosphere, to the extent practical, considering the physical properties of the hazardous waste and good engineering and safety practices for handling flammable, ignitable, explosive, reactive or other hazardous materials. Examples of container loading procedures that the USEPA considers to meet the requirements of this subsection (d)(2) include using any one of the following: a submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous waste is filled and subsequently purging the transfer line before removing it from the container opening.
- 3) Whenever a hazardous waste is in a container using Container Level 2 controls, the owner or operator must install all covers and closure devices for the container, and secure and maintain each closure device in the closed position, except as follows:
  - A) Opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container, as follows:
    - i) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator must promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation; and
    - ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator must promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first;
  - B) Opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container as follows:

- i) For the purpose of meeting the requirements of this Section, an empty container as defined in 35 Ill. Adm. Code 721.107(b) may be open to the atmosphere at any time (i.e., covers and closure devices are not required to be secured in the closed position on an empty container); and
  - ii) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container as defined in 35 Ill. Adm. Code 721.107(b), the owner or operator must promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first;
- C) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator must promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container;
- D) Opening of a spring-loaded, pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device that vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device must be designed to operate with no detectable organic emission when the device is secured in the closed position. The settings at which the device opens must be established so that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the owner or operator based on container 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 internal pressure of the container exceeds the internal pressure operating range for

the container as a result of loading operations or diurnal ambient temperature fluctuations; and

- E) 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 of containers using Container Level 2 controls must inspect the containers and their covers and closure devices as follows:
- A) In the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility (i.e., it does not meet the conditions for an empty container as specified in 35 Ill. Adm. Code 721.107(b)), the owner or operator must visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection must be conducted on or before the date on which the container is accepted at the facility (i.e., the date when the container becomes subject to the Subpart CC container standards). For the purposes of this requirement, the date of acceptance is the date of signature that the facility owner or operator enters on Item 20 of the Uniform Hazardous Waste Manifest, in the appendix to 40 CFR 262 (Uniform Hazardous Waste Manifest and Instructions (USEPA Forms 8700-22 and 8700-22A and Their Instructions)), as required under Section 725.171. If a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (d)(4)(C) ~~of this Section~~;
  - B) In the case when a container used for managing hazardous waste remains at the facility for a period of one year or more, the owner or operator must visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (d)(4)(C) ~~of this Section~~; and
  - C) When a defect is detected in the container, cover, or closure devices, the owner or operator must make first efforts at repair of the defect no later than 24 hours after detection, and repair must be completed as soon as possible but no later than five calendar days after detection. If repair of a defect cannot be completed within

five calendar days, then the hazardous waste must be removed from the container and the container must not be used to manage hazardous waste until the defect is repaired.

- e) Container Level 3 standards.
- 1) A container using Container Level 3 controls is one of the following:
    - A) A container that is vented directly through a closed-vent system to a control device in accordance with the requirements of subsection (e)(2)(B) ~~of this Section~~; or
    - B) A container that is vented inside an enclosure that is exhausted through a closed-vent system to a control device in accordance with the requirements of subsections (e)(2)(A) and (e)(2)(B) ~~of this Section~~.
  - 2) The owner or operator must meet the following requirements, as applicable to the type of air emission control equipment selected by the owner or operator:
    - A) The container 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 appendix B to 40 CFR 52.741 (VOM Measurement Techniques for Capture Efficiency), incorporated by reference in 35 Ill. Adm. Code 720.111(b). The enclosure may have permanent or temporary openings to allow worker access; passage of containers through the enclosure by conveyor or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator must 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; and
    - B) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 725.988.
  - 3) Safety devices, as defined in Section 725.981, may be installed and operated as necessary on any container, enclosure, closed-vent system, or control device used to comply with the requirements of subsection (e)(1) ~~of this Section~~.
  - 4) Owners and operators using Container Level 3 controls in accordance with the provisions of this Subpart CC must inspect and monitor the closed-vent systems and control devices, as specified in Section 725.988.

- 5) Owners and operators that use Container Level 3 controls in accordance with the provisions of this Subpart CC must prepare and maintain the records specified in Section 725.990(d).
  - 6) The transfer of hazardous waste into or out of a container using Container Level 3 controls must be conducted in such a manner as to minimize exposure of the hazardous waste to the atmosphere, to the extent practical considering the physical properties of the hazardous waste and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that USEPA considers to meet the requirements of this subsection (e)(6) include using any one of the following: the use of a submerged-fill pipe or other submerged-fill method to load liquids into the container; the use of a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or the use of a fitted opening in the top of a container through which the hazardous waste is filled and subsequently purging the transfer line before removing it from the container opening.
- f) For the purpose of compliance with subsection (c)(1)(A) or (d)(1)(A) ~~of this Section~~, containers must be used that meet the applicable USDOT regulations on packaging hazardous materials for transportation as follows:
- 1) The container meets the applicable requirements specified by USDOT in 49 CFR 178 (Specifications for Packaging), or 49 CFR 179 (Specifications for Tank Cars), each incorporated by reference in 35 Ill. Adm. Code 720.111(b);
  - 2) Hazardous waste is managed in the container in accordance with the applicable requirements specified by USDOT in subpart B of 49 CFR 107 (Exemptions), 49 CFR 172 (Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements), 49 CFR 173 (Shippers—General Requirements for Shipments and Packages), and 49 CFR 180 (Continuing Qualification and Maintenance of Packagings), each incorporated by reference in 35 Ill. Adm. Code 720.111(b);
  - 3) For the purpose of complying with this Subpart CC, no exceptions to the federal 49 CFR 178 or 179 regulations are allowed, except as provided for in subsection (f)(4) ~~of this Section~~; and
  - 4) For a lab pack that is managed in accordance with the USDOT requirements of 49 CFR 178 (Specifications for Packagings) for the purpose of complying with this Subpart CC, an owner or operator may comply with the exceptions for combination packagings specified by USDOT in 49 CFR 173.12(b) (Exceptions for Shipments of Waste Materials), incorporated by reference in 35 Ill. Adm. Code 720.111(b).

- g) To determine compliance with the no detectable organic emissions requirements of subsection (d)(1)(B) ~~of this Section~~, the procedure specified in Section 725.984(d) must be used.
- 1) Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the container, its cover, and associated closure devices, as applicable to the container, must be checked. Potential leak interfaces that are associated with containers include, but are not limited to: the interface of the cover rim and the container wall; the periphery of any opening on the container or container cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.
  - 2) The test must be performed when the container is filled with a material having a volatile organic concentration representative of the range of volatile organic concentrations for the hazardous wastes expected to be managed in this type of container. During the test, the container cover and closure devices must be secured in the closed position.
- h) The procedure for determining a container to be vapor-tight using Reference Method 27 for the purpose of complying with subsection (d)(1)(C) ~~of this Section~~ is as follows:
- 1) The test must be performed in accordance with Reference Method 27;
  - 2) A pressure measurement device must be used that has a precision of  $\pm 2.5$  mm (0.10 inch) water and that is capable of measuring above the pressure at which the container is to be tested for vapor tightness; and
  - 3) If the test results determined by Reference Method 27 indicate that the container sustains a pressure change less than or equal to 750 Pascals (0.11 psig) within five minutes after it is pressurized to a minimum of 4,500 Pascals (0.65 psig), then the container is determined to be vapor-tight.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART DD: CONTAINMENT BUILDINGS

##### **Section 725.1101 Design and Operating Standards**

- a) All containment buildings must comply with the following design and operating standards:
- 1) The containment building must be completely enclosed with a floor, walls, and a roof to prevent exposure to the elements (e.g. precipitation, wind, run on) and to assure containment of managed wastes;



- 2) The floor and containment walls of the unit, including the secondary containment system if required under subsection (b) ~~of this Section~~, must be designed and constructed of materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit, and to prevent failure due to pressure gradients, settlement, compression, or uplift, physical contact with the hazardous wastes to which they are exposed; climatic conditions; and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls. The unit must be designed so that it has sufficient structural strength to prevent collapse or other failure. All surfaces to be in contact with hazardous wastes must be chemically compatible with those wastes. The containment building must meet the structural integrity requirements established by professional organizations generally recognized by the industry such as the American Concrete Institute (ACI) and the American Society of Testing Materials (ASTM). If appropriate to the nature of the waste management operation to take place in the unit, an exception to the structural strength requirement may be made for light-weight doors and windows that meet these criteria:
    - A) They provide an effective barrier against fugitive dust emissions under subsection (c)(1)(D) ~~of this Section~~; and
    - B) The unit is designed and operated in a fashion that assures that wastes will not actually come in contact with these openings;
  - 3) Incompatible hazardous wastes or treatment reagents must not be placed in the unit or its secondary containment system if they could cause the unit or secondary containment system to leak, corrode, or otherwise fail; and
  - 4) A containment building must have a primary barrier designed to withstand the movement of personnel, waste, and handling equipment in the unit during the operating life of the unit and appropriate for the physical and chemical characteristics of the waste to be managed.
- b) For a containment building used to manage hazardous wastes containing free liquids or treated with free liquids (the presence of which is determined by the paint filter test, a visual examination, or other appropriate means), the owner or operator must include the following design features:
- 1) A primary barrier designed and constructed of materials to prevent the migration of hazardous constituents into the barrier (e.g., a geomembrane covered by a concrete wear surface).
  - 2) A liquid collection and removal system to minimize the accumulation of liquid on the primary barrier of the containment building:

- A) The primary barrier must be sloped to drain liquids to the associated collection system; and
  - B) Liquids and waste must be collected and removed to minimize hydraulic head on the containment system at the earliest practicable time.
- 3) A secondary containment system including a secondary barrier designed and constructed to prevent migration of hazardous constituents into the barrier, and a leak detection system that is capable of detecting failure of the primary barrier and collecting accumulated hazardous wastes and liquids at the earliest practicable time.
- A) The requirements of the leak detection component of the secondary containment system are satisfied by installation of a system that is, at a minimum, as follows:
    - i) It is constructed with a bottom slope of 1 percent or more; and
    - ii) It is constructed of a granular drainage material with a hydraulic conductivity of  $1 \times 10^{-2}$  cm/sec or more and a thickness of 12 inches (30.5 cm) or more, or constructed of synthetic or geonet drainage materials with a transmissivity of  $3 \times 10^{-5}$  m<sup>2</sup>/sec or more.
  - B) If treatment is to be conducted in the building, an area in which such treatment will be conducted must be designed to prevent the release of liquids, wet materials, or liquid aerosols to other portions of the building.
  - C) The secondary containment system must be constructed of materials that are chemically resistant to the waste and liquids managed in the containment building and of sufficient strength and thickness to prevent collapse under the pressure exerted by overlaying materials and by any equipment used in the containment building. (Containment buildings can serve as secondary containment systems for tanks placed within the building under certain conditions. A containment building can serve as an external liner system for a tank, provided it meets the requirements of Section 725.293(e)(1). In addition, the containment building must meet the requirements of subsections 725.293(b) and (c) to be an acceptable secondary containment system for a tank.)
- 4) For existing units other than 90-day generator units, USEPA may delay the secondary containment requirement for up to two years, based on a

demonstration by the owner or operator that the unit substantially meets the standards of this Subpart DD. In making this demonstration, the owner or operator must do each of the following:

- A) Provide written notice to USEPA of their request by November 16, 1992. This notification must describe the unit and its operating practices with specific reference to the performance of existing systems, and specific plans for retrofitting the unit with secondary containment;
  - B) Respond to any comments from USEPA on these plans within 30 days; and
  - C) Fulfill the terms of the revised plans, if such plans are approved by USEPA.
- c) Owners or operators of all containment buildings must do each of the following:
- 1) It must use controls and practice to ensure containment of the hazardous waste within the unit, and at a minimum do each of the following:
    - A) It must maintain the primary barrier to be free of significant cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be released from the primary barrier;
    - B) It must maintain the level of the stored or treated hazardous waste within the containment walls of the unit so that the height of any containment wall is not exceeded;
    - C) It must take measures to prevent the tracking of hazardous waste out of the unit by personnel or by equipment used in handling the waste. An area must be designated to decontaminate equipment and any rinsate must be collected and properly managed; and
    - D) It must take measures to control fugitive dust emissions such that any openings (doors, windows, vents, cracks, etc.) exhibit no visible emissions (see Reference Method 22 (Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b)). In addition, all associated particulate collection devices (e.g., fabric filter, electrostatic precipitator) must be operated and maintained with sound air pollution control practices (see 40 CFR 60 for guidance). This state of no visible emissions must be maintained effectively at all times during routine operating and maintenance conditions, including when vehicles and personnel are entering and exiting the unit;

BOARD NOTE: At 40 CFR 264.1101(c)(1)(iv), USEPA cites “40 CFR part 60, subpart 292.” At 57 Fed. Reg. 37217 (August 18, 1992), USEPA repeats this citation in the preamble discussion of adoption of the rules. No such provision exists in the Code of Federal Regulations. While 40 CFR 60.292 of the federal regulations pertains to control of fugitive dust emissions, that provision is limited in its application to glass melting furnaces. The Board has chosen to use the general citation: “40 CFR 60.”

- 2) It must obtain and keep on-site a certification by a qualified Professional Engineer that the containment building design meets the requirements of subsections (a) through (c) ~~of this Section~~;
- 3) Throughout the active life of the containment building, if the owner or operator detects a condition that could lead to or has caused a release of hazardous waste, it must repair the condition promptly, in accordance with the following procedures:
  - A) Upon detection of a condition that has caused a release of hazardous wastes (e.g., upon detection of leakage from the primary barrier) the owner or operator must do the following:
    - i) Enter a record of the discovery in the facility operating record;
    - ii) Immediately remove the portion of the containment building affected by the condition from service;
    - iii) Determine what steps must be taken to repair the containment building, remove any leakage from the secondary collection system, and establish a schedule for accomplishing the cleanup and repairs; and
    - iv) Within seven days after the discovery of the condition, notify the Agency in writing of the condition, and within 14 working days, provide a written notice to the Agency with a description of the steps taken to repair the containment building, and the schedule for accomplishing the work;
  - B) The Agency must review the information submitted, make a determination regarding whether the containment building must be removed from service completely or partially until repairs and cleanup are complete, and notify the owner or operator of the determination and the underlying rationale in writing; and
  - C) Upon completing all repairs and cleanup the owner and operator must notify the Agency in writing and provide a verification, signed by a qualified, registered professional engineer, that the

repairs and cleanup have been completed according to the written plan submitted in accordance with subsection (c)(3)(A)(iv) ~~of this Section~~; and

- 4) It must inspect and record in the facility's operating record at least once every seven days, data gathered from monitoring and leak detection equipment as well as the containment building and the area immediately surrounding the containment building to detect signs of releases of hazardous waste..
- d) For a containment building that contains areas both with and without secondary containment, the owner or operator must do the following:
    - 1) Design and operate each area in accordance with the requirements enumerated in subsections (a) through (c) ~~of this Section~~;
    - 2) Take measures to prevent the release of liquids or wet materials into areas without secondary containment; and
    - 3) Maintain in the facility's operating log a written description of the operating procedures used to maintain the integrity of areas without secondary containment.
  - e) Notwithstanding any other provision of this Subpart DD, the Agency must, in writing, allow the use of alternatives to the requirements for secondary containment for a permitted containment building where the Agency has determined that the facility owner or operator has adequately demonstrated that the only free liquids in the unit are limited amounts of dust suppression liquids required to meet occupational health and safety requirements, and where containment of managed wastes and liquids can be assured without a secondary containment system.

(Source: Amended at 40 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 A: GENERAL

Section  
726.102

Electronic Reporting

**SUBPART C: RECYCLABLE MATERIALS USED IN A MANNER  
CONSTITUTING DISPOSAL**

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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**

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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**

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**

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**SUBPART G: SPENT LEAD-ACID BATTERIES BEING RECLAIMED**

Section	
726.180	Applicability and Requirements

**SUBPART H: HAZARDOUS WASTE BURNED IN BOILERS AND  
INDUSTRIAL FURNACES**

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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
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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
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#### SUBPART M: MILITARY MUNITIONS

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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
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#### SUBPART N: CONDITIONAL EXEMPTION FOR LOW-LEVEL MIXED WASTE STORAGE, TREATMENT, TRANSPORTATION AND DISPOSAL

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726.325	Wastes Eligible for a Storage and Treatment Conditional Exemption for Low-Level Mixed Waste
726.330	Conditions to Qualify for and Maintain a Storage and Treatment Conditional Exemption
726.335	Treatment Allowed by a Storage and Treatment Conditional Exemption
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726.410	Wastes Eligible for a Transportation and Disposal Conditional Exemption
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726.420	Treatment Standards for Eligible Waste
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726.440	Containers Used for Disposal of Exempted Waste
726.445	Notification

726.450	Recordkeeping for a Transportation and Disposal Conditional Exemption
726.455	Loss of a Transportation and Disposal Conditional Exemption and Required Action
726.460	Reclaiming a Lost Transportation and Disposal Conditional Exemption
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
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726.APPENDIX E	Risk-Specific Doses
726.APPENDIX F	Stack Plume Rise
726.APPENDIX G	Health-Based Limits for Exclusion of Waste-Derived Residues
726.APPENDIX H	Potential PICs for Determination of Exclusion of Waste-Derived Residues
726.APPENDIX I	Methods Manual for Compliance with BIF Regulations
726.APPENDIX J	Guideline on Air Quality Models (Repealed)
726.APPENDIX K	Lead-Bearing Materials that May be Processed in Exempt Lead Smelters
726.APPENDIX L	Nickel or Chromium-Bearing Materials that May Be Processed in Exempt Nickel-Chromium Recovery Furnaces
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726.TABLE A	Exempt Quantities for Small Quantity Burner Exemption

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

**SOURCE:** Adopted in 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 R95-4/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. 18042, effective September 28, 1998; amended in R99-15 at 23 Ill. Reg. 9482, effective July 26, 1999; amended in R00-13 at 24 Ill. Reg. 9853, effective June 20, 2000; amended in R02-1/R02-12/R02-17 at 26 Ill. Reg. 6667, effective April 22, 2002; amended in R03-7 at 27 Ill. Reg. 4200, effective February 14, 2003; amended in R03-18 at 27 Ill. Reg. 12916, effective July 17, 2003; amended in R06-5/R06-6/R06-7 at 30 Ill. Reg. 3700, effective February 23, 2006; amended in R06-16/R06-17/R06-18 at 31 Ill. Reg. 1096, effective December 20, 2006; amended in R07-5/R07-14 at 32 Ill. Reg. 12741, effective July 14, 2008; amended in R11-2/R11-16 at 35 Ill. Reg. 18117, effective October 14, 2011; amended in R13-5 at 37 Ill. Reg. 3249, effective March 4, 2013; amended in R13-15 at 37 Ill. Reg. 17888, effective October 24, 2013; amended in R16-7 at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.



SUBPART H: HAZARDOUS WASTE BURNED IN BOILERS AND  
INDUSTRIAL FURNACES

**Section 726.202 Permit Standards for Burners**

- a) Applicability.
  - 1) General. An owner or operator of a BIF that burns hazardous waste and which does not operate under interim status must comply with the requirements of this Section and 35 Ill. Adm. Code 703.208 and 703.232, unless exempt pursuant to the small quantity burner exemption of Section 726.208.
  - 2) Applicability of 35 Ill. Adm. Code 724 standards. An owner or operator of a BIF that burns hazardous waste is subject to the following provisions of 35 Ill. Adm. Code 724, except as provided otherwise by this Subpart H:
    - A) In Subpart A (General), 35 Ill. Adm. Code 724.104;
    - B) In Subpart B (General facility standards), 35 Ill. Adm. Code 724.111 through 724.118;
    - C) In Subpart C (Preparedness and prevention), 35 Ill. Adm. Code 724.131 through 724.137;
    - D) In Subpart D (Contingency plan and emergency procedures), 35 Ill. Adm. Code 724.151 through 724.156;
    - E) In Subpart E (Manifest system, recordkeeping and reporting), the applicable provisions of 35 Ill. Adm. Code 724.171 through 724.177;
    - F) In Subpart F (Releases from Solid Waste Management Units), 35 Ill. Adm. Code 724.190 and 724.201;
    - G) In Subpart G (Closure and post-closure), 35 Ill. Adm. Code 724.211 through 724.215;
    - H) In Subpart H (Financial requirements), 35 Ill. Adm. Code 724.241, 724.242, 724.243, and 724.247 through 724.251, except that the State of Illinois and the federal government are exempt from the requirements of Subpart H of 35 Ill. Adm. Code 724; and
    - I) Subpart BB (Air emission standards for equipment leaks), except 35 Ill. Adm. Code 724.950(a).
- b) Hazardous waste analysis.

- 1) The owner or operator must provide an analysis of the hazardous waste that quantifies the concentration of any constituent identified in Appendix H of 35 Ill. Adm. Code 721 that is reasonably expected to be in the waste. Such constituents must be identified and quantified if present, at levels detectable by using appropriate analytical methods. The constituents listed in Appendix H of 35 Ill. Adm. Code 721 that are excluded from this analysis must be identified and the basis for their exclusion explained. This analysis must provide all information required by this Subpart H and 35 Ill. Adm. Code 703.208 and 703.232 and must enable the Agency to prescribe such permit conditions as are necessary to adequately protect human health and the environment. Such analysis must be included as a portion of the Part B permit application, or, for facilities operating under the interim status standards of this Subpart H, as a portion of the trial burn plan that may be submitted before the Part B application pursuant to provisions of 35 Ill. Adm. Code 703.232(g), as well as any other analysis required by the Agency. The owner or operator of a BIF not operating under the interim status standards must provide the information required by 35 Ill. Adm. Code 703.208 and 703.232 in the Part B application to the greatest extent possible.
  - 2) Throughout normal operation, the owner or operator must conduct sampling and analysis as necessary to ensure that the hazardous waste, other fuels, and industrial furnace feedstocks fired into the BIF are within the physical and chemical composition limits specified in the permit.
- c) Emissions standards. An owner or operator must comply with emissions standards provided by Sections 726.204 through 726.207.
- d) Permits.
- 1) The owner or operator must burn only hazardous wastes specified in the facility permit and only under the operating conditions specified pursuant to subsection (e) ~~of this Section~~, except in approved trial burns under the conditions specified in 35 Ill. Adm. Code 703.232.
  - 2) Hazardous wastes not specified in the permit must not be burned until operating conditions have been specified under a new permit or permit modification, as applicable. Operating requirements for new wastes must be based on either trial burn results or alternative data included with Part B of a permit application pursuant to 35 Ill. Adm. Code 703.208.
  - 3) BIFs operating under the interim status standards of Section 726.203 are permitted pursuant to procedures provided by 35 Ill. Adm. Code 703.232(g).
  - 4) A permit for a new BIF (those BIFs not operating under the interim status standards) must establish appropriate conditions for each of the applicable requirements of this Section, including but not limited to allowable hazardous waste firing rates and operating conditions necessary to meet the

requirements of subsection (e) ~~of this Section~~, in order to comply with the following standards:

- A) 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 device to a point of operational readiness to conduct a trial burn, not to exceed a duration of 720 hours operating time when burning hazardous waste, the operating requirements must be those most likely to ensure compliance with the emission standards of Sections 726.204 through 726.207, based on the Agency's engineering judgment. If the applicant is seeking a waiver from a trial burn to demonstrate conformance with a particular emission standard, the operating requirements during this initial period of operation must include those specified by the applicable provisions of Section 726.204, Section 726.205, Section 726.206, or Section 726.207. The Agency must extend the duration of this period for up to 720 additional hours when good cause for the extension is demonstrated by the applicant.
  - B) For the duration of the trial burn, the operating requirements must be sufficient to demonstrate compliance with the emissions standards of Sections 726.204 through 726.207 and must be in accordance with the approved trial burn plan;
  - C) For the period immediately following completion of the trial burn, and only for the minimum period sufficient to allow sample analysis, data computation, submission of the trial burn results by the applicant, review of the trial burn results, and modification of the facility permit by the Agency to reflect the trial burn results, the operating requirements must be those most likely to ensure compliance with the emission standards Sections 726.204 through 726.207 based on the Agency's engineering judgment.
  - D) For the remaining duration of the permit, the operating requirements must be those demonstrated in a trial burn or by alternative data specified in 35 Ill. Adm. Code 703.208, as sufficient to ensure compliance with the emissions standards of Sections 726.204 through 726.207.
- e) Operating requirements.
- 1) General. A BIF burning hazardous waste must be operated in accordance with the operating requirements specified in the permit at all times when there is hazardous waste in the unit.
  - 2) Requirements to ensure compliance with the organic emissions standards.

- A) DRE (destruction or removal efficiency) standard. Operating conditions must be specified in either of the following ways: on a case-by-case basis for each hazardous waste burned, which conditions must be demonstrated (in a trial burn or by alternative data, as specified in 35 Ill. Adm. Code 703.208) to be sufficient to comply with the DRE performance standard of Section 726.204(a), or as special operating requirements provided by Section 726.204(a)(4) for the waiver of the DRE trial burn. When the DRE trial burn is not waived pursuant to Section 726.204(a)(4), each set of operating requirements must specify the composition of the hazardous waste (including acceptable variations in the physical and chemical properties of the hazardous waste that will not affect compliance with the DRE performance standard) to which the operating requirements apply. For each such hazardous waste, the permit must specify acceptable operating limits including, but not limited to, the following conditions, as appropriate:
- i) Feed rate of hazardous waste and other fuels measured and specified as prescribed in subsection (e)(6) ~~of this Section~~;
  - ii) Minimum and maximum device production rate when producing normal product expressed in appropriate units, measured and specified as prescribed in subsection (e)(6) ~~of this Section~~;
  - iii) Appropriate controls of the hazardous waste firing system;
  - iv) Allowable variation in BIF system design or operating procedures;
  - v) Minimum combustion gas temperature measured at a location indicative of combustion chamber temperature, measured, and specified as prescribed in subsection (e)(6) ~~of this Section~~;
  - vi) An appropriate indicator of combustion gas velocity, measured and specified as prescribed in subsection (e)(6) ~~of this Section~~, unless documentation is provided pursuant to 35 Ill. Adm. Code 703.232 demonstrating adequate combustion gas residence time; and
  - vii) Such other operating requirements as are necessary to ensure that the DRE performance standard of Section 726.204(a) is met.
- B) CO and hydrocarbon (HC) standards. The permit must incorporate a CO limit and, as appropriate, a HC limit as provided by Section

726.204(b), (c), (d), (e), and (f). The permit limits must be specified as follows:

- i) When complying with the CO standard of Section 726.204(b)(1), the permit limit is 100 ppmv;
  - ii) When complying with the alternative CO standard pursuant to Section 726.204(c), the permit limit for CO is based on the trial burn and is established as the average over all valid runs of the highest hourly rolling average CO level of each run; and, the permit limit for HC is 20 ppmv (as defined in Section 726.204(c)(1)), except as provided in Section 726.204(f); or
  - iii) When complying with the alternative HC limit for industrial furnaces pursuant to Section 726.204(f), the permit limit for HC and CO is the baseline level when hazardous waste is not burned as specified by that subsection.
- C) Start-up and shut-down. During start-up and shut-down of the BIF, hazardous waste (except waste fed solely as an ingredient under the Tier I (or adjusted Tier I) feed rate screening limits for metals and chloride/chlorine, and except low risk waste exempt from the trial burn requirements pursuant to Sections 726.204(a)(5), 726.205, 726.206, and 726.207) must not be fed into the device, unless the device is operating within the conditions of operation specified in the permit.
- 3) Requirements to ensure conformance with the particulate matter (PM) standard.
- A) Except as provided in subsections (e)(3)(B) and (e)(3)(C) ~~of this Section~~, the permit must specify the following operating requirements to ensure conformance with the PM standard specified in Section 726.205:
    - i) Total ash feed rate to the device from hazardous waste, other fuels, and industrial furnace feedstocks, measured and specified as prescribed in subsection (e)(6) ~~of this Section~~;
    - ii) Maximum device production rate when producing normal product expressed in appropriate units, and measured and specified as prescribed in subsection (e)(6) ~~of this Section~~;
    - iii) Appropriate controls on operation and maintenance of the hazardous waste firing system and any air pollution control system (APCS);

- iv) Allowable variation in BIF system design including any APCS or operating procedures; and
  - v) Such other operating requirements as are necessary to ensure that the PM standard in Section 726.205(a) is met.
- B) Permit conditions to ensure conformance with the PM standard must not be provided for facilities exempt from the PM standard pursuant to Section 726.205(b);
- C) For cement kilns and light-weight aggregate kilns, permit conditions to ensure compliance with the PM standard must not limit the ash content of hazardous waste or other feed materials.
- 4) Requirements to ensure conformance with the metals emissions standard.
- A) For conformance with the Tier I (or adjusted Tier I) metals feed rate screening limits of Section 726.206(b) or (e), the permit must specify the following operating requirements:
- i) Total feed rate of each metal in hazardous waste, other fuels and industrial furnace feedstocks measured and specified pursuant to provisions of subsection (e)(6) ~~of this Section~~;
  - ii) Total feed rate of hazardous waste measured and specified as prescribed in subsection (e)(6) ~~of this Section~~; and
  - iii) A sampling and metals analysis program for the hazardous waste, other fuels and industrial furnace feedstocks;
- B) For conformance with the Tier II metals emission rate screening limits pursuant to Section 726.206(c) and the Tier III metals controls pursuant to Section 726.206(d), the permit must specify the following operating requirements:
- i) Maximum emission rate for each metal specified as the average emission rate during the trial burn;
  - ii) Feed rate of total hazardous waste and pumpable hazardous waste, each measured and specified as prescribed in subsection (e)(6)(A) ~~of this Section~~;
  - iii) Feed rate of each metal in the following feedstreams, measured and specified as prescribed in subsections (e)(6) ~~of this Section~~: total feed streams; total hazardous waste feed; and total pumpable hazardous waste feed;

BOARD NOTE: The Board has combined the text of 40 CFR 266.102(e)(4)(ii)(C)(1) and (e)(4)(ii)(C)(2) into this subsection (e)(4)(B)(iii) to comport with Illinois Administrative Code codification requirements.

- iv) Total feed rate of chlorine and chloride in total feed streams measured and specified as prescribed in subsection (e)(6) ~~of this Section;~~
  - v) Maximum combustion gas temperature measured at a location indicative of combustion chamber temperature, and measured and specified as prescribed in subsection (e)(6) ~~of this Section;~~
  - vi) Maximum flue gas temperature at the inlet to the PM APCS measured and specified as prescribed in subsection (e)(6) ~~of this Section;~~
  - vii) Maximum device production rate when producing normal product expressed in appropriate units and measured and specified as prescribed in subsection (e)(6) ~~of this Section;~~
  - viii) Appropriate controls on operation and maintenance of the hazardous waste firing system and any APCS;
  - ix) Allowable variation in BIF system design including any APCS or operating procedures; and
  - x) Such other operating requirements as are necessary to ensure that the metals standards pursuant to Section 726.206(c) or (d) are met.
- C) For conformance with an alternative implementation approach approved by the Agency pursuant to Section 726.206(f), the permit must specify the following operating requirements:
- i) Maximum emission rate for each metal specified as the average emission rate during the trial burn;
  - ii) Feed rate of total hazardous waste and pumpable hazardous waste, each measured and specified as prescribed in subsection (e)(6)(A) ~~of this Section;~~
  - iii) Feed rate of each metal in the following feedstreams, measured and specified as prescribed in subsection (e)(6) ~~of this Section:~~ total hazardous waste feed; and total pumpable hazardous waste feed;

BOARD NOTE: The Board has combined the text of 40 CFR 266.102(e)(4)(iii)(C)(1) and (e)(4)(iii)(C)(2) into this subsection (e)(4)(C)(iii) to comport with Illinois Administrative Code codification requirements.

- iv) Total feed rate of chlorine and chloride in total feed streams measured and specified prescribed in subsection (e)(6)-~~of this Section~~;
  - v) Maximum combustion gas temperature measured at a location indicative of combustion chamber temperature, and measured and specified as prescribed in subsection (e)(6)-~~of this Section~~;
  - vi) Maximum flue gas temperature at the inlet to the PM APCS measured and specified as prescribed in subsection (e)(6)-~~of this Section~~;
  - vii) Maximum device production rate when producing normal product expressed in appropriate units and measured and specified as prescribed in subsection (e)(6)-~~of this Section~~;
  - viii) Appropriate controls on operation and maintenance of the hazardous waste firing system and any APCS;
  - ix) Allowable variation in BIF system design including any APCS or operating procedures; and
  - x) Such other operating requirements as are necessary to ensure that the metals standards pursuant to Section 726.206(c) or (d) are met.
- 5) Requirements to ensure conformance with the HCl and chlorine gas standards.
- A) For conformance with the Tier I total chlorine and chloride feed rate screening limits of Section 726.207(b)(1), the permit must specify the following operating requirements:
    - i) Feed rate of total chlorine and chloride in hazardous waste, other fuels and industrial furnace feedstocks measured and specified as prescribed in subsection (e)(6)-~~of this Section~~;
    - ii) Feed rate of total hazardous waste measured and specified as prescribed in subsection (e)(6)-~~of this Section~~; and



- iii) A sampling and analysis program for total chlorine and chloride for the hazardous waste, other fuels and industrial furnace feedstocks;
- B) For conformance with the Tier II HCl and chlorine gas emission rate screening limits pursuant to Section 726.207(b)(2) and the Tier III HCl and chlorine gas controls pursuant to Section 726.207(c), the permit must specify the following operating requirements:
- i) Maximum emission rate for HCl and for chlorine gas specified as the average emission rate during the trial burn;
  - ii) Feed rate of total hazardous waste measured and specified as prescribed in subsection (e)(6) ~~of this Section~~;
  - iii) Total feed rate of chlorine and chloride in total feed streams, measured and specified as prescribed in subsection (e)(6) ~~of this Section~~;
  - iv) Maximum device production rate when producing normal product expressed in appropriate units, measured and specified as prescribed in subsection (e)(6) ~~of this Section~~;
  - v) Appropriate controls on operation and maintenance of the hazardous waste firing system and any APCS;
  - vi) Allowable variation in BIF system design including any APCS or operating procedures; and
  - vii) Such other operating requirements as are necessary to ensure that the HCl and chlorine gas standards pursuant to Section 726.207(b)(2) or (c) are met.
- 6) Measuring parameters and establishing limits based on trial burn data.
- A) General requirements. As specified in subsections (e)(2) through (e)(5) ~~of this Section~~, each operating parameter must be measured, and permit limits on the parameter must be established, according to either of the following procedures:
- i) Instantaneous limits. A parameter is measured and recorded on an instantaneous basis (i.e., the value that occurs at any time) and the permit limit specified as the time-weighted average during all valid runs of the trial burn; or
  - ii) Hourly rolling average. The limit for a parameter must be established and continuously monitored on an hourly rolling average basis, as defined in Section 726.200(i). The permit

limit for the parameter must be established based on trial burn data as the average over all valid test runs of the highest hourly rolling average value for each run.

BOARD NOTE: The Board has combined the text of 40 CFR ~~266.100(e)(6)(i)(B)(1)~~ 266.102(e)(6)(i)(B)(1) and (e)(6)(i)(B)(2) into this subsection (e)(6)(A)(ii) and moved the text of 40 CFR ~~266.100(e)(6)(i)(B)(1)(i)~~ 266.102(e)(6)(i)(B)(1)(i) and (e)(6)(i)(B)(1)(ii) to appear as definitions of “continuous monitor” and “hourly rolling average,” respectively, in Section 726.200(i) to comport with Illinois Administrative Code codification requirements.

- B) Rolling average limits for carcinogenic metals and lead. Feed rate limits for the carcinogenic metals (as defined in Section 726.200(i)) and lead must be established either on an hourly rolling average basis, as prescribed by subsection (e)(6)(A) ~~of this Section~~, or on (up to) a 24 hour rolling average basis. If the owner or operator elects to use an average period from 2 to 24 hours, the following requirements apply:
- i) The feed rate of each metal must be limited at any time to ten times the feed rate that would be allowed on an hourly rolling average basis;
  - ii) The continuous monitor must meet the specifications of “continuous monitor,” “rolling average for the selected averaging period,” and “one hour block average” as defined in Section 726.200(i); and
- BOARD NOTE: The Board has moved the text of 40 CFR ~~266.100(e)(6)(ii)(B)(1)~~ 266.102(e)(6)(ii)(B)(1) and (e)(6)(ii)(B)(2) to appear as definitions in Section 726.200(i) to comport with Illinois Administrative Code codification requirements.
- iii) The permit limit for the feed rate of each metal must be established based on trial burn data as the average over all valid test runs of the highest hourly rolling average feed rate for each run.
- C) Feed rate limits for metals, total chlorine and chloride, and ash. Feed rate limits for metals, total chlorine and chloride, and ash are established and monitored by knowing the concentration of the substance (i.e., metals, chloride/chlorine and ash) in each feedstream and the flow rate of the feedstream. To monitor the feed rate of these

substances, the flow rate of each feedstream must be monitored pursuant to the continuous monitoring requirements of subsections (e)(6)(A) and (e)(6)(B) ~~of this Section.~~

- D) Conduct of trial burn testing.
- i) If compliance with all applicable emissions standards of Sections 726.204 through 726.207 is not demonstrated simultaneously during a set of test runs, the operating conditions of additional test runs required to demonstrate compliance with remaining emissions standards must be as close as possible to the original operating conditions.
  - ii) Prior to obtaining test data for purposes of demonstrating compliance with the emissions standards of Sections 726.204 through 726.207 or establishing limits on operating parameters pursuant to this Section, the unit must operate under trial burn conditions for a sufficient period to reach steady-state operations. However, industrial furnaces that recycle collected PM back into the furnace and that comply with an alternative implementation approach for metals pursuant to Section 726.206(f) need not reach steady state conditions with respect to the flow of metals in the system prior to beginning compliance testing for metals emissions.
  - iii) Trial burn data on the level of an operating parameter for which a limit must be established in the permit must be obtained during emissions sampling for the pollutants (i.e., metals, PM, HCl/chlorine gas, organic compounds) for which the parameter must be established as specified by this subsection (e).
- 7) General requirements.
- A) Fugitive emissions. Fugitive emissions must be controlled in one of the following ways:
- i) By keeping the combustion zone totally sealed against fugitive emissions;
  - ii) By maintaining the combustion zone pressure lower than atmospheric pressure; or
  - iii) By an alternative means of control demonstrated (with Part B of the permit application) to provide fugitive emissions control equivalent to maintenance of combustion zone pressure lower than atmospheric pressure.

- B) Automatic waste feed cutoff. A BIF must be operated with a functioning system that automatically cuts off the hazardous waste feed when operating conditions deviate from those established pursuant to this Section. In addition, the following requirements apply:
- i) The permit limit for (the indicator of) minimum combustion chamber temperature must be maintained while hazardous waste or hazardous waste residues remain in the combustion chamber;
  - ii) Exhaust gases must be ducted to the APCS operated in accordance with the permit requirements while hazardous waste or hazardous waste residues remain in the combustion chamber; and
  - iii) Operating parameters for which permit limits are established must continue to be monitored during the cutoff, and the hazardous waste feed must not be restarted until the levels of those parameters comply with the permit limits. For parameters that are monitored on an instantaneous basis, the Agency must establish a minimum period of time after a waste feed cutoff during which the parameter must not exceed the permit limit before the hazardous waste feed is restarted.
- C) Changes. A BIF must cease burning hazardous waste when combustion properties or feed rates of the hazardous waste, other fuels or industrial furnace feedstocks, or the BIF design or operating conditions deviate from the limits as specified in the permit.
- 8) Monitoring and Inspections.
- A) The owner or operator must monitor and record the following, at a minimum, while burning hazardous waste:
- i) If specified by the permit, feed rates and composition of hazardous waste, other fuels, and industrial furnace feedstocks and feed rates of ash, metals, and total chlorine and chloride;
  - ii) If specified by the permit, CO, HCs, and oxygen on a continuous basis at a common point in the BIF downstream of the combustion zone and prior to release of stack gases to the atmosphere in accordance with operating requirements specified in subsection (e)(2)(B) of this Section. CO, HC, and oxygen monitors must be installed, operated, and

maintained in accordance with methods specified in Appendix I of this Part; and

- iii) Upon the request of the Agency, sampling and analysis of the hazardous waste (and other fuels and industrial furnace feedstocks as appropriate), residues, and exhaust emissions must be conducted to verify that the operating requirements established in the permit achieve the applicable standards of Sections 726.204, 726.205, 726.206, and 726.207.
- B) All monitors must record data in units corresponding to the permit limit unless otherwise specified in the permit.
  - C) The BIF and associated equipment (pumps, valves, pipes, fuel storage tanks, etc.) must be subjected to thorough visual inspection when it contains hazardous waste, at least daily for leaks, spills, fugitive emissions, and signs of tampering.
  - D) The automatic hazardous waste feed cutoff system and associated alarms must be tested at least once every seven days when hazardous waste is burned to verify operability, unless the applicant demonstrates to the Agency that weekly inspections will unduly restrict or upset operations and that less frequent inspections will be adequate. At a minimum, operational testing must be conducted at least once every 30 days.
  - E) These monitoring and inspection data must be recorded and the records must be placed in the operating record required by 35 Ill. Adm. Code 724.173.
- 9) Direct transfer to the burner. If hazardous waste is directly transferred from a transport vehicle to a BIF without the use of a storage unit, the owner and operator must comply with Section 726.211.
  - 10) Recordkeeping. The owner or operator must maintain in the operating record of the facility all information and data required by this Section for five years.
  - 11) Closure. At closure, the owner or operator must remove all hazardous waste and hazardous waste residues (including, but not limited to, ash, scrubber waters, and scrubber sludges) from the BIF.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 726.203 Interim Status Standards for Burners**

- a) Purpose, scope, and applicability.

- 1) General.
  - A) The purpose of this Section is to establish minimum national standards for owners and operators of “existing” BIFs that burn hazardous waste where such standards define the acceptable management of hazardous waste during the period of interim status. The standards of this Section apply to owners and operators of existing facilities until either a permit is issued under Section 726.202(d) or until closure responsibilities identified in this Section are fulfilled.
  - B) “Existing” or “in existence” means a BIF for which the owner or operator filed a certification of precompliance with USEPA pursuant to federal 40 CFR 266.103(b); provided, however, that USEPA has not determined that the certification is invalid.
  - C) If a BIF is located at a facility that already has a RCRA permit or interim status, then the owner or operator must comply with the applicable regulations dealing with permit modifications in 35 Ill. Adm. Code 703.280 or changes in interim status in 35 Ill. Adm. Code 703.155.
- 2) Exemptions. The requirements of this Section do not apply to hazardous waste and facilities exempt under Section 726.200(b) or 726.208.
- 3) Prohibition on burning dioxin-listed wastes. The following hazardous waste listed for dioxin and hazardous waste derived from any of these wastes must not be burned in a BIF operating under interim status: USEPA hazardous waste numbers F020, F021, F022, F023, F026, and F027.
- 4) Applicability of 35 Ill. Adm. Code 725 standards. An owner or operator of a BIF that burns hazardous waste and which is operating under interim status is subject to the following provisions of 35 Ill. Adm. Code 725, except as provided otherwise by this Section:
  - A) In Subpart A of 35 Ill. Adm. Code 725 (General), 35 Ill. Adm. Code 725.104;
  - B) In Subpart B of 35 Ill. Adm. Code 725 (General facility standards), 35 Ill. Adm. Code 725.111 through 725.117;
  - C) In Subpart C of 35 Ill. Adm. Code 725 (Preparedness and prevention), 35 Ill. Adm. Code 725.131 through 725.137;
  - D) In Subpart D of 35 Ill. Adm. Code 725 (Contingency plan and emergency procedures), 35 Ill. Adm. Code 725.151 through 725.156;

- E) In Subpart E of 35 Ill. Adm. Code 725 (Manifest system, recordkeeping and reporting), 35 Ill. Adm. Code 725.171 through 725.177, except that 35 Ill. Adm. Code 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;
  - F) In Subpart G of 35 Ill. Adm. Code 725 (Closure and post-closure), 35 Ill. Adm. Code 725.211 through 725.215;
  - G) In Subpart H of 35 Ill. Adm. Code 725 (Financial requirements), 35 Ill. Adm. Code 725.241, 725.242, 725.243, and 725.247 through 725.250, except that the State of Illinois and the federal government are exempt from the requirements of Subpart H of 35 Ill. Adm. Code 725; and
  - H) In Subpart BB of 35 Ill. Adm. Code 725 (Air emission standards for equipment leaks), except 35 Ill. Adm. Code 725.950(a).
- 5) Special requirements for furnaces. The following controls apply during interim status to industrial furnaces (e.g., kilns, cupolas) that feed hazardous waste for a purpose other than solely as an ingredient (see subsection (a)(5)(B) ~~of this Section~~) at any location other than the hot end where products are normally discharged or where fuels are normally fired:
- A) Controls.
    - i) The hazardous waste must be fed at a location where combustion gas temperature is at least 1800° F;
    - ii) The owner or operator must determine that adequate oxygen is present in combustion gases to combust organic constituents in the waste and retain documentation of such determination in the facility record;
    - iii) For cement kiln systems, the hazardous waste must be fed into the kiln; and
    - iv) The HC controls of Section 726.204(f) or subsection (c)(5) ~~of this Section~~ apply upon certification of compliance under subsection (c) ~~of this Section~~, irrespective of the CO level achieved during the compliance test.
  - B) Burning hazardous waste solely as an ingredient. A hazardous waste is burned for a purpose other than “solely as an ingredient” if it meets either of the following criteria:
    - i) The hazardous waste has a total concentration of nonmetal compounds listed in Appendix H of 35 Ill. Adm. Code 721,

exceeding 500 ppm by weight, as fired and so is considered to be burned for destruction. The concentration of nonmetal compounds in a waste as-generated may be reduced to the 500 ppm limit by bona fide treatment that removes or destroys nonmetal constituents. Blending for dilution to meet the 500 ppm limit is prohibited and documentation that the waste has not been impermissibly diluted must be retained in the facility record; or

- ii) The hazardous waste has a heating value of 5,000 Btu/lb or more, as fired, and so is considered to be burned as fuel. The heating value of a waste as-generated may be reduced to below the 5,000 Btu/lb limit by bona fide treatment that removes or destroys organic constituents. The heating value of a waste as-generated may be reduced to below the 5,000 Btu/lb limit by bona fide treatment that removes or destroys organic constituents. Blending to augment the heating value to meet the 5,000 Btu/lb limit is prohibited and documentation that the waste has not been impermissibly blended must be retained in the facility record.
- 6) Restrictions on burning hazardous waste that is not a fuel. Prior to certification of compliance under subsection (c) ~~of this Section~~, an owner or operator must not feed hazardous waste that has a heating value less than 5000 Btu/lb, as generated, (except that the heating value of a waste as-generated may be increased to above the 5,000 Btu/lb limit by bona fide treatment; however blending to augment the heating value to meet the 5,000 Btu/lb limit is prohibited and records must be kept to document that impermissible blending has not occurred) in a BIF, except that the following may occur:
- A) Hazardous waste may be burned solely as an ingredient;
  - B) Hazardous waste may be burned for purposes of compliance testing (or testing prior to compliance testing) for a total period of time not to exceed 720 hours;
  - C) Such waste may be burned if the Agency has documentation to show that the following was true prior to August 21, 1991:
    - i) The BIF was operating under the interim status standards for incinerators or thermal treatment units, Subparts O or P of 35 Ill. Adm. Code 725;
    - ii) The BIF met the interim status eligibility requirements under 35 Ill. Adm. Code 703.153 for Subparts O or P of 35 Ill. Adm. Code 725; and



- iii) Hazardous waste with a heating value less than 5,000 Btu/lb was burned prior to that date; or
  - D) Such waste may be burned in a halogen acid furnace if the waste was burned as an excluded ingredient under 35 Ill. Adm. Code 721.102(e) prior to February 21, 1991, and documentation is kept on file supporting this claim.
- 7) Direct transfer to the burner. If hazardous waste is directly transferred from a transport vehicle to a BIF without the use of a storage unit, the owner or operator must comply with Section 726.211.
- b) Certification of precompliance. This subsection (b) corresponds with 40 CFR 266.103(b), under which USEPA required certain owners and operators to file a certification of precompliance by August 21, 1991. No similar filing with the Agency was required, so the Board did not incorporate the federal filing requirement into the Illinois regulations. This statement maintains structural parity with the federal regulations.
- c) Certification of compliance. The owner or operator must conduct emissions testing to document compliance with the emissions standards of Sections 726.204(b) through (e), 726.205, 726.206, and 726.207 and subsection (a)(5)(A)(iv) ~~of this Section~~ under the procedures prescribed by this subsection (c), except under extensions of time provided by subsection (c)(7) ~~of this Section~~. Based on the compliance test, the owner or operator must submit to the Agency, on or before August 21, 1992, a complete and accurate “certification of compliance” (under subsection (c)(4) ~~of this Section~~) with those emission standards establishing limits on the operating parameters specified in subsection (c)(1) ~~of this Section~~.
- 1) Limits on operating conditions. The owner or operator must establish limits on the following parameters based on operations during the compliance test (under procedures prescribed in subsection (c)(4)(D) ~~of this Section~~) or as otherwise specified and include these limits with the certification of compliance. The BIF must be operated in accordance with these operating limits and the applicable emissions standards of Sections 726.204(b) through (e), 726.205, 726.206, and 726.207 and subsection (a)(5)(A)(iv) ~~of this Section~~ at all times when there is hazardous waste in the unit.
  - A) Feed rate of total hazardous waste and (unless complying the Tier I or adjusted Tier I metals feed rate screening limits under Section 726.206(b) or (e)), pumpable hazardous waste;
  - B) Feed rate of each metal in the following feedstreams:
    - i) Total feedstreams, except that industrial furnaces which must comply with the alternative metals implementation approach under subsection (c)(3)(B) ~~of this Section~~ must specify limits on the concentration of each metal in collected PM in lieu of

feed rate limits for total feedstreams; and facilities that comply with Tier I or Adjusted Tier I metals feed rate screening limits may set their operating limits at the metal feed rate screening limits determined under ~~subsection Section~~ Section 726.206(b) or (e) ~~of this Section~~;

BOARD NOTE: Federal subsections 266.103(c)(1)(ii)(A)(1) and (c)(1)(ii)(A)(2) are condensed into subsection (c)(1)(B)(i).

- ii) Total hazardous waste feed (unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under Section 726.206(b) or (e)); and
  - iii) Total pumpable hazardous waste feed (unless complying with Tier I or Adjusted Tier I metals feed rate screening limits under Section 726.206(b) or (e));
- C) Total feed rate of total chlorine and chloride in total feed streams, except that facilities that comply with Tier I or Adjusted Tier I feed rate screening limits may set their operating limits at the total chlorine and chloride feed rate screening limits determined under Section 726.207(b)(1) or (e);
  - D) Total feed rate of ash in total feed streams, except that the ash feed rate for cement kilns and light-weight aggregate kilns is not limited;
  - E) CO concentration, and where required, HC concentration in stack gas. When complying with the CO controls of Section 726.204(b), the CO limit is 100 ppmv, and when complying with the HC controls of Section 726.204(c), the HC limit is 20 ppmv. When complying with the CO controls of Section 726.204(c), the CO limit is established based on the compliance test;
  - F) Maximum production rate of the device in appropriate units when producing normal product unless complying with Tier I or Adjusted Tier I feed rate screening limits for chlorine under Section 726.207(b)(1) or (e) and for all metals under Section ~~726.207(b)~~ 726.206(b) or (e), and the uncontrolled particulate emissions do not exceed the standard under Section 726.205;
  - G) Maximum combustion chamber temperature where the temperature measurement is as close to the combustion zone as possible and is upstream of any quench water injection, (unless complying with the Tier I adjusted Tier I metals feed rate screening limits under Section 726.206(b) or (e));

- H) Maximum flue gas temperature entering a PM control device (unless complying with Tier I or adjusted Tier I metals feed rate screening limits under Section 726.206(b) or (e) and the total chlorine and chloride feed rate screening limits under Section 726.207(b) or (e));
- I) For systems using wet scrubbers, including wet ionizing scrubbers (unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under Section 726.206(b) or (e) and the total chlorine and chloride feed rate screening limits under Section 726.207(b)(1) or (e)):
- i) Minimum liquid to flue gas ratio;
  - ii) Minimum scrubber blowdown from the system or maximum suspended solids content of scrubber water; and
  - iii) Minimum pH level of the scrubber water;
- J) For systems using venturi scrubbers, the minimum differential gas pressure across the venturi (unless complying the Tier I or adjusted Tier I metals feed rate screening limits under Section 726.206(b) or (e) and the total chlorine and chloride feed rate screening limits under Section 726.207(b)(1) or (e));
- K) For systems using dry scrubbers (unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under Section 726.206(b) or (e) and the total chlorine and chloride feed rate screening limits under Section 726.207(b)(1) or (e)):
- i) Minimum caustic feed rate; and
  - ii) Maximum flue gas flow rate;
- L) For systems using wet ionizing scrubbers or electrostatic precipitators (unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under Section 726.206(b) or (e) and the total chlorine and chloride feed rate screening limits under Section 726.207(b)(1) or (e)):
- i) Minimum electrical power in kVA to the precipitator plates; and
  - ii) Maximum flue gas flow rate;
- M) For systems using fabric filters (baghouses), the minimum pressure drop (unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under Section 726.206(b) or (e) and the total

chlorine and chloride feed rate screening limits under Section 726.207(b)(1) or (e)).

2) Prior notice of compliance testing. At least 30 days prior to the compliance testing required by subsection (c)(3) ~~of this Section~~, the owner or operator must notify the Agency and submit the following information:

A) General facility information including:

- i) USEPA facility ID number;
- ii) Facility name, contact person, telephone number, and address;
- iii) Person responsible for conducting compliance test, including company name, address, and telephone number, and a statement of qualifications;
- iv) Planned date of the compliance test;

B) Specific information on each device to be tested, including the following:

- i) A Description of BIF;
- ii) A scaled plot plan showing the entire facility and location of the BIF;
- iii) A description of the APCS;
- iv) Identification of the continuous emission monitors that are installed, including the following: CO monitor; Oxygen monitor; HC monitor, specifying the minimum temperature of the system, and, if the temperature is less than 150° C, an explanation of why a heated system is not used (see subsection (c)(5) ~~of this Section~~) and a brief description of the sample gas conditioning system;

BOARD NOTE: The Board has combined the text of 40 CFR 266.103(c)(2)(ii)(D)(1) through (c)(2)(ii)(D)(3) into this subsection (c)(2)(B)(iv) to comport with Illinois Administrative Code codification requirements.

- v) Indication of whether the stack is shared with another device that will be in operation during the compliance test; and
- vi) Other information useful to an understanding of the system design or operation; and

- C) Information on the testing planned, including a complete copy of the test protocol and QA/QC plan, and a summary description for each test providing the following information at a minimum:
    - i) Purpose of the test (e.g., demonstrate compliance with emissions of PM); and
    - ii) Planned operating conditions, including levels for each pertinent parameter specified in subsection (c)(1) ~~of this Section.~~
- 3) Compliance testing.
- A) General. Compliance testing must be conducted under conditions for which the owner or operator has submitted a certification of precompliance under subsection (b) ~~of this Section~~ and under conditions established in the notification of compliance testing required by subsection (c)(2) ~~of this Section~~. The owner or operator may seek approval on a case-by-case basis to use compliance test data from one unit in lieu of testing a similar on-site unit. To support the request, the owner or operator must provide a comparison of the hazardous waste burned and other feedstreams, and the design, operation, and maintenance of both the tested unit and the similar unit. The Agency must provide a written approval to use compliance test data in lieu of testing a similar unit if the Agency finds that the hazardous wastes, devices and the operating conditions are sufficiently similar, and the data from the other compliance test is adequate to meet the requirements of this subsection (c).
  - B) Special requirements for industrial furnaces that recycle collected PM. Owners and operators of industrial furnaces that recycle back into the furnace PM from the APCS must comply with one of the following procedures for testing to determine compliance with the metals standards of Section 726.206(c) or (d):
    - i) The special testing requirements prescribed in “Alternative Method for Implementing Metals Controls” in Appendix I to this Part;
    - ii) Stack emissions testing for a minimum of six hours each day while hazardous waste is burned during interim status. The testing must be conducted when burning normal hazardous waste for that day at normal feed rates for that day and when the APCS is operated under normal conditions. During interim status, hazardous waste analysis for metals content must be sufficient for the owner or operator to determine if changes in metals content affect the ability of the unit to meet

the metals emissions standards established under Section 726.206(c) or (d). Under this option, operating limits (under subsection (c)(1) ~~of this Section~~) must be established during compliance testing under this subsection (c)(3) only on the following parameters: feed rate of total hazardous waste; total feed rate of total chlorine and chloride in total feed streams; total feed rate of ash in total feed streams, except that the ash feed rate for cement kilns and light-weight aggregate kilns is not limited; CO concentration, and where required, HC concentration in stack gas; and maximum production rate of the device in appropriate units when producing normal product; or

BOARD NOTE: The Board has combined the text of 40 CFR 266.103(c)(3)(ii)(B)(1) through (c)(3)(ii)(B)(5) into this subsection (c)(3)(B)(ii) to comport with Illinois Administrative Code codification requirements.

- iii) Conduct compliance testing to determine compliance with the metals standards to establish limits on the operating parameters of subsection (c)(1) ~~of this Section~~ only after the kiln system has been conditioned to enable it to reach equilibrium with respect to metals fed into the system and metals emissions. During conditioning, hazardous waste and raw materials having the same metals content as will be fed during the compliance test must be fed at the feed rates that will be fed during the compliance test.
- C) Conduct of compliance testing.
- i) If compliance with all applicable emissions standards of Sections 726.204 through 726.207 is not demonstrated simultaneously during a set of test runs, the operating conditions of additional test runs required to demonstrate compliance with remaining emissions standards must be as close as possible to the original operating conditions.
  - ii) Prior to obtaining test data for purposes of demonstrating compliance with the applicable emissions standards of Sections 726.204 through 726.207 or establishing limits on operating parameters under this Section, the facility must operate under compliance test conditions for a sufficient period to reach steady-state operations. Industrial furnaces that recycle collected PM back into the furnace and that comply with subsection (c)(3)(B)(i) or (c)(3)(B)(ii) ~~of this Section~~, however, need not reach steady state conditions with

respect to the flow of metals in the system prior to beginning compliance testing for metals.

- iii) Compliance test data on the level of an operating parameter for which a limit must be established in the certification of compliance must be obtained during emissions sampling for the pollutants (i.e., metals, PM, HCl/chlorine gas, organic compounds) for which the parameter must be established as specified by subsection (c)(1) ~~of this Section~~.
- 4) Certification of compliance. Within 90 days of completing compliance testing, the owner or operator must certify to the Agency compliance with the emissions standards of Sections 726.204(b), (c) and (e); 726.205; 726.206; 726.207; and subsection (a)(5)(A)(iv) ~~of this Section~~. The certification of compliance must include the following information:
- A) General facility and testing information, including the following:
    - i) USEPA facility ID number;
    - ii) Facility name, contact person, telephone number, and address;
    - iii) Person responsible for conducting compliance testing, including company name, address, and telephone number, and a statement of qualifications;
    - iv) Dates of each compliance test;
    - v) Description of BIF tested;
    - vi) Person responsible for QA/QC, title and telephone number, and statement that procedures prescribed in the QA/QC plan submitted under Section 726.203(c)(2)(C) have been followed, or a description of any changes and an explanation of why changes were necessary;
    - vii) Description of any changes in the unit configuration prior to or during testing that would alter any of the information submitted in the prior notice of compliance testing under subsection (c)(2) ~~of this Section~~ and an explanation of why the changes were necessary;
    - viii) Description of any changes in the planned test conditions prior to or during the testing that alter any of the information submitted in the prior notice of compliance testing under subsection (c)(2) ~~of this Section~~ and an explanation of why the changes were necessary; and

- ix) The complete report on results of emissions testing.
- B) Specific information on each test, including the following:
- i) Purposes of test (e.g., demonstrate conformance with the emissions limits for PM, metals, HCl, chlorine gas, and CO);
  - ii) Summary of test results for each run and for each test including the following information: date of run; duration of run; time-weighted average and highest hourly rolling average CO level for each run and for the test; highest hourly rolling average HC level, if HC monitoring is required for each run and for the test; if dioxin and furan testing is required under Section 726.204(e), time-weighted average emissions for each run and for the test of chlorinated dioxin and furan emissions, and the predicted maximum annual average ground level concentration of the toxicity equivalency factor (defined in Section 726.200(i)); time-weighted average PM emissions for each run and for the test; time-weighted average HCl and chlorine gas emissions for each run and for the test; time-weighted average emissions for the metals subject to regulation under Section 726.206 for each run and for the test; and QA/QC results.

BOARD NOTE: The Board has combined the text of 40 CFR 266.103(c)(4)(ii)(B)(1) through (c)(4)(ii)(B)(9) into this subsection (c)(4)(B)(ii) to comport with Illinois Administrative Code codification requirements.

- C) Comparison of the actual emissions during each test with the emissions limits prescribed by Sections 726.204(b), (c), and (e); 726.205; 726.206; and 726.207 and established for the facility in the certification of precompliance under subsection (b) ~~of this Section~~.
- D) Determination of operating limits based on all valid runs of the compliance test for each applicable parameter listed in subsection (c)(1) ~~of this Section~~ using one of the following procedures:
- i) Instantaneous limits. A parameter must be measured and recorded on an instantaneous basis (i.e., the value that occurs at any time) and the operating limit specified as the time-weighted average during all runs of the compliance test.
  - ii) Hourly rolling average basis. The limit for a parameter must be established and continuously monitored on an hourly rolling average basis, as defined in Section 726.200(i). The operating limit for the parameter must be established based



on compliance test data as the average over all test runs of the highest hourly rolling average value for each run.

BOARD NOTE: The Board has combined the text of 40 CFR 266.103(c)(4)(iv)(B)(1) and (c)(4)(iv)(B)(2) into this subsection (c)(4)(D)(ii) and moved the text of 40 CFR 266.103(c)(4)(iv)(B)(1)(i) and (c)(4)(iv)(B)(1)(ii) to appear as definitions in Section 726.200(i) to comport with Illinois Administrative Code codification requirements.

- iii) Rolling average limits for carcinogenic metals (as defined in Section 726.200(i)) and lead. Feed rate limits for the carcinogenic metals and lead must be established either on an hourly rolling average basis as prescribed by subsection (c)(4)(D)(ii) ~~of this Section~~ or on (up to) a 24 hour rolling average basis. If the owner or operator elects to use an averaging period from two to 24 hours the following must occur: the feed rate of each metal must be limited at any time to ten times the feed rate that would be allowed on a hourly rolling average basis; the operating limit for the feed rate of each metal must be established based on compliance test data as the average over all test runs of the highest hourly rolling average feed rate for each run; and the continuous monitor and the rolling average for the selected averaging period are as defined in Section 726.200(i).

BOARD NOTE: The Board has combined the text of 40 C.F.R. 266.103(c)(4)(iv)(C)(1) and through (c)(4)(iv)(C)(3) are condensed into subsection ~~(e)(b)(C)(iii)~~ (c)(4)(D)(iii) and moved the text of 40 CFR 266.103(c)(4)(iv)(C)(2)(i) and (c)(4)(iv)(C)(2)(ii) to appear as definitions in Section 726.200(i) to comport with Illinois Administrative Code codification requirements.

- iv) Feed rate limits for metals, total chlorine and chloride, and ash. Feed rate limits for metals, total chlorine and chloride, and ash are established and monitored by knowing the concentration of the substance (i.e., metals, chloride/chlorine, and ash) in each feedstream and the flow rate of the feedstream. To monitor the feed rate of these substances, the flow rate of each feedstream must be monitored under the continuous monitoring requirements of subsections (c)(4)(D)(i) through (c)(4)(D)(iii) ~~of this Section~~.

- E) Certification of compliance statement. The following statement must accompany the certification of compliance:

“I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information and supporting documentation. Copies of all emissions tests, dispersion modeling results, and other information used to determine conformance with the requirements of 35 Ill. Adm. Code 726.203(c) are available at the facility and can be obtained from the facility contact person listed above. Based on my inquiry of the person or persons who manage the facility, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also acknowledge that the operating limits established pursuant to 35 Ill. Adm. Code 726.203(c)(4)(D) are enforceable limits at which the facility can legally operate during interim status until a revised certification of compliance is submitted.”

- 5) Special requirements for HC monitoring systems. When an owner or operator is required to comply with the HC controls provided by Section 726.204(c) or subsection (a)(5)(A)(iv) ~~of this Section~~, a conditioned gas monitoring system may be used in conformance with specifications provided in Appendix I to this Part provided that the owner or operator submits a certification of compliance without using extensions of time provided by subsection (c)(7) ~~of this Section~~.
- 6) Special operating requirements for industrial furnaces that recycle collected PM. Owners and operators of industrial furnaces that recycle back into the furnace PM from the APCS must do the following:
  - A) When complying with the requirements of subsection (c)(3)(B)(i) ~~of this Section~~, comply with the operating requirements prescribed in “Alternative Method to Implement the Metals Controls” in Appendix I to this Part; and
  - B) When complying with the requirements of subsection (c)(3)(B)(ii) ~~of this Section~~, comply with the operating requirements prescribed by that subsection.
- 7) Extensions of time.

- A) If the owner or operator does not submit a complete certification of compliance for all of the applicable emissions standards of Sections 726.204, 726.205, 726.206, and 726.207 by August 21, 1992, the owner or operator must do the following:
- i) Stop burning hazardous waste and begin closure activities under subsection (l) ~~of this Section~~ for the hazardous waste portion of the facility;
  - ii) Limit hazardous waste burning only for purposes of compliance testing (and pretesting to prepare for compliance testing) a total period of 720 hours for the period of time beginning August 21, 1992, submit a notification to the Agency by August 21, 1992 stating that the facility is operating under restricted interim status and intends to resume burning hazardous waste, and submit a complete certification of compliance by August 23, 1993; or
  - iii) Obtain a case-by-case extension of time under subsection (c)(7)(B) ~~of this Section~~.
- B) Case-by-case extensions of time. See Section 726.219.

BOARD NOTE: The Board moved the text of 40 CFR 266.103(c)(7)(ii) to appear as Section 726.219 to comport with Illinois Administrative Code codification requirements.

- 8) Revised certification of compliance. The owner or operator may submit at any time a revised certification of compliance (recertification of compliance) under the following procedures:
- A) Prior to submittal of a revised certification of compliance, hazardous waste must not be burned for more than a total of 720 hours under operating conditions that exceed those established under a current certification of compliance, and such burning must be conducted only for purposes of determining whether the facility can operate under revised conditions and continue to meet the applicable emissions standards of Sections 726.204, 726.205, 726.206, and 726.207;
  - B) At least 30 days prior to first burning hazardous waste under operating conditions that exceed those established under a current certification of compliance, the owner or operator must notify the Agency and submit the following information:
    - i) USEPA facility ID number, and facility name, contact person, telephone number, and address;

- ii) Operating conditions that the owner or operator is seeking to revise and description of the changes in facility design or operation that prompted the need to seek to revise the operating conditions;
    - iii) A determination that, when operating under the revised operating conditions, the applicable emissions standards of Sections 726.204, 726.205, 726.206, and 726.207 are not likely to be exceeded. To document this determination, the owner or operator must submit the applicable information required under subsection (b)(2) ~~of this Section~~; and
    - iv) Complete emissions testing protocol for any pretesting and for a new compliance test to determine compliance with the applicable emissions standards of Sections 726.204, 726.205, 726.206, and 726.207 when operating under revised operating conditions. The protocol must include a schedule of pre-testing and compliance testing. If the owner or operator revises the scheduled date for the compliance test, the owner or operator must notify the Agency in writing at least 30 days prior to the revised date of the compliance test;
  - C) Conduct a compliance test under the revised operating conditions and the protocol submitted to the Agency to determine compliance with the applicable emissions standards of Sections 726.204, 726.205, 726.206, and 726.207; and
  - D) Submit a revised certification of compliance under subsection (c)(4) ~~of this Section~~.
- d) Periodic Recertifications. The owner or operator must conduct compliance testing and submit to the Agency a recertification of compliance under provisions of subsection (c) ~~of this Section~~ within five years from submitting the previous certification or recertification. If the owner or operator seeks to recertify compliance under new operating conditions, the owner or operator must comply with the requirements of subsection (c)(8) ~~of this Section~~.
- e) Noncompliance with certification schedule. If the owner or operator does not comply with the interim status compliance schedule provided by subsections (b), (c), and (d) ~~of this Section~~, hazardous waste burning must terminate on the date that the deadline is missed, closure activities must begin under subsection (l) ~~of this Section~~, and hazardous waste burning must not resume except under an operating permit issued under 35 Ill. Adm. Code 703.232. For purposes of compliance with the closure provisions of subsection (l) ~~of this Section~~ and 35 Ill. Adm. Code 725.212(d)(2) and 725.213, the BIF has received “the known final volume of hazardous waste” on the date the deadline is missed.

- f) Start-up and shut-down. Hazardous waste (except waste fed solely as an ingredient under the Tier I (or adjusted Tier I) feed rate screening limits for metals and chloride/chlorine) must not be fed into the device during start-up and shut-down of the BIF, unless the device is operating within the conditions of operation specified in the certification of compliance.
- g) Automatic waste feed cutoff. During the compliance test required by subsection (c)(3) ~~of this Section~~ and upon certification of compliance under subsection (c) ~~of this Section~~, a BIF must be operated with a functioning system that automatically cuts off the hazardous waste feed when the applicable operating conditions specified in subsections (c)(1)(A) and (c)(1)(E) through (c)(1)(M) ~~of this Section~~ deviate from those established in the certification of compliance. In addition, the following must occur:
- 1) To minimize emissions of organic compounds, the minimum combustion chamber temperature (or the indicator of combustion chamber temperature) that occurred during the compliance test must be maintained while hazardous waste or hazardous waste residues remain in the combustion chamber, with the minimum temperature during the compliance test defined as either of the following:
    - A) If compliance with the combustion chamber temperature limit is based on an hourly rolling average, the minimum temperature during the compliance test is considered to be the average over all runs of the lowest hourly rolling average for each run; or
    - B) If compliance with the combustion chamber temperature limit is based on an instantaneous temperature measurement, the minimum temperature during the compliance test is considered to be the time-weighted average temperature during all runs of the test; and
  - 2) Operating parameters limited by the certification of compliance must continue to be monitored during the cutoff, and the hazardous waste feed must not be restarted until the levels of those parameters comply with the limits established in the certification of compliance.
- h) Fugitive emissions. Fugitive emissions must be controlled as follows:
- 1) By keeping the combustion zone totally sealed against fugitive emissions; or
  - 2) By maintaining the combustion zone pressure lower than atmospheric pressure; or
  - 3) By an alternative means of control that the owner or operator demonstrates provides fugitive emissions control equivalent to maintenance of combustion zone pressure lower than atmospheric pressure. Support for such demonstration must be included in the operating record.

- i) Changes. A BIF must cease burning hazardous waste when combustion properties, or feed rates of the hazardous waste, other fuels or industrial furnace feedstocks, or the BIF design or operating conditions deviate from the limits specified in the certification of compliance.
- j) Monitoring and Inspections.
  - 1) The owner or operator must monitor and record the following, at a minimum, while burning hazardous waste:
    - A) Feed rates and composition of hazardous waste, other fuels, and industrial furnace feed stocks and feed rates of ash, metals, and total chlorine and chloride as necessary to ensure conformance with the certification of precompliance or certification of compliance;
    - B) CO, oxygen, and, if applicable, HC on a continuous basis at a common point in the BIF downstream of the combustion zone and prior to release of stack gases to the atmosphere in accordance with the operating limits specified in the certification of compliance. CO, HC, and oxygen monitors must be installed, operated, and maintained in accordance with methods specified in Appendix I to this Part; and
    - C) Upon the request of the Agency, sampling and analysis of the hazardous waste (and other fuels and industrial furnace feed stocks as appropriate) and the stack gas emissions must be conducted to verify that the operating conditions established in the certification of precompliance or certification of compliance achieve the applicable standards of Sections 726.204, 726.205, 726.206, and 726.207.
  - 2) The BIF and associated equipment (pumps, valves, pipes, fuel storage tanks, etc.) must be subjected to thorough visual inspection when they contain hazardous waste, at least daily for leaks, spills, fugitive emissions, and signs of tampering.
  - 3) The automatic hazardous waste feed cutoff system and associated alarms must be tested at least once every seven days when hazardous waste is burned to verify operability, unless the owner or operator can demonstrate that weekly inspections will unduly restrict or upset operations and that less frequent inspections will be adequate. Support for such demonstration must be included in the operating record. At a minimum, operational testing must be conducted at least once every 30 days.
  - 4) These monitoring and inspection data must be recorded and the records must be placed in the operating log.
- k) Recordkeeping. The owner or operator must keep in the operating record of the facility all information and data required by this Section for five years.

- 1) Closure. At closure, the owner or operator must remove all hazardous waste and hazardous waste residues (including, but not limited to, ash, scrubber waters and scrubber sludges) from the BIF and must comply with 35 Ill. Adm. Code 725.211 through 725.215.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 726.212 Regulation of Residues**

A residue derived from the burning or processing of hazardous waste in a BIF is not excluded from the definition of a hazardous waste under 35 Ill. Adm. Code 721.104(b)(4), (b)(7), or (b)(8), unless the device and the owner or operator meet the following requirements:

- a) The device meets the following criteria:
  - 1) Boilers. Boilers must burn at least 50 percent coal on a total heat input or mass basis, whichever results in the greater mass feed rate of coal;
  - 2) Ore or mineral furnaces. Industrial furnaces subject to 35 Ill. Adm. Code 721.104(b)(7) must process at least 50 percent by weight of normal, nonhazardous raw materials;
  - 3) Cement kilns. Cement kilns must process at least 50 percent by weight of normal cement-production raw materials;
- b) The owner or operator demonstrates that the hazardous waste does not significantly affect the residue by demonstrating conformance with either of the following criteria:
  - 1) Comparison of waste-derived residue with normal residue. The waste-derived residue must not contain constituents listed in Appendix H to 35 Ill. Adm. Code 721 (toxic constituents) that could reasonably be attributable to the hazardous waste at concentrations significantly higher than in residue generated without burning or processing of hazardous waste, using the following procedure. Toxic compounds that could reasonably be attributable to burning or processing the hazardous waste (constituents of concern) include toxic constituents in the hazardous waste, and the organic compounds listed in Appendix H to 35 Ill. Adm. Code 721 that may be PICs. For polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans, analyses must be performed to determine specific congeners and homologues, and the results converted to 2,3,7,8-TCDD equivalent values using the procedure specified in section 4.0 of the documents referenced in Appendix I of this Part.
    - A) Normal residue. Concentrations of toxic constituents of concern in normal residue must be determined based on analyses of a minimum of 10 samples representing a minimum of 10 days of operation. Composite samples may be used to develop a sample for analysis

provided that the compositing period does not exceed 24 hours. The upper tolerance limit (at 95 percent confidence with a 95 percent proportion of the sample distribution) of the concentration in the normal residue must be considered the statistically-derived concentration in the normal residue. If changes in raw materials or fuels reduce the statistically-derived concentrations of the toxic constituents of concern in the normal residue, the statistically-derived concentrations must be revised or statistically-derived concentrations of toxic constituents in normal residue must be established for a new mode of operation with the new raw material or fuel. To determine the upper tolerance limit in the normal residue, the owner or operator must use statistical procedures prescribed in section 7.0 (Statistical Methodology for Bevill Residue Determinations) in federal appendix IX to 40 CFR 266 (Methods Manual for Compliance with the BIF Regulations), USEPA publication number EPA-454/R-92-019, incorporated by reference in 35 Ill. Adm. Code 720.111(b) (see Appendix I of this Part).

- B) Waste-derived residue. Waste derived residue must be sampled and analyzed as often as necessary to determine whether the residue generated during each 24-hour period has concentrations of toxic constituents that are higher than the concentrations established for the normal residue under subsection (b)(1)(A) ~~of this Section~~. If so, hazardous waste burning has significantly affected the residue and the residue is not excluded from the definition of "hazardous waste." Concentrations of toxic constituents in waste-derived residue must be determined based on analysis of one or more samples obtained over a 24-hour period. Multiple samples may be analyzed, and multiple samples may be taken to form a composite sample for analysis provided that the sampling period does not exceed 24 hours. If more than one sample is analyzed to characterize waste-derived residues generated over a 24-hour period, the concentration of each toxic constituent must be the arithmetic mean of the concentrations in the samples. No results can be disregarded; or
- 2) Comparison of waste-derived residue concentrations with health-based limits.
- A) Nonmetal constituents. The concentration of each nonmetal toxic constituent of concern (specified in subsection (b)(1) ~~of this Section~~) in the waste-derived residue must not exceed the health-based level specified in Appendix G of this Part, or the level of detection, whichever is higher. If a health-based limit for a constituent of concern is not listed in Appendix G of this Part, then a limit of 0.002 µg/kg or the level of detection (using appropriate analytical methods), whichever is higher, must be used. The levels specified in Appendix G of this Part (and the default level of 0.002 µg/kg or the



level of detection for constituents, as identified in Note 1 of Appendix G of this Part) are administratively stayed under the condition, for those constituents specified in subsection (b)(1) ~~of this Section~~, that the owner or operator complies with alternative levels defined as the land disposal restriction limits specified in 35 Ill. Adm. Code 728.143 and Table B to 35 Ill. Adm. Code 728 for F039 nonwastewaters. In complying with those alternative levels, if an owner or operator is unable to detect a constituent despite documenting use of the best good-faith efforts, as defined by applicable USEPA guidance and standards, the owner or operator is deemed to be in compliance for that constituent. Until USEPA develops new guidance or standards, the owner or operator may demonstrate such good-faith efforts by achieving a detection limit for the constituent that does not exceed an order of magnitude above (ten times) the level provided by 35 Ill. Adm. Code 728.143 and Table B to 35 Ill. Adm. Code 728 for F039 nonwastewater levels for polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans ~~(D/F)~~, analyses must be performed for total hexachlorodibenzo-p-dioxins, total hexachlorodibenzofurans, total pentachlorodibenzo-p-dioxins, total pentachlorodibenzofurans, total tetrachlorodibenzo-p-dioxins, and total tetrachlorodibenzofurans;

BOARD NOTE: In a note to corresponding 40 CFR 266.112(b)(2)(i), USEPA stated as follows:

The administrative stay, under the condition that the owner or operator complies with alternative levels defined as the land disposal restriction limits specified in 35 Ill. Adm. Code 728.143 for F039 nonwastewaters, remains in effect until further administrative action is taken and notice is published in the Federal Register and the Code of Federal Regulations.

Under Section 3006(b) and (g) of RCRA, 42 USC 6926(b) and (g), federal amendments do not go into effect in Illinois until the State of Illinois incorporates them into the State program. This applies unless the authority under which USEPA adopted the amendments is the Hazardous and Solid Waste Amendments of 1984 (HSWA), in which case the federal amendments become effective in Illinois on their federal effective date.

The federal regulations do not themselves define the phrase “appropriate analytical methods,” but USEPA did include a definition in its preamble discussion accompanying the rule. The Board directs attention to the following segment (at 70 Fed. Reg.

34538, 34541 (June 14, 2005)) for the purposes of subsections (b)(1)(C) and (b)(1)(D) ~~of this Section~~:

[T]wo primary considerations in selecting an appropriate method, which together serve as our general definition of an appropriate method [are the following] . . . :

1. Appropriate methods are reliable and accepted as such in the scientific community.
2. Appropriate methods generate effective data.

USEPA went on to further elaborate these two concepts and to specify other documents that might provide guidance.

- B) Metal constituents. The concentration of metals in an extract obtained using the TCLP test must not exceed the levels specified in Appendix G of this Part;
  - C) Sampling and analysis. Wastewater-derived residue must be sampled and analyzed as often as necessary to determine whether the residue generated during each 24-hour period has concentrations of toxic constituents that are higher than the health-based levels. Concentrations of concern in the wastewater-derived residue must be determined based on analysis of one or more samples obtained over a 24-hour period. Multiple samples may be analyzed, and multiple samples may be taken to form a composite for analysis provided that the sampling period does not exceed 24 hours. If more than one sample is analyzed to characterize waste-derived residues generated over a 24-hour period, the concentration of each toxic constituent is the arithmetic mean of the concentrations of the samples. No results can be disregarded; and
- c) Records sufficient to document compliance with the provisions of this Section must be retained until closure of the BIF unit. At a minimum, the following must be recorded:
- 1) Levels of constituents in Appendix H to 35 Ill. Adm. Code 721 that are present in waste-derived residues;
  - 2) If the waste-derived residue is compared with normal residue under subsection (b)(1) ~~of this Section~~:
    - A) The levels of constituents in Appendix H to 35 Ill. Adm. Code 721 that are present in normal residues; and
    - B) Data and information, including analyses of samples as necessary, obtained to determine if changes in raw materials or fuels would

reduce the concentration of toxic constituents of concern in the normal residue.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### Section 726.APPENDIX G Health-Based Limits for Exclusion of Waste-Derived Residues

NOTE 1: Under Section 726.212(b)(2)(A), the health-based concentration limits for Appendix H to 35 Ill. Adm. Code 721 constituents for which a health-based concentration is not provided below is  $2 \times 10^{-6}$  mg/kg (0.000002 mg/kg or 0.002  $\mu$ g/kg).

NOTE 2: The levels specified in this Section and the default level of 0.002  $\mu$ g/kg (0.000002 mg/kg) or the level of detection for constituents, as identified in Note 1, are administratively stayed under the condition, for those constituents specified in Section 726.212(b)(1), that the owner or operator complies with alternative levels defined as the land disposal restriction limits specified in 35 Ill. Adm. Code 728.143 and Table B to 35 Ill. Adm. Code 728 for F039 nonwastewaters. See Section 726.212(b)(2)(A).

#### Metals-TCLP Extract Concentration Limits

Constituent	CAS No.	Concentration limits (mg/L)
Antimony	7440-36-0	1.
Arsenic	7440-38-2	5.
Barium	7440-39-3	100.
Beryllium	7440-41-7	0.007
Cadmium	7440-43-9	1.
Chromium	7440-47-3	5.
Lead	7439-92-1	5.
Mercury	7439-97-6	0.2
Nickel	7440-02-0	70.
Selenium	7782-49-2	1.
Silver	7440-22-4	5.
Thallium	7440-28-0	7.

#### Nonmetals-Residue Concentration Limits

Constituent	CAS No.	Concentration limits for residues (mg/kg)
Acetonitrile	75-05-8	0.2
Acetophenone	98-86-2	4.
Acrolein	107-02-8	0.5
Acrylamide	79-06-1	0.0002
Acrylonitrile	107-13-1	0.0007

Aldrin	309-00-2	0.00002
Allyl alcohol	107-18-6	0.2
Aluminum phosphide	20859-73-8	0.01
Aniline	62-53-3	0.06
Barium cyanide	542-62-1	1.
Benz(a)anthracene	56-55-3	0.0001
Benzene	71-43-2	0.005
Benzidine	92-87-5	0.000001
Bis(2-chloroethyl) ether	111-44-4	0.0003
Bis(chloromethyl) ether	542-88-1	0.000002
Bis(2-ethylhexyl) phthalate	117-81-7	30.
Bromoform	75-25-2	0.7
Calcium cyanide	592-01-8	0.000001
Carbon disulfide	75-15-0	4.
Carbon tetrachloride	56-23-5	0.005
Chlordane	57-74-9	0.0003
Chlorobenzene	108-90-7	1.
Chloroform	67-66-3	0.06
Copper cyanide	544-92-3	0.2
Cresols (Cresylic acid)	1319-77-3	2.
Cyanogen	460-19-5	1.
DDT	50-29-3	0.001
Dibenz(a, h)-anthracene	53-70-3	0.000007
1,2-Dibromo-3-chloropropane	96-12-8	0.00002
p-Dichlorobenzene	106-46-7	<del>0.075</del> <u>0.075</u>
Dichlorodifluoromethane	75-71-8	7.
1,1-Dichloroethylene	75-35-4	0.005
2,4-Dichlorophenol	120-83-2	0.1
1,3-Dichloropropene	542-75-6	0.001
Dieldrin	60-57-1	0.00002
Diethyl phthalate	84-66-2	30.
Diethylstilbestrol	56-53-1	<del>0.0000001</del> <u>0.0000007</u>
Dimethoate	60-51-5	0.03
2,4-Dinitrotoluene	121-14-2	0.0005
Diphenylamine	122-39-4	0.9
1,2-Diphenylhydrazine	122-66-7	0.0005
Endosulfan	115-29-7	0.002
Endrin	72-20-8	0.0002
Epichlorohydrin	106-89-8	0.04
Ethylene dibromide	106-93-4	<del>0.0000001</del> <u>0.0000004</u>
Ethylene oxide	75-21-8	0.0003
Fluorine	7782-41-4	4.
Formic acid	64-18-6	70.

Heptachlor	76-44-8	0.00008
Heptachlor epoxide	1024-57-3	0.00004
Hexachlorobenzene	118-74-1	0.0002
Hexachlorobutadiene	87-68-3	0.005
Hexachlorocyclopentadiene	77-47-4	0.2
Hexachlorodibenzo-p-dioxins	19408-74-3	<del>0.0000001</del> <u>0.00000006</u>
Hexachloroethane	67-72-1	0.03
Hydrazine	302-01-1	0.0001
Hydrogen cyanide	74-90-8	0.00007
Hydrogen sulfide	7783-06-4	0.000001
Isobutyl alcohol	78-83-1	10.
Methomyl	16752-77-5	1.
Methoxychlor	72-43-5	0.1
3-Methylcholanthrene	56-49-5	0.00004
4,4'-Methylenebis (2-chloroaniline)	101-14-4	0.002
Methylene chloride	75-09-2	0.05
Methyl ethyl ketone (MEK)	78-93-3	2.
Methyl hydrazine	60-34-4	0.0003
Methyl parathion	298-00-0	0.02
Naphthalene	91-20-3	10.
Nickel cyanide	557-19-7	0.7
Nitric oxide	10102-43-9	4.
Nitrobenzene	98-95-3	0.02
N-Nitrosodi-n-butylamine	924-16-3	0.00006
N-Nitrosodiethylamine	55-18-5	0.000002
N-Nitroso-N-methylurea	684-93-5	0.0000001
N-Nitrosopyrrolidine	930-55-2	0.0002
Pentachlorobenzene	608-93-5	0.03
Pentachloronitrobenzene (PCNB)	82-68-8	0.1
Pentachlorophenol	87-86-5	1.
Phenol	108-95-2	1.
Phenylmercury acetate	62-38-4	0.003
Phosphine	7803-51-2	0.01
Polychlorinated biphenyls, N.O.S	1336-36-3	0.00005
Potassium cyanide	151-50-8	2.
Potassium silver cyanide	506-61-6	7.
Pronamide	23950-58-5	3.
Pyridine	110-86-1	0.04
Reserpine	50-55-5	0.00003
Selenourea	630-10-4	0.2
Silver cyanide	506-64-9	4.
Sodium cyanide	143-33-9	1.
Strychnine	57-24-9	0.01
1,2,4,5-Tetrachlorobenzene	95-94-3	0.01
1,1,2,2-tetrachloroethane	79-34-5	0.002

Tetrachloroethylene	127-18-4	0.7
2,3,4,6-Tetrachlorophenol	58-90-2	0.01
Tetraethyl lead	78-00-2	0.000004
Thiourea	62-56-6	0.0002
Toluene	108-88-3	10.
Toxaphene	8001-35-2	0.005
1,1,2-Trichloroethane	79-00-5	0.006
Trichloroethylene	79-01-6	0.005
Trichloromonofluoromethane	75-69-4	10.
2,4,5-Trichlorophenol	95-95-4	4.
2,4,6-Trichlorophenol	88-06-2	4.
Vanadium pentoxide	1314-62-1	0.7
Vinyl chloride	75-01-4	0.002

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### Section 726.TABLE A Exempt Quantities for Small Quantity Burner Exemption

TESH (m)	Allowable Hazardous Waste Burning Rate (gal/mo)	TESH	Allowable Hazardous Waste Burning Rate (gal/mo)
0 to 3.9	0	40.0 to 44.9	210
4.0 to 5.9	13	45.0 to 49.9	260
6.0 to 7.9	18	50.0 to 54.9	330
8.0 to 9.9	27	55.0 to 59.9	400
10.0 to 11.9	40	60.0 to 64.9	490
12.0 to 13.9	48	65.0 to 69.9	610
14.0 to 15.9	59	70.0 to 74.9	680
16.0 to 17.9	69	75.0 to 79.9	760
18.0 to 19.9	76	80.0 to 84.9	850
20.0 to 21.9	84	85.0 to 89.9	960
22.0 to 23.9	93	90.0 to 94.9	1,100
24.0 to 25.9	100	95.0 to 99.9	1,200
26.0 to 27.9	110	100.0 to 104.9	1,300
28.0 to 29.9	130	105.0 to 109.9	1,500
30.0 to 34.9	140	110.0 to 114.9	1,700
35.0 to 39.9	170	115.0 or greater	1,900

BOARD NOTE: Derived from table to 40 CFR 266.108(a)(1).

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

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

PART 727  
 STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE  
 FACILITIES OPERATING UNDER A RCRA STANDARDIZED PERMIT

## Section

727.100	General
727.110	General Facility Standards
727.130	Preparedness and Prevention
727.150	Contingency Plan and Emergency Procedures
727.170	Recordkeeping, Reporting, and Notifying
727.190	Releases from Solid Waste Management Units
727.210	Closure
727.240	Financial Requirements
727.270	Use and Management of Containers
727.290	Tank Systems
727.900	Containment Buildings

727.APPENDIX A Financial Assurance Forms (Repealed)

727.ILLUSTRATION A Letter of Chief Financial Officer: Financial Assurance for Facility Closure (Repealed)

727.ILLUSTRATION B Letter of Chief Financial Officer: Financial Assurance for Liability Coverage (Repealed)

## 727.APPENDIX B Correlation of State and Federal Provisions

727.TABLE A Correlation of Federal RCRA Standardized Permit Provisions to State Provisions

727.TABLE B Correlation of State RCRA Standardized Permit Provisions to Federal Provisions

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

**SOURCE:** Adopted in R06-16/R06-17/R06-18 at 31 Ill. Reg. 1146, effective December 20, 2006; amended in R07-5/R07-14 at 32 Ill. Reg. 12829, effective July 14, 2008; amended in R13-15 at 37 Ill. Reg. 17909, effective October 24, 2013; amended in R14-1/R14-2/R14-3 at 38 Ill. Reg. 7221, effective March 13, 2014; amended in R16-7 at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

**Section 727.130 Preparedness and Prevention**

- a) Applicability of this Section. This Section applies to the owner and operator of a facility that treats or stores hazardous waste under a RCRA standardized permit

pursuant to Subpart J of 35 Ill. Adm. Code 703, except as provided in Section 727.100(a)(2).

BOARD NOTE: Subsection (a) ~~of this Section~~ is derived from 40 CFR 267.30, as added at 70 Fed. Reg. 53420 (Sep. 8, 2005) (2015).

- b) General facility design and operation standards. The facility owner or operator must design, construct, maintain, and operate its facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water that could threaten human health or the environment.

BOARD NOTE: Subsection (b) is derived from 40 CFR 267.31 (2015).

- c) Required facility equipment. A facility must be equipped with all of the following, unless none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:

- 1) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;
- 2) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;
- 3) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and
- 4) Water at adequate volume and pressure to supply water hose streams, or foam-producing equipment, or automatic sprinklers, or water spray systems.

BOARD NOTE: Subsection (c) ~~of this Section~~ is derived from 40 CFR 267.32, as added at 70 Fed. Reg. 53420 (Sep. 8, 2005) (2015).

- d) Equipment testing and maintenance requirements. The facility owner or operator must test and maintain all required facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, as necessary, to assure its proper operation in time of emergency.

BOARD NOTE: Subsection (d) ~~of this Section~~ is derived from 40 CFR 267.33, as added at 70 Fed. Reg. 53420 (Sep. 8, 2005) (2015).



- e) Facility personnel access to communication equipment or an alarm system.
- 1) Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless the device is not required pursuant to Section 727.130(c).
  - 2) If just one employee is on the premises while the facility is operating, that person must have immediate access to a communication device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, unless the device is not required pursuant to Section 727.130(c).

BOARD NOTE: Subsection (e) ~~of this Section~~ is derived from 40 CFR 267.34, as added at 70 Fed. Reg. 53420 (Sep. 8, 2005) (2015).

- f) Ensuring access for personnel and equipment during emergencies. The facility owner or operator must maintain enough aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, as appropriate, considering the type of waste being stored or treated.

BOARD NOTE: Subsection (f) ~~of this Section~~ is derived from 40 CFR 267.35, as added at 70 Fed. Reg. 53420 (Sep. 8, 2005) (2015).

- g) Required emergency arrangements with local authorities.
- 1) The facility owner or operator must attempt to make the following arrangements, as appropriate, for the type of waste handled at its facility and the potential need for the services of these organizations:
    - A) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes;
    - B) Agreements designating primary emergency authority to a specific police and a specific fire department where more than one police and fire department might respond to an emergency, and agreements with any others to provide support to the primary emergency authority;
    - C) Agreements with State emergency response teams, emergency response contractors, and equipment suppliers; and

- D) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses that could result from fires, explosions, or releases at the facility.
- 2) If State or local authorities decline to enter into such arrangements, the facility owner or operator must document the refusal in the operating record.

BOARD NOTE: Subsection (g) ~~of this Section~~ is derived from 40 CFR 267.36, as added at 70 Fed. Reg. 53420 (Sep. 8, 2005) (2015).

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### Section 727.290 Tank Systems

- a) Applicability of this Section. This Section applies to the owner or operator of a facility that treats or stores hazardous waste in above-ground or on-ground tanks under a RCRA standardized permit pursuant to Subpart J of 35 Ill. Adm. Code 703, except as provided in Section 727.100(a)(2).
  - 1) A facility owner or operator does not have to meet the secondary containment requirements in subsection (f) ~~of this Section~~ if its tank systems do not contain free liquids and are situated inside a building with an impermeable floor. The owner or operator must demonstrate the absence or presence of free liquids in the stored or treated waste, using Method 9095B (Paint Filter Liquids Test) as described in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).
  - 2) The facility owner or operator does not have to meet the secondary containment requirements of subsection (f)(1) ~~of this Section~~ if its tank system, including sumps, as defined in 35 Ill. Adm. Code 720.110, is part of a secondary containment system to collect or contain releases of hazardous wastes.

BOARD NOTE: Subsection (a) ~~of this Section~~ is derived from 40 CFR 267.190, as added at 70 Fed. Reg. 53420 (Sep. 8, 2005) (2015).

- b) Required design and construction standards for new tank systems or components. The facility owner or operator must ensure that the foundation, structural support, seams, connections, and pressure controls (if applicable) are adequately designed and that the tank system has sufficient structural strength, compatibility with the wastes to be stored or treated, and corrosion protection to ensure that it will not collapse, rupture, or fail. The owner or operator must obtain a written assessment, reviewed and certified by an independent, qualified registered professional engineer, following 35 Ill. Adm. Code 702.126(d), attesting that the tank system

has sufficient structural integrity and is acceptable for the storing and treating of hazardous waste. This assessment must include, at a minimum, the following information:

- 1) Design standards for the construction of tanks or the ancillary equipment.
- 2) Hazardous characteristics of the wastes to be handled.
- 3) For new tank systems or components in which the external shell of a metal tank or any external metal component of the tank system will be in contact with the soil or with water, a determination by a corrosion expert of the following:
  - A) Factors affecting the potential for corrosion, such as the following:
    - i) Soil moisture content;
    - ii) Soil pH;
    - iii) Soil sulfides level;
    - iv) Soil resistivity;
    - v) Structure to soil potential;
    - vi) Existence of stray electric current; and
    - vii) Existing corrosion-protection measures (for example, coating, cathodic protection, etc.).
  - B) The type and degree of external corrosion protection needed to ensure the integrity of the tank system during the use of the tank system or component, consisting of one or more of the following:
    - i) Corrosion-resistant materials of construction (such as special alloys, fiberglass reinforced plastic, etc.);
    - ii) Corrosion-resistant coating (such as epoxy, fiberglass, etc.) with cathodic protection (for example, impressed current or sacrificial anodes); and
    - iii) Electrical isolation devices (such as insulating joints, flanges, etc.).
- 4) Design considerations to ensure that the following will occur:
  - A) Tank foundations will maintain the load of a full tank;

- B) Tank systems will be anchored to prevent flotation or dislodgment where the tank system is placed in a saturated zone, or is located within a seismic fault zone subject to the standards of Section 727.110(i)(1); and
- C) Tank systems will withstand the effects of frost heave.

BOARD NOTE: Subsection (b) ~~of this Section~~ is derived from 40 CFR 267.191, as added at 70 Fed. Reg. 53420 (Sep. 8, 2005) (2015).

- c) Handling and inspection procedures during installation of new tank systems.
  - 1) The facility owner or operator must ensure that it follows proper handling procedures to prevent damage to a new tank system during installation. Before placing a new tank system or component in use, an independent, qualified installation inspector or an independent, qualified, registered professional engineer, either of whom is trained and experienced in the proper installation of tank systems or components, must inspect the system for the presence of any of the following items:
    - A) Weld breaks;
    - B) Punctures;
    - C) Scrapes of protective coatings;
    - D) Cracks;
    - E) Corrosion; or
    - F) Other structural damage or inadequate construction or installation.
  - 2) The facility owner or operator must remedy all discrepancies before the tank system is placed in use.

BOARD NOTE: Subsection (c) ~~of this Section~~ is derived from 40 CFR 267.192, as added at 70 Fed. Reg. 53420 (Sep. 8, 2005) (2015).

- d) Testing requirements. The facility owner or operator must test all new tanks and ancillary equipment for tightness before you place them in use. If the owner or operator finds a tank system that is not tight, it must perform all repairs necessary to remedy the leaks in the system before it covers, encloses, or places the tank system into use.

BOARD NOTE: Subsection (d) ~~of this Section~~ is derived from 40 CFR 267.193, as added at 70 Fed. Reg. 53420 (Sep. 8, 2005) (2015).

- e) Installation requirements.
- 1) The facility owner or operator must support and protect ancillary equipment against physical damage and excessive stress due to settlement, vibration, expansion, or contraction.
  - 2) The facility owner or operator must provide the type and degree of corrosion protection recommended by an independent corrosion expert, based on the information provided pursuant to subsection (b)(3) ~~of this Section~~, to ensure the integrity of the tank system during use of the tank system. An independent corrosion expert must supervise the installation of a corrosion protection system that is field fabricated to ensure proper installation.
  - 3) The facility owner or operator must obtain, and keep at the facility, written statements by those persons required to certify the design of the tank system and to supervise the installation of the tank system as required in subsections (c), (d), (e)(1), and (e)(2) ~~of this Section~~. The written statement must attest that the tank system was properly designed and installed and that the owner or operator made repairs pursuant to subsections (c) and (d) ~~of this Section~~. These written statements must also include the certification statement as required in 35 Ill. Adm. Code 702.126(d).

BOARD NOTE: Subsection (e) ~~of this Section~~ is derived from 40 CFR 267.194, as added at 70 Fed. Reg. 53420 (Sep. 8, 2005) (2015).

- f) Secondary containment requirements. To prevent the release of hazardous waste or hazardous constituents to the environment, the owner or operator must provide secondary containment that meets the requirements of this subsection (f) for all new and existing tank systems.
- 1) Secondary containment systems must meet both of the following requirements:
    - A) It must be designed, installed, and operated to prevent any migration of wastes or accumulated liquid out of the system to any soil, groundwater, or surface water at any time during the use of the tank system; and
    - B) It must be capable of detecting and collecting releases and accumulated liquids until the collected material is removed.
  - 2) To meet the requirements of subsection (f)(1) ~~of this Section~~, secondary containment systems must meet all of the following minimum requirements:

- A) It must be constructed of or lined with materials that are compatible with the wastes to be placed in the tank system and must have sufficient strength and thickness to prevent failure owing to pressure gradients (including static head and external hydrological forces), physical contact with the waste to which it is exposed, climatic conditions, and the stress of daily operation (including stresses from nearby vehicular traffic);
- B) It must be placed on a foundation or base capable of providing support to the secondary containment system, resistance to pressure gradients above and below the system, and capable of preventing failure due to settlement, compression, or uplift;
- C) It must be provided with a leak-detection system that is designed and operated so that it will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours; and
- D) It must be sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. The facility owner or operator must remove spilled or leaked waste and accumulated precipitation from the secondary containment system within 24 hours, or as promptly as possible, to prevent harm to human health and the environment.

BOARD NOTE: Subsection (f) ~~of this Section~~ is derived from 40 CFR 267.195, as added at 70 Fed. Reg. 53420 (Sep. 8, 2005) (2015).

- g) Required devices for secondary containment and their design, operating, and installation requirements.
  - 1) Secondary containment for tanks must include one or more of the following features:
    - A) A liner (external to the tank);
    - B) A double-walled tank; and
    - C) An equivalent device; the owner or operator must maintain documentation of equivalency at the facility.
  - 2) An external liner system must fulfill the following requirements:
    - A) It must be designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

- B) It must be designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. The additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event;
  - C) It must be free of cracks or gaps; and
  - D) It must be designed and installed to surround the tank completely and to cover all surrounding earth likely to come into contact with the waste if the waste is released from the tanks (that is, it must be capable of preventing lateral as well as vertical migration of the waste).
- 3) A double-walled tank must fulfill the following requirements:
- A) It must be designed as an integral structure (that is, it must be an inner tank completely enveloped within an outer shell) so that any release from the inner tank is contained by the outer shell;
  - B) It must be protected, if constructed of metal, from both corrosion of the primary tank interior and of the external surface of the outer shell; and
  - C) It must be provided with a built-in continuous leak detection system capable of detecting a release within 24 hours.

BOARD NOTE: Subsection (g) ~~of this Section~~ is derived from 40 CFR 267.196, as added at 70 Fed. Reg. 53420 (Sep. 8, 2005) (2015).

- h) Requirements for ancillary equipment. The facility owner or operator must provide ancillary equipment with secondary containment (for example, trench, jacketing, double-walled piping, etc.) that meets the requirements of subsections (f)(1) and (f)(2) ~~of this Section~~, except for the following:
- 1) Above ground piping (exclusive of flanges, joints, valves, and other connections) that are visually inspected for leaks on a daily basis;
  - 2) Welded flanges, welded joints, and welded connections, that are visually inspected for leaks on a daily basis;
  - 3) Sealless or magnetic coupling pumps and sealless valves, that are visually inspected for leaks on a daily basis; and
  - 4) Pressurized above ground piping systems with automatic shut-off devices (for example, excess flow check valves, flow metering shutdown devices, loss of pressure actuated shut-off devices, etc.) that are visually inspected for leaks on a daily basis.

BOARD NOTE: Subsection (h) ~~of this Section~~ is derived from 40 CFR 267.197, as added at 70 Fed. Reg. 53420 (Sep. 8, 2005) (2015).

- i) General operating requirements for tank systems.
  - 1) The facility owner or operator must not place hazardous wastes or treatment reagents in a tank system if the substances could cause the tank, its ancillary equipment, or the containment system to rupture, leak, corrode, or otherwise fail.
  - 2) The facility owner or operator must use appropriate controls and practices to prevent spills and overflows from tank or containment systems. These include the following minimum requirements:
    - A) Spill prevention controls (for example, check valves, dry disconnect couplings, etc.);
    - B) Overfill prevention controls (for example, level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank, etc.); and
    - C) Sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind action or by precipitation.
  - 3) The facility owner or operator must comply with the requirements of subsection (k) ~~of this Section~~ if a leak or spill occurs in the tank system.

BOARD NOTE: Subsection (i) ~~of this Section~~ is derived from 40 CFR 267.198, as added at 70 Fed. Reg. 53420 (Sep. 8, 2005) (2015).

- j) Inspection requirements. The facility owner or operator must comply with the following requirements for scheduling, conducting, and documenting inspections:
  - 1) It must develop and follow a schedule and procedure for inspecting overfill controls;
  - 2) It must inspect the following at least once each operating day:
    - A) Aboveground portions of the tank system to detect corrosion or releases of waste;
    - B) Data gathered from monitoring and leak detection equipment (for example, pressure or temperature gauges, monitoring wells, etc.) to ensure that the tank system is being operated according to its design; and
    - C) The construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the



secondary containment system (for example, dikes) to detect erosion or signs of releases of hazardous waste (for example, wet spots, dead vegetation, etc.);

- 3) It must inspect cathodic protection systems, if present, according to, at a minimum, the following schedule to ensure that they are functioning properly:
  - A) It must confirm that the cathodic protection system is operating properly within six months after initial installation and annually thereafter; and
  - B) It must inspect or test all sources of impressed current, as appropriate, at least every other month; and
- 4) It must document, in the operating record of the facility, an inspection of those items in subsections (j)(1) through (j)(3) ~~of this Section~~.

BOARD NOTE: Subsection (j) ~~of this Section~~ is derived from 40 CFR 267.199, as added at 70 Fed. Reg. 53420 (Sep. 8, 2005) (2015).

- k) Required actions in case of a leak or a spill. If there has been a leak or a spill from a tank system or secondary containment system, or if either system is unfit for use, the facility owner or operator must remove the system from service immediately, and it must satisfy the following requirements:
  - 1) It must immediately stop the flow of hazardous waste into the tank system or secondary containment system and inspect the system to determine the cause of the release;
  - 2) It must remove the waste from the tank system or secondary containment system, as follows:
    - A) If the release was from the tank system, the owner or operator must, within 24 hours after detecting the leak, remove as much of the waste as is necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the tank system to be performed; or
    - B) If the material released was to a secondary containment system, the owner or operator must remove all released materials within 24 hours or as quickly as possible to prevent harm to human health and the environment;
  - 3) It must immediately conduct a visual inspection of the release and, based on that inspection, undertake the following actions:

- A) It must prevent further migration of the leak or spill to soils or surface water; and
  - B) It must remove, and properly dispose of, any visible contamination of the soil or surface water;
- 4) It must report any release to the environment, except as provided in subsection (k)(4)(A) ~~of this Section~~, to the Agency within 24 hours of its detection. If the owner or operator has reported the release to USEPA pursuant to federal 40 CFR 302, that report will satisfy this requirement, subject to the following exceptions:
- A) The facility owner or operator does not need to report on a leak or spill of hazardous waste if it fulfills the following conditions:
    - i) The spill was less than or equal to a quantity of one pound; and
    - ii) The facility owner or operator immediately contained and cleaned up the spill; and
  - B) Within 30 days of detection of a release to the environment, the owner or operator must submit a report to the Agency that contains the following information:
    - i) The likely route of migration of the release;
    - ii) The characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate, etc.);
    - iii) The results of any monitoring or sampling conducted in connection with the release (if available). If sampling or monitoring data relating to the release are not available within 30 days, the owner or operator must submit these data to the Agency as soon as they become available;
    - iv) The proximity to downgradient drinking water, surface water, and populated areas; and
    - v) A description of response actions taken or planned;
- 5) It must either close the system or make necessary repairs, as follows:
- A) Unless the owner or operator satisfies the requirements of subsections (k)(5)(B) and (k)(5)(C) ~~of this Section~~, it must close the tank system according to subsection (l) ~~of this Section~~;

- B) If the cause of the release was a spill that has not damaged the integrity of the system, the owner or operator may return the system to service as soon as it removes the released waste and makes any necessary repairs; or
  - C) If the cause of the release was a leak from the primary tank system into the secondary containment system, the owner or operator must repair the system before returning the tank system to service; and
- 6) If the owner or operator has made extensive repairs to a tank system in accordance with subsection (k)(5) ~~of this Section~~ (for example, installation of an internal liner; repair of a ruptured primary containment or secondary containment vessel, etc.), it may not return the tank system to service unless the repair is certified by an independent, qualified, registered, professional engineer in accordance with 35 Ill. Adm. Code 702.126(d), as follows:
- A) The engineer must certify that the repaired system is capable of handling hazardous wastes without release for the intended life of the system; and
  - B) The facility owner or operator must submit this certification to the Agency within seven days after returning the tank system to use.

BOARD NOTE: Subsection (k) ~~of this Section~~ is derived from 40 CFR 267.200; as added at 70 Fed. Reg. 53420 (Sep. 8, 2005) (2015).

- l) Requirements when the owner or operator stops operating the tank system. When the facility owner or operator close a tank system, it must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated soils, 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 tank systems must meet all of the requirements specified in Sections 727.210 and 727.240.

BOARD NOTE: Subsection (l) ~~of this Section~~ is derived from 40 CFR 267.201; as added at 70 Fed. Reg. 53420 (Sep. 8, 2005) (2015).

- m) Special requirements for ignitable or reactive wastes.
- 1) The facility owner or operator may not place ignitable or reactive waste in tank systems, unless any of the following three conditions are fulfilled:
    - A) The owner or operator treats, renders, or mixes the waste before or immediately after placement in the tank system so that the following is true:

- i) The owner or operator complies with Section 727.110(h)(2); and
  - ii) The resulting waste, mixture, or dissolved material no longer meets the definition of ignitable or reactive waste pursuant to 35 Ill. Adm. Code 721.121 or 721.123;
- B) The owner or operator stores or treats the waste 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 facility owner or operator uses the tank system solely for emergencies.
- 2) If the facility owner or operator stores or treats ignitable or reactive waste in a tank, it 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 on, as required in Tables 2–1 through 2–6 of “Flammable and Combustible Liquids Code,” NFPA 30, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

BOARD NOTE: Subsection (m) ~~of this Section~~ is derived from 40 CFR 267.202, as added at 70 Fed. Reg. 53420 (Sep. 8, 2005) (2015).

- n) Special requirements for incompatible wastes.
  - 1) A facility owner or operator may not place incompatible wastes or incompatible wastes and materials in the same tank system, unless it complies with Section 727.110(h)(2).
  - 2) A facility owner or operator may not place hazardous waste in a tank system that has not been decontaminated and that previously held an incompatible waste or material, unless it complies with Section 727.110(h)(2).

BOARD NOTE: Subsection (n) ~~of this Section~~ is derived from 40 CFR 267.203, as added at 70 Fed. Reg. 53420 (Sep. 8, 2005) (2015).

- o) Air emission standards. The facility owner or operator must manage all hazardous waste placed in a tank following the requirements of Subparts AA, BB, and CC of 35 Ill. Adm. Code 724. Under a RCRA standardized permit, the following control devices are permissible: a thermal vapor incinerator, a catalytic vapor incinerator, a flame, a boiler, a process heater, a condenser, or a carbon absorption unit.

BOARD NOTE: Subsection (o) ~~of this Section~~ is derived from 40 CFR 267.204, as added at 70 Fed. Reg. 53420 (Sep. 8, 2005) (2015).

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 727. ~~Appendix~~ APPENDIX A Financial Assurance Forms (Repealed)**

**~~Illustration~~ ILLUSTRATION A Letter of Chief Financial Officer: Financial Assurance for Facility Closure (Repealed)**

~~[The chief financial officer of an owner or operator of a facility with a RCRA standardized permit who uses a financial test to demonstrate financial assurance for that facility must complete a letter as specified in subsection (d)(6) of this Section. The letter must be worded as follows, except that instructions in brackets are to be deleted or replaced with the relevant information, including this introductory paragraph, as appropriate, and the brackets deleted:]~~

~~I am the chief financial officer of [insert the name and address of firm]. This letter is in support of this firm's use of the financial test to demonstrate financial assurance for closure costs, as specified in 35 Ill. Adm. Code 727.240. This firm qualifies for the financial test on the basis of having [insert the appropriate of the following statements: "a current rating for its senior unsecured debt of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A or Baa as issued by Moody's"; "a ratio of less than 1.50 comparing total liabilities to net worth"; or "a ratio of greater than 0.10 comparing the sum of net income plus depreciation, depletion and amortization, minus \$10 million, to total liabilities."]~~

~~This firm [insert the appropriate of the following statements: "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.~~

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

~~[If this firm qualifies on the basis of its bond rating fill in the requested information:] This firm has a rating of its senior unsecured debt of [insert the bond rating] "from" [insert the appropriate of the following entities: "Standard and Poor's" or "Moody's"].~~

~~[Complete Line 1. Total Liabilities below and then skip the remaining questions in the next section and resume completing the form at the section entitled "Obligations Covered by a Financial Test or Corporate Guarantee."]~~

~~[If this firm qualifies for the financial test on the basis of its ratio of liabilities to net worth, or sum of income, depreciation, depletion, and amortization to net worth, please complete the following section.]~~

\*1. Total Liabilities \$ \_\_\_\_\_

\*2. Net Worth \$ \_\_\_\_\_

\*3. Net Income \$ \_\_\_\_\_

\*4. Depreciation \$ \_\_\_\_\_

\*5. Depletion (if applicable) \$ \_\_\_\_\_

\*6. Amortization \$ \_\_\_\_\_

\*7. Sum of Lines 3, 4, 5 & 6 \$ \_\_\_\_\_

[If the above figures are taken directly from the most recent audited financial statements for this firm insert the following statement: "The above figures are taken directly from the most recent audited financial statements for this firm." If they are not, insert the following statement: "The following items are not taken directly from the firms most recent audited financial statements" [insert the numbers of the items and attach an explanation of how they were derived.]

[Complete the following calculations:]

8. Line 1 : Line 2 = \$ \_\_\_\_\_

9. Line 7 : Line 1 = \$ \_\_\_\_\_

Is Line 8 less than 1.5? Yes \_\_\_\_\_ No \_\_\_\_\_

Is Line 9 greater than 0.10? Yes \_\_\_\_\_ No \_\_\_\_\_

[If you did not answer Yes to either of these two questions, you cannot use the financial test and need not complete this letter. Instead, you must notify the permitting authority for the facility that you intend to establish alternate financial assurance as specified in 35 Ill. Adm. Code 727.240(d). The owner or operator must send this notice by certified mail within 90 days following the close of the owner's or operator's fiscal year for which the year end financial data show that the owner or operator no longer meets the requirements of Section 727.240(d). The owner or operator must also provide alternative financial assurance within 120 days after the end of such fiscal year.]

#### Obligations Covered by a Financial Test or Corporate Guarantee

[On the following lines list all obligations that are covered by a financial test or a corporate guarantee extended by your firm. You may add additional lines and leave blank entries that do not apply to your situation.]

Hazardous Waste Facility Name and ID	State	Closure	Post-Closure	Corrective Action
_____	_____	\$ _____	\$ _____	\$ _____
_____	_____	_____	_____	_____
Total Hazardous Waste Third Party Liability:				\$ _____

Municipal Solid Waste Landfill Facilities	State	Closure	Post-Closure	Corrective Action
_____	_____	\$ _____	\$ _____	\$ _____
_____	_____	_____	_____	_____
Total Municipal Solid Waste Landfill Facility Liability:				\$ _____

Underground Injection Control Facilities	State	Plugging Action
_____	_____	\$ _____
_____	_____	_____
Total Underground Injection Control Facility Liability:		\$ _____

Petroleum Underground Storage Tanks	State	Closure
_____	_____	\$ _____
_____	_____	_____
Total Petroleum Underground Storage Tank Liability:		\$ _____

PCB Storage Facility Name and ID	State	Closure
_____	_____	\$ _____
_____	_____	_____
Total PCB Storage Facility Liability:		\$ _____

Any financial assurance federally required under, or as part of an action taken under, the Comprehensive Environmental Response, Compensation, and Liability Act.

Site Name	State	Amount
_____	_____	\$ _____
_____	_____	_____
Total Financial Assurance under the Comprehensive Environmental Response, Compensation, and Liability Act:		\$ _____

Any other environmental obligations that are assured through a financial test.

Site Name	Amount	
_____	\$ _____	
_____	_____	
Total Other Environmental Obligations Assured:		\$ _____

\*10. Total of all amounts \$ \_\_\_\_\_

\*11. Line 10 + \$10,000,000 = \$ \_\_\_\_\_

\*12. Total Assets \$ \_\_\_\_\_

\*13. Intangible Assets \$ \_\_\_\_\_

\*14. Tangible Assets (Line 12 Line 13) \$ \_\_\_\_\_

\*15. Tangible Net Worth (Line 14 Line 1) \$ \_\_\_\_\_

\*16. Assets in the United States \$ \_\_\_\_\_

Is Line 15 less than Line 11? Yes \_\_\_\_\_ No \_\_\_\_\_

Is Line 16 no less than Line 10? Yes \_\_\_\_\_ No \_\_\_\_\_

[You must be able to answer Yes to both these questions to use the financial test for this facility.]

I hereby certify that the wording of this letter is identical to the wording specified in Appendix A, Illustration A to 35 Ill. Adm. Code 727, as such regulations were constituted on the date shown immediately below.

[Signature] \_\_\_\_\_

[Name] \_\_\_\_\_

[Title] \_\_\_\_\_

[Date] \_\_\_\_\_

[After completion, a signed copy of the form must be sent to the Agency. In addition, a signed copy must be sent to every authority who (1) requires a demonstration through a financial test for each of the other obligations in the letter that are assured through a financial test, or (2) accepts a guarantee for an obligation listed in this letter.]

BOARD NOTE: This Appendix A, Illustration A is derived from 40 CFR 267.151(a), as added at 70 Fed. Reg. 53420 (Sep. 8, 2005). The Board moved the corresponding federal provision to accommodate its unusual format. The Board intends that any citation to Section 727.240(1) or (1)(1) also include this added Appendix A, Illustration A, as applicable.

(Source: Repealed at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 727. ~~Appendix~~ APPENDIX A Financial Assurance Forms (Repealed)**

**~~Illustration~~ ILLUSTRATION B Letter of Chief Financial Officer: Financial Assurance for Liability Coverage (Repealed)**

[The chief financial officer of an owner or operator of a facility with a RCRA standardized permit who use a financial test to demonstrate financial assurance only for third party liability for that (or other RCRA standardized permit) facility (or those facilities) must complete a letter as specified in subsection (h)(6) of this Section. The letter must be worded as follows, except that instructions in brackets are to be deleted or replaced with the relevant information, including this introductory paragraph, as appropriate, and the brackets deleted:]



I am the chief financial officer of [insert the name and address of firm]. This letter is in support of this firm's use of the financial test to demonstrate financial assurance for third party liability, as specified in 35 Ill. Adm. Code 727.240. This firm qualifies for the financial test on the basis of having tangible net worth of at least \$10 million more than the amount of liability coverage and assets in the United States of at least the amount of liability coverage.

This firm [insert the appropriate of the following statements: "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

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

[Complete the following section.]

\*1. Total Assets \$ \_\_\_\_\_

\*2. Intangible Assets \$ \_\_\_\_\_

\*3. Tangible Assets (Line 1 Line 2) \$ \_\_\_\_\_

\*4. Total Liabilities \$ \_\_\_\_\_

5. Tangible Net Worth (Line 3 Line 4) \$ \_\_\_\_\_

\*6. Assets in the United States \$ \_\_\_\_\_

7. Amount of liability coverage \$ \_\_\_\_\_

Is Line 5 At least \$10 million greater than Line 7? Yes \_\_\_\_\_ No \_\_\_\_\_

Is Line 6 at least equal to Line 7? Yes \_\_\_\_\_ No \_\_\_\_\_

[You must be able to answer Yes to both these questions to use the financial test for this facility.]

I hereby certify that the wording of this letter is identical to the wording specified in Appendix A, Illustration B to 35 Ill. Adm. Code 727, as such regulations were constituted on the date shown immediately below.

[Signature] \_\_\_\_\_

[Name] \_\_\_\_\_

[Title] \_\_\_\_\_

[Date] \_\_\_\_\_

[After completion, a signed copy of the form must be sent to the permitting authority of the state or territory where the facility is (or facilities are) located.]

~~BOARD NOTE: This Appendix A, Illustration B is derived from 40 CFR 267.151(b), as added at 70 Fed. Reg. 53420 (Sep. 8, 2005). The Board moved the corresponding federal provision to accommodate its unusual format. The Board intends that any citation to Section 727.240(l) or (l)(2) also include this added Appendix A, Illustration B, as applicable.~~

(Source: Repealed at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## ~~Section 727.~~APPENDIX B Correlation of State and Federal Provisions

### ~~Table~~ TABLE A Correlation of Federal RCRA Standardized Permit Provisions to State Provisions

The following table sets forth the correlation of the federal RCRA Standardized Permit provisions with the State regulations. Where the structure of a State provision exactly parallels the corresponding federal provision from which it was derived, no expanded listing of the subsections appears. Where it was necessary to move or restructure the material from the federal regulations, a detailed listing of the location of each subsection appears.

40 CFR Provision	35 Ill. Adm. Code Provision
Subpart G of Part 124	Subpart G of Part 705
124.200	705.300(a)
124.201	705.300(b)
124.202	705.301(a)
124.203	705.301(b)
124.204	705.302(a)
124.205	705.302(b)
124.206	705.302(c)
124.207	705.303(a)
124.208	705.303(b)
124.209	705.303(c)
124.210	705.303(d)
124.211	705.304(a)
124.212	705.304(b)
124.213	705.304(c)
124.214	705.304(d)

40 CFR Provision	35 Ill. Adm. Code Provision
Subpart A of Part 267	727.100
267.1	727.100(a)
267.2	727.100(b)
267.3	727.100(c)
Subpart B of Part 267	727.110
267.10	727.110(a)
267.11	727.110(b)
267.12	727.110(c)
267.13	727.110(d)

267.14	727.110(e)
267.15	727.110(f)
267.16	727.110(g)
267.17	727.110(h)
267.18	727.110(i)
Subpart C of Part 267	727.130
267.30	727.130(a)
267.31	727.130(b)
267.32	727.130(c)
267.33	727.130(d)
267.34	727.130(e)
267.35	727.130(f)
Subpart D of Part 267	727.150
267.50	727.150(a)
267.51	727.150(b)
267.52	727.150(c)
267.53	727.150(d)
267.54	727.150(e)
267.55	727.150(f)
267.56	727.150(g)
267.57	727.150(h)
267.58	727.150(i)
Subpart E of Part 267	727.170
267.70	727.170(a)
267.71	727.170(b)
267.72	727.170(c)
267.73	727.170(d)
267.74	727.170(e)
267.75	727.170(f)
267.76	727.170(g)
Subpart F of Part 267	727.190
267.90	727.190(a)
267.91 (Reserved)	727.190(b)
267.92 (Reserved)	727.190(c)
267.93 (Reserved)	727.190(d)
267.94 (Reserved)	727.190(e)
267.95 (Reserved)	727.190(f)
267.96 (Reserved)	727.190(g)
267.97 (Reserved)	727.190(h)
267.98 (Reserved)	727.190(i)
267.99 (Reserved)	727.190(j)
267.100 (Reserved)	727.190(k)
267.101	727.190(l)
Subpart G of Part 267	727.210
267.110	727.210(a)

267.111	727.210(b)
267.112	727.210(c)
267.113	727.210(d)
267.114 (Reserved)	727.210(e)
267.115	727.210(f)
267.116	727.210(g)
267.117	727.210(h)
Subpart H of Part 267	727.240
267.140	727.240(a)
267.141	727.240(b)
267.142	727.240(c)
267.143	727.240(d)
267.143(f)(1)	727.240(d)(6)(A)
267.143(f)(1)	727.240(m)
267.143(f)(1)(i)	727.240(m)(1)
267.143(f)(1)(i)(A)	727.240(m)(1)(A)
267.143(f)(1)(i)(B)	727.240(m)(1)(B)
267.143(f)(1)(i)(C)	727.240(m)(1)(C)
267.143(f)(1)(ii)	727.240(m)(2)
267.143(f)(1)(ii)(A)	727.240(m)(2)(A)
267.143(f)(1)(ii)(B)	727.240(m)(2)(B)
267.143(f)(1)(iii)	727.240(m)(3)
267.143(f)(2)	727.240(d)(6)(B)
267.143(f)(2)	727.240(n)
267.143(f)(2)(i)	727.240(n)(1)
267.143(f)(2)(i)(A)	727.240(n)(1)(A)
267.143(f)(2)(i)(A)(I)	727.240(n)(1)(A)(i)
267.143(f)(2)(i)(A)(I)	727.240(n)(1)(E)
267.143(f)(2)(i)(A)(I)(i)	727.240(n)(1)(E)(i)
267.143(f)(2)(i)(A)(I)(ii)	727.240(n)(1)(E)(ii)
267.143(f)(2)(i)(A)(I)(iii)	727.240(n)(1)(E)(iii)
267.143(f)(2)(i)(A)(I)(iv)	727.240(n)(1)(E)(iv)
267.143(f)(2)(i)(A)(I)(v)	727.240(n)(1)(E)(v)
267.143(f)(2)(i)(A)(I)(vi)	727.240(n)(1)(E)(vi)
267.143(f)(2)(i)(A)(I)(vii)	727.240(n)(1)(E)(vii)
267.143(f)(2)(i)(A)(2)	727.240(n)(1)(A)(ii)
267.143(f)(2)(i)(B)	727.240(n)(1)(B)
267.143(f)(2)(i)(C)	727.240(n)(1)(C)
267.143(f)(2)(i)(D)	727.240(n)(1)(D)
267.143(f)(2)(ii)	727.240(n)(2)
267.143(f)(2)(iii)	727.240(n)(3)
267.143(f)(2)(iv)	727.240(n)(4)
267.143(f)(2)(iv)(A)	727.240(n)(4)(A)
267.143(f)(2)(iv)(B)	727.240(n)(4)(B)
267.143(f)(2)(v)	727.240(n)(5)

267.143(f)(2)(v)(A)	727.240(n)(5)(A)
267.143(f)(2)(v)(B)	727.240(n)(5)(B)
267.143(f)(2)(vi)	727.240(n)(6)
267.143(f)(3)	727.240(d)(6)(C)
267.143(f)(3)	727.240(o)
267.143(f)(3)(i)	727.240(o)(1)
267.143(f)(3)(i)(A)	727.240(o)(1)(A)
267.143(f)(3)(i)(B)	727.240(o)(1)(B)
267.143(f)(3)(ii)	727.240(o)(2)
267.143(f)(3)(iii)	727.240(o)(3)
267.144 (Reserved)	727.240(e)
267.145 (Reserved)	727.240(f)
267.146 (Reserved)	727.240(g)
267.147	727.240(h)
267.147(f)(2)	727.240(h)(6)(B)
267.147(f)(2)	727.240(p)
267.147(f)(2)(i)	727.240(p)(1)
267.147(f)(2)(i)(A)	727.240(p)(1)(A)
267.147(f)(2)(i)(B)	727.240(p)(1)(B)
267.147(f)(2)(i)(C)	727.240(p)(1)(C)
267.147(f)(2)(ii)	727.240(p)(2)
267.147(f)(2)(iii)	727.240(p)(3)
267.147(f)(2)(iv)	727.240(p)(4)
267.147(f)(2)(iv)(A)	727.240(p)(4)(A)
267.147(f)(2)(iv)(B)	727.240(p)(4)(B)
267.147(f)(2)(v)	727.240(p)(5)
267.147(f)(2)(v)(A)	727.240(p)(5)(A)
267.147(f)(2)(v)(B)	727.240(p)(5)(B)
267.147(f)(2)(vi)	727.240(p)(6)
267.147(g)(2)	727.240(h)(7)(B)
267.147(g)(2)	727.240(q)
267.147(g)(2)(i)	727.240(q)(1)
267.147(g)(2)(ii)	727.240(q)(2)
267.147(g)(2)(ii)(A)	727.240(q)(2)(A)
267.147(g)(2)(ii)(B)	727.240(q)(2)(B)
267.148	727.240(i)
267.149 (Reserved)	727.240(j)
267.150	727.240(k)
267.151	727.240(l)
— 267.151(a)	— 727.240(l)(1)
— 267.151(a)	<b>Appendix A, Illustration A</b>
— 267.151(b)	— 727.240(l)(2)
— 267.151(b)	<b>Appendix A, Illustration B</b>
Subpart I of Part 267	727.270
267.170	727.270(a)

267.171	727.270(b)
267.172	727.270(c)
267.173	727.270(d)
267.174	727.270(e)
267.175	727.270(f)
267.176	727.270(g)
267.177	727.270(h)
Subpart J of Part 267	727.290
267.190	727.290(a)
267.191	727.290(b)
267.192	727.290(c)
267.193	727.290(d)
267.194	727.290(e)
267.195	727.290(f)
267.196	727.290(g)
267.197	727.290(h)
267.198	727.290(i)
267.199	727.290(j)
267.200	727.290(k)
267.201	727.290(l)
267.202	727.290(m)
267.203	727.290(n)
267.204	727.290(o)
Subpart K of Part 267 (Reserved)	None
Subpart L of Part 267 (Reserved)	None
Subpart M of Part 267 (Reserved)	None
Subpart N of Part 267 (Reserved)	None
Subpart O of Part 267 (Reserved)	None
Subpart P of Part 267 (Reserved)	None
Subpart Q of Part 267 (Reserved)	None
Subpart R of Part 267 (Reserved)	None
Subpart S of Part 267 (Reserved)	None
Subpart T of Part 267 (Reserved)	None
Subpart U of Part 267 (Reserved)	None
Subpart V of Part 267 (Reserved)	None
Subpart W of Part 267 (Reserved)	None
Subpart X of Part 267 (Reserved)	None
Subpart Y of Part 267 (Reserved)	None
Subpart Z of Part 267 (Reserved)	None
Subpart AA of Part 267 (Reserved)	None
Subpart BB of Part 267 (Reserved)	None
Subpart CC of Part 267 (Reserved)	None
Subpart DD of Part 267	727.900
267.1100	727.900(a)
267.1101	727.900(b)

267.1102	727.900(c)
267.1103	727.900(d)
267.1104	727.900(e)
267.1105	727.900(f)
267.1106	727.900(g)
267.1107	727.900(h)
267.1108	727.900(i)

40 CFR Provision	35 Ill. Adm. Code Provision
270.67	703.238
Subpart J of Part 270	Subpart J of Part 703
270.250	703.350(a)
270.255	703.350(b)
270.260	703.350(c)
270.270	703.351(a)
270.275	703.351(b)
270.280	703.351(c)
270.290	703.352(a)
270.300	703.352(b)
270.305	703.352(c)
270.310	703.352(d)
270.315	703.352(e)
270.320	703.353

BOARD NOTE: The Board added Appendix B, Table A for the convenience of USEPA, the Agency, and the regulated community. It is not directly derived from any federal provision. It is intended not to have any substantive effect on implementation of the RCRA Standardized Permit rules.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## **Section 727. ~~Appendix~~ APPENDIX B Correlation of State and Federal Provisions**

### **Table ~~TABLE~~ B Correlation of State RCRA Standardized Permit Provisions to Federal Provisions**

The following table sets forth the correlation of the State RCRA Standardized Permit provisions with the federal regulations. Where the structure of a State provision exactly parallels the corresponding federal provision from which it was derived, no expanded listing of the subsections appears. Where it was necessary to move or restructure the material from the federal regulations, a detailed listing of the location of each subsection appears.

35 Ill. Adm. Code Provision	40 CFR Provision
703.238	270.67
Subpart J of Part 703	Subpart J of Part 270
703.350(a)	270.250

703.350(b)	270.255
703.350(c)	270.260
703.351(a)	270.270
703.351(b)	270.275
703.351(c)	270.280
703.352(a)	270.290
703.352(b)	270.300
703.352(c)	270.305
703.352(d)	270.310
703.352(e)	270.315
703.353	270.320

35 Ill. Adm. Code Provision	40 CFR Provision
Subpart G of Part 705	Subpart G of Part 124
705.300(a)	124.200
705.300(b)	124.201
705.301(a)	124.202
705.301(b)	124.203
705.302(a)	124.204
705.302(b)	124.205
705.302(c)	124.206
705.303(a)	124.207
705.303(b)	124.208
705.303(c)	124.209
705.303(d)	124.210
705.304(a)	124.211
705.304(b)	124.212
705.304(c)	124.213
705.304(d)	124.214

35 Ill. Adm. Code Provision	40 CFR Provision
727.100	Subpart A of Part 267
727.100(a)	267.1
727.100(b)	267.2
727.100(c)	267.3
727.110	Subpart B of Part 267
727.110(a)	267.10
727.110(b)	267.11
727.110(c)	267.12
727.110(d)	267.13
727.110(e)	267.14
727.110(f)	267.15
727.110(g)	267.16
727.110(h)	267.17
727.110(i)	267.18



727.130	Subpart C of Part 267
727.130(a)	267.30
727.130(b)	267.31
727.130(c)	267.32
727.130(d)	267.33
727.130(e)	267.34
727.130(f)	267.35
727.150	Subpart D of Part 267
727.150(a)	267.50
727.150(b)	267.51
727.150(c)	267.52
727.150(d)	267.53
727.150(e)	267.54
727.150(f)	267.55
727.150(g)	267.56
727.150(h)	267.57
727.150(i)	267.58
727.170	Subpart E of Part 267
727.170(a)	267.70
727.170(b)	267.71
727.170(c)	267.72
727.170(d)	267.73
727.170(e)	267.74
727.170(f)	267.75
727.170(g)	267.76
727.190	Subpart F of Part 267
727.190(a)	267.90
727.190(b)	267.91 (Reserved)
727.190(c)	267.92 (Reserved)
727.190(d)	267.93 (Reserved)
727.190(e)	267.94 (Reserved)
727.190(f)	267.95 (Reserved)
727.190(g)	267.96 (Reserved)
727.190(h)	267.97 (Reserved)
727.190(i)	267.98 (Reserved)
727.190(j)	267.99 (Reserved)
727.190(k)	267.100 (Reserved)
727.190(l)	267.101
727.210	Subpart G of Part 267
727.210(a)	267.110
727.210(b)	267.111
727.210(c)	267.112
727.210(d)	267.113
727.210(e)	267.114 (Reserved)
727.210(f)	267.115

727.210(g)	267.116
727.210(h)	267.117
727.240	Subpart H of Part 267
727.240(a)	267.140
727.240(b)	267.141
727.240(c)	267.142
727.240(d)	267.143
<del>727.240(d)(6)(A)</del>	<del>267.143(f)(1)</del>
<del>727.240(d)(6)(B)</del>	<del>267.143(f)(2)</del>
727.240(e)	267.144 (Reserved)
727.240(f)	267.145 (Reserved)
727.240(g)	267.146 (Reserved)
727.240(h)	267.147
<del>727.240(h)(6)(B)</del>	<del>267.147(f)(2)</del>
<del>727.240(h)(7)(B)</del>	<del>267.147(g)(2)</del>
727.240(i)	267.148
727.240(j)	267.149 (Reserved)
727.240(k)	267.150
727.240(l)	267.151
727.240(l)(1)	267.151(a)
727.240(l)(2)	267.151(b)
727.240(m)	267.143(f)(1)
727.240(m)(1)	267.143(f)(1)(i)
727.240(m)(1)(A)	267.143(f)(1)(i)(A)
727.240(m)(1)(B)	267.143(f)(1)(i)(B)
727.240(m)(1)(C)	267.143(f)(1)(i)(C)
727.240(m)(2)	267.143(f)(1)(ii)
727.240(m)(2)(A)	267.143(f)(1)(ii)(A)
727.240(m)(2)(B)	267.143(f)(1)(ii)(B)
727.240(m)(3)	267.143(f)(1)(iii)
727.240(n)	267.143(f)(2)
727.240(n)(1)	267.143(f)(2)(i)
727.240(n)(1)(A)	267.143(f)(2)(i)(A)
727.240(n)(1)(A)(i)	267.143(f)(2)(i)(A)(I)
727.240(n)(1)(A)(ii)	267.143(f)(2)(i)(A)(2)
727.240(n)(1)(B)	267.143(f)(2)(i)(B)
727.240(n)(1)(C)	267.143(f)(2)(i)(C)
727.240(n)(1)(D)	267.143(f)(2)(i)(D)
727.240(n)(1)(E)	267.143(f)(2)(i)(A)(I)
727.240(n)(1)(E)(i)	267.143(f)(2)(i)(A)(I)(i)
727.240(n)(1)(E)(ii)	267.143(f)(2)(i)(A)(I)(ii)
727.240(n)(1)(E)(iii)	267.143(f)(2)(i)(A)(I)(iii)
727.240(n)(1)(E)(iv)	267.143(f)(2)(i)(A)(I)(iv)
727.240(n)(1)(E)(v)	267.143(f)(2)(i)(A)(I)(v)
727.240(n)(1)(E)(vi)	267.143(f)(2)(i)(A)(I)(vi)

727.240(n)(2)	267.143(f)(2)(ii)
727.240(n)(3)	267.143(f)(2)(iii)
727.240(n)(4)	267.143(f)(2)(iv)
727.240(n)(4)(A)	267.143(f)(2)(iv)(A)
727.240(n)(4)(B)	267.143(f)(2)(iv)(B)
727.240(n)(5)	267.143(f)(2)(v)
727.240(n)(5)(A)	267.143(f)(2)(v)(A)
727.240(n)(5)(B)	267.143(f)(2)(v)(B)
727.240(n)(6)	267.143(f)(2)(vi)
727.240(o)	<del>267.143(f)(3)</del> 267.143(g)(3)
727.240(o)(1)	<del>267.143(f)(3)(i)</del> 267.143(g)(3)(i)
727.240(o)(1)(A)	267.143(f)(3)(i)(A) <del>267.143(g)(3)(i)(A)</del>
727.240(o)(1)(B)	267.143(f)(3)(i)(B) <del>267.143(g)(3)(i)(B)</del>
727.240(o)(2)	<del>267.143(f)(3)(ii)</del> 267.143(g)(3)(ii)
727.240(o)(3)	<del>267.143(f)(3)(iii)</del> 267.143(g)(3)(iii)
727.240(p)	267.147(f)(2)
727.240(p)(1)	267.147(f)(2)(i)
727.240(p)(1)(A)	267.147(f)(2)(i)(A)
727.240(p)(1)(B)	267.147(f)(2)(i)(B)
727.240(p)(1)(C)	267.147(f)(2)(i)(C)
727.240(p)(2)	267.147(f)(2)(ii)
727.240(p)(3)	267.147(f)(2)(iii)
727.240(p)(4)	267.147(f)(2)(iv)
727.240(p)(4)(A)	267.147(f)(2)(iv)(A)
727.240(p)(4)(B)	267.147(f)(2)(iv)(B)
727.240(p)(5)	267.147(f)(2)(v)
727.240(p)(5)(A)	267.147(f)(2)(v)(A)
727.240(p)(5)(B)	267.147(f)(2)(v)(B)
727.240(p)(6)	267.147(f)(2)(vi)
727.240(q)	267.147(g)(2)
727.240(q)(1)	267.147(g)(2)(i)
727.240(q)(2)	267.147(g)(2)(ii)
727.240(q)(2)(A)	267.147(g)(2)(ii)(A)
727.240(q)(2)(B)	267.147(g)(2)(ii)(B)
727.270	Subpart I of Part 267
727.270(a)	267.170
727.270(b)	267.171
727.270(c)	267.172
727.270(d)	267.173
727.270(e)	267.174
727.270(f)	267.175
727.270(g)	267.176
727.270(h)	267.177

727.290	Subpart J of Part 267
727.290(a)	267.190
727.290(b)	267.191
727.290(c)	267.192
727.290(d)	267.193
727.290(e)	267.194
727.290(f)	267.195
727.290(g)	267.196
727.290(h)	267.197
727.290(i)	267.198
727.290(j)	267.199
727.290(k)	267.200
727.290(l)	267.201
727.290(m)	267.202
727.290(n)	267.203
727.290(o)	267.204
727.900	Subpart DD of Part 267
727.900(a)	267.1100
727.900(b)	267.1101
727.900(c)	267.1102
727.900(d)	267.1103
727.900(e)	267.1104
727.900(f)	267.1105
727.900(g)	267.1106
727.900(h)	267.1107
727.900(i)	267.1108
<del>Appendix A, Illustration A</del>	<del>— 267.151(a)</del>
<del>Appendix A, Illustration B</del>	<del>— 267.151(b)</del>

BOARD NOTE: The Board added Appendix B, Table B for the convenience of USEPA, the Agency, and the regulated community. It is not directly derived from any federal provision. It is intended not to have any substantive effect on implementation of the RCRA Standardized Permit rules.

(Source: Amended at 40 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

SUBPART A: GENERAL

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

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

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

SUBPART C: PROHIBITION ON LAND DISPOSAL

Section	
728.120	Waste-Specific Prohibitions: Dyes and Pigments Production Wastes
728.130	Waste-Specific Prohibitions: Wood Preserving Wastes
728.131	Waste-Specific Prohibitions: Dioxin-Containing Wastes
728.132	Waste-Specific Prohibitions: Soils Exhibiting the Toxicity Characteristic for Metals and Containing PCBs
728.133	Waste-Specific Prohibitions: Chlorinated Aliphatic Wastes
728.134	Waste-Specific Prohibitions: Toxicity Characteristic Metal Wastes
728.135	Waste-Specific Prohibitions: Petroleum Refining Wastes
728.136	Waste-Specific Prohibitions: Inorganic Chemical Wastes
728.137	Waste-Specific Prohibitions: Ignitable and Corrosive Characteristic Wastes Whose Treatment Standards Were Vacated
728.138	Waste-Specific Prohibitions: Newly-Identified Organic Toxicity Characteristic Wastes and Newly-Listed Coke By-Product and Chlorotoluene Production Wastes
728.139	Waste-Specific Prohibitions: Spent Aluminum Potliners and Carbamate Wastes

## SUBPART D: TREATMENT STANDARDS

## Section

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

## SUBPART E: PROHIBITIONS ON STORAGE

## Section

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

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

**SOURCE:** Adopted in R87-5 at 11 Ill. Reg. 19354, effective November 12, 1987; amended in R87-39 at 12 Ill. Reg. 13046, effective July 29, 1988; amended in R89-1 at 13 Ill. Reg. 18403,

effective November 13, 1989; amended in R89-9 at 14 Ill. Reg. 6232, effective April 16, 1990; amended in R90-2 at 14 Ill. Reg. 14470, effective August 22, 1990; amended in R90-10 at 14 Ill. Reg. 16508, effective September 25, 1990; amended in R90-11 at 15 Ill. Reg. 9462, effective June 17, 1991; amended in R90-11 at 15 Ill. Reg. 11937, effective August 12, 1991; amendment withdrawn at 15 Ill. Reg. 14716, October 11, 1991; amended in R91-13 at 16 Ill. Reg. 9619, effective June 9, 1992; amended in R92-10 at 17 Ill. Reg. 5727, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20692, effective November 22, 1993; amended in R93-16 at 18 Ill. Reg. 6799, effective April 26, 1994; amended in R94-7 at 18 Ill. Reg. 12203, effective July 29, 1994; amended in R94-17 at 18 Ill. Reg. 17563, effective November 23, 1994; amended in R95-6 at 19 Ill. Reg. 9660, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 11100, effective August 1, 1996; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 783, effective December 16, 1997; amended in R98-12 at 22 Ill. Reg. 7685, effective April 15, 1998; amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. 17706, effective September 28, 1998; amended in R98-21/R99-2/R99-7 at 23 Ill. Reg. 1964, effective January 19, 1999; amended in R99-15 at 23 Ill. Reg. 9204, effective July 26, 1999; amended in R00-13 at 24 Ill. Reg. 9623, effective June 20, 2000; amended in R01-3 at 25 Ill. Reg. 1296, effective January 11, 2001; amended in R01-21/R01-23 at 25 Ill. Reg. 9181, effective July 9, 2001; amended in R02-1/R02-12/R02-17 at 26 Ill. Reg. 6687, effective April 22, 2002; amended in R03-18 at 27 Ill. Reg. 13045, effective July 17, 2003; amended in R05-8 at 29 Ill. Reg. 6049, effective April 13, 2005; amended in R06-5/R06-6/R06-7 at 30 Ill. Reg. 3800, effective February 23, 2006; amended in R06-16/R06-17/R06-18 at 31 Ill. Reg. 1254, effective December 20, 2006; amended in R07-5/R07-14 at 32 Ill. Reg. 12840, effective July 14, 2008; amended in R09-3 at 33 Ill. Reg. 1186, effective December 30, 2008; amended in R11-2/R11-16 at 35 Ill. Reg. 18131, effective October 14, 2011; amended in R12-7 at 36 Ill. Reg. 8790, effective June 4, 2012; amended in R13-15 at 37 Ill. Reg. 17951, effective October 24, 2013; amended in R16-7 at 40 Ill. Reg. \_\_\_\_\_, 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 a person has been granted an extension to the effective date of a prohibition pursuant to Subpart C of this Part or pursuant to Section 728.105, with respect to those wastes covered by the extension;

- 2) Where a person has been granted an exemption from a prohibition pursuant to a petition pursuant to 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 which is otherwise prohibited pursuant to this Part is not prohibited if the following is true of the waste:
  - A) The waste is disposed into a non-hazardous or hazardous waste injection well, as defined in 35 Ill. Adm. Code 704.106(a); and
  - B) The waste does not exhibit any prohibited characteristic of hazardous waste identified in Subpart C of 35 Ill. Adm. Code 721 at the point of injection.
- 4) A waste that is hazardous only because it exhibits a characteristic of hazardous waste and which is otherwise prohibited pursuant to this Part is not prohibited if the waste meets any of the following criteria, unless the waste is subject to a specified method of treatment other than DEACT in Section 728.140 or is D003 reactive cyanide:
  - A) Any of the following is true of either treatment or management of the waste:
    - i) The waste is managed in a treatment system that subsequently discharges to waters of the United States pursuant to a permit issued pursuant to 35 Ill. Adm. Code 309;
    - ii) The waste is treated for purposes of the pretreatment requirements of 35 Ill. Adm. Code 307 and 310; or
    - iii) The waste is managed in a zero discharge system engaged in Clean Water Act (CWA)-equivalent treatment, as defined in Section 728.137(a); and
  - B) The waste no longer exhibits a prohibited characteristic of hazardous waste at the point of land disposal (i.e., placement in a surface impoundment).
- d) This Part does not affect the availability of a waiver pursuant to Section 121(d)(4) of the federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (42 USC 9621(d)(4)).
- e) The following hazardous wastes are not subject to any provision of this Part:



- 1) Waste generated by 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 pesticide that a farmer disposes of pursuant to 35 Ill. Adm. Code 722.170;
  - 3) Waste identified or listed as hazardous after November 8, 1984, for which USEPA has not promulgated a land disposal prohibition or treatment standard;
  - 4) De minimis losses of waste that exhibits a characteristic of hazardous waste to wastewaters are not considered to be prohibited waste and are defined as losses from normal material handling operations (e.g., spills from the unloading or transfer of materials from bins or other containers or leaks from pipes, valves, or other devices used to transfer materials); minor leaks of process equipment, storage tanks, or containers; leaks from well-maintained pump packings and seals; sample purgings; relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; rinsate from empty containers or from containers that are rendered empty by that rinsing; and laboratory waste that does not exceed one percent of the total flow of wastewater into the facility's headworks on an annual basis, or with a combined annualized average concentration not exceeding one part per million (ppm) in the headworks of the facility's wastewater treatment or pretreatment facility; or
  - ~~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 pursuant to 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 728.150 for the hazardous wastes listed below. Such a handler or transporter is subject to regulation pursuant to 35 Ill. Adm. Code 733.
- 1) Batteries, as described in 35 Ill. Adm. Code 733.102;
  - 2) Pesticides, as described in 35 Ill. Adm. Code 733.103;

- 3) Mercury-containing equipment, as described in 35 Ill. Adm. Code 733.104; and
  - 4) Lamps, as described in 35 Ill. Adm. Code 733.105.
- g) This Part is cumulative with the land disposal restrictions of 35 Ill. Adm. Code 729. The Environmental Protection Agency (Agency) must not issue a wastestream authorization pursuant to 35 Ill. Adm. Code 709 or Section 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.
  - h) Electronic reporting. The filing of any document pursuant to any provision of this Part as an electronic document is subject to 35 Ill. Adm. Code 720.104.

BOARD NOTE: Subsection (h) is derived from 40 CFR 3, as added, and 40 CFR 271.10(b), 271.11(b), and 271.12(h) (2005), as amended at 70 Fed. Reg. 59848 (Oct. 13, 2005) (2015).

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 728.107 Testing, Tracking, and Recordkeeping Requirements for Generators, Treaters, and Disposal Facilities**

- a) Requirements for generators.
  - 1) A generator of a hazardous waste must determine if the waste has to be treated before it can be land disposed. This is done by determining if the hazardous waste meets the treatment standards in Section 728.140, 728.145, or 728.149. This determination can be made concurrently with the hazardous waste determination required in 35 Ill. Adm. Code 722.111, in either of two ways: testing the waste or using knowledge of the waste. If the generator tests the waste, testing determines the total concentration of hazardous constituents or the concentration of hazardous constituents in an extract of the waste obtained using Method 1311 (Toxicity Characteristic Leaching Procedure) in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a), depending on whether the treatment standard for the waste is expressed as a total concentration or concentration of hazardous constituent in the waste extract. (Alternatively, the generator must send the waste to a RCRA-permitted hazardous waste treatment facility, where the waste treatment facility must comply with the requirements of 35 Ill. Adm. Code 724.113 and subsection (b) of this Section.) In addition, some hazardous wastes must be treated by particular treatment methods before they can be land disposed and some soils are contaminated by such hazardous wastes. These treatment standards are also found in Section 728.140 and Table T of this Part, and are described

in detail in Table C of this Part. These wastes and soils contaminated with such wastes do not need to be tested (however, if they are in a waste mixture, other wastes with concentration level treatment standards must be tested). If a generator determines that it is managing a waste or soil contaminated with a waste that displays a hazardous characteristic of ignitability, corrosivity, reactivity, or toxicity, the generator must comply with the special requirements of Section 728.109 in addition to any applicable requirements in this Section.

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

I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in Subpart D of 35 Ill. Adm. Code 728. I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

- B) For contaminated soil, with the initial shipment of wastes to each treatment, storage, or disposal facility, the generator must send a one-time written notice to each facility receiving the waste and place a copy in the file. The notice must include the information in the column headed “(a)(3)” in Table I of this Part.
  - C) If the waste changes, the generator must send a new notice and certification to the receiving facility and place a copy in its files. A generator of hazardous debris excluded from the definition of hazardous waste under 35 Ill. Adm. Code 721.103(f) is not subject to these requirements.
- 4) For reporting, tracking and recordkeeping when exceptions allow certain wastes or contaminated soil that do not meet the treatment standards to be land disposed, there are certain exemptions from the requirement that hazardous wastes or contaminated soil meet treatment standards before they can be land disposed. These include, but are not limited to, case-by-case extensions under Section 728.105, disposal in a no-migration unit under Section 728.106, or a national capacity variance or case-by-case capacity variance under Subpart C of this Part. If a generator’s waste is so exempt, then with the initial shipment of waste, the generator must send a one-time written notice to each land disposal facility receiving the waste. The notice must include the information indicated in column “728.107(a)(4)” of the Generator Paperwork Requirements Table in Table I of this Part. If the waste changes, the generator must send a new notice to the receiving facility, and place a copy in its file.
- 5) If a generator is managing and treating prohibited waste or contaminated soil in tanks, containers, or containment buildings regulated under 35 Ill. Adm. Code 722.134 to meet applicable LDR treatment standards found at Section 728.140, the generator must develop and follow a written waste analysis plan that describes the procedures it will carry out to comply with the treatment standards. (Generators treating hazardous debris under the alternative treatment standards of Table F of this Part, 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)-of this Section must comply with the notification requirements of subsection (a)(3)-of this Section.
- 6) If a generator determines that the waste or contaminated soil is restricted based solely on its knowledge of the waste, all supporting data used to make this determination must be retained on-site in the generator's files. If a generator determines that the waste is restricted based on testing this waste or an extract developed using Method 1311 (Toxicity Characteristic Leaching Procedure) in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," USEPA publication number EPA-530/SW-846, all waste analysis data must be retained on-site in the generator's files.
- 7) If a generator determines that it is managing a prohibited waste that is excluded from the definition of hazardous or solid waste or which is exempt from Subtitle C regulation under 35 Ill. Adm. Code 721.102 through 721.106 subsequent to the point of generation (including deactivated characteristic hazardous wastes that are managed in wastewater treatment systems subject to the CWA, as specified at 35 Ill. Adm. Code 721.104(a)(2); that are CWA-equivalent; or that are managed in an underground injection well regulated under 35 Ill. Adm. Code 730), the generator must place a one-time notice stating such generation, subsequent exclusion from the definition of hazardous or solid waste or exemption from RCRA Subtitle C regulation, and the disposition of the waste in the generating facility's on-site file.
- 8) A generator must retain a copy of all notices, certifications, waste analysis data, and other documentation produced 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 subsection (a)(8) apply to solid wastes even when the hazardous characteristic is removed prior to disposal, or when the waste is excluded from the definition of hazardous or solid waste under 35 Ill. Adm. Code 721.102 through 721.106, or exempted from RCRA Subtitle C regulation, subsequent to the point of generation.
- 9) If a generator is managing a lab pack containing hazardous wastes and wishes to use the alternative treatment standard for lab packs found at Section 728.142(c), the generator must fulfill the following conditions:
- A) With the initial shipment of waste to a treatment facility, the generator must submit a notice that provides the information in column "Section 728.107(a)(9)" in the Generator Paperwork

Requirements Table of Table I of this Part and the following certification. The certification, which must be signed by an authorized representative and must be placed in the generator's files, must say the following:

I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only wastes that have not been excluded under Appendix D to 35 Ill. Adm. Code 728 and that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at 35 Ill. Adm. Code 728.142(c). I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.

- B) No further notification is necessary until such time as the wastes in the lab pack change, or the receiving facility changes, in which case a new notice and certification must be sent and a copy placed in the generator's file.
  - C) If the lab pack contains characteristic hazardous wastes (D001-D043), underlying hazardous constituents (as defined in Section 728.102(i)) need not be determined.
  - D) The generator must also comply with the requirements in subsections (a)(6) and (a)(7) ~~of this Section~~.
- 10) Small quantity generators with tolling agreements pursuant to 35 Ill. Adm. Code 722.120(e) must 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 must retain on-site a copy of the notification and certification, together with the tolling agreement, for at least three years after termination or expiration of the agreement. The three-year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Agency.
- b) The owner or operator of a treatment facility must test its wastes according to the frequency specified in its waste analysis plan, as required by 35 Ill. Adm. Code 724.113 (for permitted TSDs) or 725.113 (for interim status facilities). Such testing must be performed as provided in subsections (b)(1), (b)(2), and (b)(3) ~~of this Section~~.
    - 1) For wastes or contaminated soil with treatment standards expressed in the waste extract (TCLP), the owner or operator of the treatment facility must test an extract of the treatment residues using Method 1311 (Toxicity Characteristic Leaching Procedure) in "Test Methods for Evaluating Solid

Waste, Physical/Chemical Methods,” USEPA publication number EPA-530/SW-846, to assure that the treatment residues extract meets the applicable treatment standards.

- 2) For wastes or contaminated soil with treatment standards expressed as concentrations in the waste, the owner or operator of the treatment facility must test the treatment residues (not an extract of such residues) to assure that the treatment residues meet the applicable treatment standards.
- 3) A one-time notice must be sent with the initial shipment of waste or contaminated soil to the land disposal facility. A copy of the notice must be placed in the treatment facility’s file.
  - A) No further notification is necessary until such time that the waste or receiving facility changes, in which case a new notice must be sent and a copy placed in the treatment facility’s file.
  - B) The one-time notice must include the following requirements:
    - i) USEPA hazardous waste number and manifest number of first shipment;
    - ii) The waste is subject to the LDRs. The constituents of concern for F001 through F005 and F039 waste and underlying hazardous constituents in characteristic wastes, unless the waste will be treated and monitored for all constituents. If all constituents will be treated and monitored, there is no need to put them all on the LDR notice;
    - iii) The notice must include the applicable wastewater/nonwastewater category (see Section 728.102(d) and (f)) and subdivisions made within a waste code based on waste-specific criteria (such as D003 reactive cyanide);
    - iv) Waste analysis data (when available);
    - v) For contaminated soil subject to LDRs as provided in Section 728.149(a), the constituents subject to treatment as described in Section 728.149(d) and the following statement, “this contaminated soil (does/does not) contain listed hazardous waste and (does/does not) exhibit a characteristic of hazardous waste and (is subject to/complies with) the soil treatment standards as provided by Section 728.149(c)”;
    - vi) A certification is needed (see applicable Section for exact wording).

- 4) The owner or operator of a treatment facility must submit a certification signed by an authorized representative with the initial shipment of waste or treatment residue of a restricted waste to the land disposal facility. The certification must state as follows:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the treatment standards specified in 35 Ill. Adm. Code 728.140 without impermissible dilution of the prohibited waste. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

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

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and believe that it has been maintained and operated properly so as to comply with treatment standards specified in 35 Ill. Adm. Code 728.149 without impermissible dilution of the prohibited wastes. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

- A) A copy of the certification must be placed in the treatment facility's on-site files. If the waste or treatment residue changes, or the receiving facility changes, a new certification must be sent to the receiving facility, and a copy placed in the treatment facility's file.
- B) Debris excluded from the definition of hazardous waste under 35 Ill. Adm. Code 721.103(f) (i.e., debris treated by an extraction or destruction technology listed in Table F of this Part and debris that the Agency has determined does not contain hazardous waste) is subject to the notification and certification requirements of subsection (d) ~~of this Section~~ rather than the certification requirements of this subsection (b)(4).
- C) For wastes with organic constituents having treatment standards expressed as concentration levels, if compliance with the treatment standards is based in part or in whole on the analytical detection limit alternative specified in Section 728.140(d), the certification



must be signed by an authorized representative and must state as follows:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by combustion units as specified in Table C to 35 Ill. Adm. Code 728. I have been unable to detect the nonwastewater organic constituents, despite having used best good faith efforts to analyze for such constituents. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

- D) For characteristic wastes that are subject to the treatment standards in Section 728.140 and Table T of this Part (other than those expressed as a required method of treatment) or Section 728.149 and which contain underlying hazardous constituents, as defined in Section 728.102(i); if these wastes are treated on-site to remove the hazardous characteristic; and that are then sent off-site for treatment of underlying hazardous constituents, the certification must state as follows:

I certify under penalty of law that the waste has been treated in accordance with the requirements of 35 Ill. Adm. Code 728.140 and Table T of Section 728.149 of that Part to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

- E) For characteristic wastes that contain underlying hazardous constituents, as defined in Section 728.102(i), that are treated on-site to remove the hazardous characteristic and to treat underlying hazardous constituents to levels in Section 728.148 and Table U of this Part universal treatment standards, the certification must state as follows:

I certify under penalty of law that the waste has been treated in accordance with the requirements of 35 Ill. Adm. Code 728.140 and Table T of that Part to remove the hazardous characteristic and that underlying hazardous

constituents, as defined in 35 Ill. Adm. Code 728.102(i), have been treated on-site to meet the universal treatment standards of 35 Ill. Adm. Code 728.148 and Table U of that Part. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

- 5) If the waste or treatment residue will be further managed at a different treatment, storage, or disposal facility, the treatment, storage, or disposal facility that sends the waste or treatment residue off-site must comply with the notice and certification requirements applicable to generators under this Section.
  - 6) 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) must, for the initial shipment of waste, prepare a one-time certification described in subsection (b)(4) ~~of this Section~~ and a notice that includes the information listed in subsection (b)(3) ~~of this Section~~ (except the manifest number). The certification and notification must be placed in the facility's on-site files. If the waste or the receiving facility changes, a new certification and notification must be prepared and placed in the on-site files. In addition, the owner or operator of the recycling facility also must keep records of the name and location of each entity receiving the hazardous waste-derived product.
- c) Except 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 must do the following:
- 1) Maintain in its files copies of the notice and certifications specified in subsection (a) or (b) ~~of this Section~~.
  - 2) Test the waste or an extract of the waste or treatment residue developed using Method 1311 (Toxicity Characteristic Leaching Procedure in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," USEPA publication number EPA-530/SW-846) to assure that the waste or treatment residue is in compliance with the applicable treatment standards set forth in Subpart D of this Part. Such testing must be performed according to the frequency specified in the facility's waste analysis plan as required by 35 Ill. Adm. Code 724.113 or 35 Ill. Adm. Code 725.113.
  - 3) 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 must ensure that such waste is the subject of a certification according to the

requirements of Section 728.108 prior to disposal in a landfill or surface impoundment unit, and that such disposal is in accordance with the requirements of Section 728.105(h)(2). The same requirement applies to any waste that is subject to the prohibitions under Section 728.133(f) and also is subject to the statutory prohibitions in the codified prohibitions in Section 728.139 or Section 728.132.

- 4) 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(f) (i.e., debris treated by an extraction or destruction technology provided by Table F of this Part, 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)~~ 721.103(f)(1), the technology from Table F of this Part 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 ~~721.102(f)(1)~~ 721.103(f)(1), if a different type of debris is treated or if a different technology is used to treat the debris.
  - 3) For debris excluded under 35 Ill. Adm. Code ~~721.102(f)(1)~~ 721.103(f)(1), the owner or operator of the treatment facility must document and certify compliance with the treatment standards of Table F of this Part, as follows:
    - A) Records must be kept of all inspections, evaluations, and analyses of treated debris that are made to determine compliance with the treatment standards;

- B) Records must be kept of any data or information the treater obtains during treatment of the debris that identifies key operating parameters of the treatment unit; and
- C) For each shipment of treated debris, a certification of compliance with the treatment standards must be signed by an authorized representative and placed in the facility's files. The certification must state as follows:

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

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

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section ~~728.132~~ Appendix C ~~728.132~~ APPENDIX C List of Halogenated Organic Compounds Regulated under Section 728.132**

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

I. Volatiles

1. Bromodichloromethane (CAS No. 75-27-4)
2. Bromomethane (CAS No. 74-83-9)
3. Carbon Tetrachloride (tetrachloromethane) (CAS No. 56-23-5)
4. Chlorobenzene (CAS No. 108-90-7)
5. 2-Chloro-1,3-butadiene (CAS No. 126-99-8)
6. Chlorodibromomethane (CAS No. 124-48-1)
7. Chloroethane (CAS No. 75-00-3)

8. 2-Chloroethyl vinyl ether ((2-chloroethoxy)ethene) (CAS No. 110-75-8)
9. Chloroform (trichloromethane) (CAS No. 67-66-3)
10. Chloromethane (CAS No. 74-87-3)
11. 3-Chloropropene (3-chloroprop-1-ene) (CAS No. 107-05-1)
12. 1,2-Dibromo-3-chloropropane (CAS No. 96-12-8)
13. ~~1,2-Dibromomethane~~ 1,2-Dibromoethane (CAS No. 106-93-4)
14. Dibromomethane (CAS No. 74-95-3)
15. Trans-1,4-Dichloro-2-butene ((2E)-1,4-dichloro-2-butene) (CAS No. 110-57-6)
16. Dichlorodifluoromethane (CAS No. 75-71-8)
17. 1,1-Dichloroethane (CAS No. 75-34-3)
18. 1,2-Dichloroethane (CAS No. 107-06-2)
19. 1,1-Dichloroethylene (1,1-dichloroethene) (CAS No. 75-35-4)
20. Trans-1,2-Dichloroethene ((1E)-1,2-dichloroethene) (CAS No. 156-60-5)
21. 1,2-Dichloropropane (CAS No. 78-87-5)
22. Trans-1,3-Dichloropropene ((1E)-1,3-dichloroprop-1-ene) (CAS No. 10061-02-6)
23. cis-1,3-Dichloropropene ((1Z)-1,3-dichloroprop-1-ene) (CAS No. 10061-01-5)
24. Iodomethane (CAS No. 74-88-4)
25. Methylene chloride (dichloromethane) (CAS No. 75-09-2)
26. 1,1,1,2-Tetrachloroethane (CAS No. 630-20-6)
27. 1,1,2,2-Tetrachloroethane (CAS No. 79-34-5)
28. Tetrachloroethene (CAS No. 127-18-4)
29. Tribromomethane (CAS No. 75-25-2)
30. 1,1,1-Trichloroethane (CAS No. 71-55-6)
31. 1,1,2-Trichloroethane (CAS No. 79-00-5)
32. Trichloroethene (CAS No. 79-01-6)
33. Trichloromonofluoromethane (trichlorofluoromethane) (CAS No. 75-69-4)
34. ~~1,2,3-Trichloropropane~~ 1,2,3-trichloropropane (CAS No. 96-18-4)
35. Vinyl Chloride (chloroethene) (CAS No. 75-01-4)

## II. Semivolatiles

1. Bis(2-chloroethoxy)ethane (1,2-bis(2-chloroethoxy)ethane) (CAS No. 112-26-5)
2. ~~Bis(2-chloroethyl)ether~~ Bis(2-chloroethyl) ether (1,1'-oxybis(2-chloroethane)) (CAS No. 111-44-4)
3. Bis(2-chloroisopropyl)ether (2,2'-oxybis(2-chloropropane)) (CAS No. 39638-32-9)
4. p-Chloroaniline (4-chlorobenzeneamine) (CAS No. 106-47-8)
5. Chlorobenzilate (ethyl 2,2-bis(4-chlorophenyl)-2-hydroxyacetate) (CAS No. 510-15-6)
6. p-Chloro-m-cresol (4-chloro-3-methylphenol) (CAS No. 59-50-7)
7. 2-Chloronaphthalene (CAS No. 91-58-7)
8. 2-Chlorophenol (CAS No. 95-57-8)
9. 3-Chloropropionitrile (3-chloropronanenitrile) (CAS No. 542-76-7)
10. m-Dichlorobenzene (1,3-dichlorobenzene) (CAS No. 541-73-1)
11. o-Dichlorobenzene (1,2-dichlorobenzene) (CAS No. 95-50-1)
12. p-Dichlorobenzene (1,4-dichlorobenzene) (CAS No. 106-46-7)
13. 3,3'-Dichlorobenzidine (4-(4-amino-3-chlorophenyl)-2-chloroaniline) (CAS No. 91-94-1)

14. 2,4-Dichlorophenol (CAS No. 120-83-2)
15. 2,6-Dichlorophenol (CAS No. 87-65-0)
16. Hexachlorobenzene (CAS No. 118-74-1)
17. Hexachlorobutadiene (hexachlorobuta-1,3-diene) (CAS No. 87-68-3)
18. Hexachlorocyclopentadiene (CAS No. 77-47-4)
19. Hexachloroethane (CAS No. 67-72-1)
20. Hexachlorophene (2,2'-methylenebis(3,4,6-trichlorophenol)) (CAS No. 70-30-4)
21. Hexachloropropene (CAS No. 1888-71-7)
22. 4,4'-Methylenebis(2-chloroaniline) (4-[(4-amino-3-chlorophenyl)methyl]-2-chloroaniline) (CAS No. 101-14-4)
23. Pentachlorobenzene (CAS No. 608-93-5)
24. Pentachloroethane (CAS No. 76-01-7)
25. Pentachloronitrobenzene (CAS No. 82-68-8)
26. Pentachlorophenol (CAS No. 87-86-5)
27. Pronamide (3,5-dichloro-N-(1,1-dimethylprop-2-ynyl)benzamide) (CAS No. 23950-58-5)
28. 1,2,4,5-Tetrachlorobenzene (CAS No. 95-94-3)
29. 2,3,4,6-Tetrachlorophenol (CAS No. 58-90-2)
30. 1,2,4-Trichlorobenzene (CAS No. 120-82-1)
31. 2,4,5-Trichlorophenol (CAS No. 95-95-4)
32. 2,4,6-Trichlorophenol (CAS No. 88-06-2)
33. Tris(2,3-dibromopropyl)phosphate Tris(2,3-dibromopropyl) phosphate (CAS No. 126-72-7)

### III. Organochlorine Pesticides

1. Aldrin ((1R,4S,4aS,5S,8R,8aR)-1,2,3,4,10,10-hexachloro-1,2,4a,5,8,8a-hexahydro-1,4:5,8-dimethanonaphthlene) (CAS No. 309-00-2)
2. alpha-BHC ( $\alpha$ -1,2,3,4,5,6-hexachlorocyclohexane) (CAS No. 319-84-6)
3. beta-BHC ( $\beta$ -1,2,3,4,5,6-hexachlorocyclohexane) (CAS No. 319-85-7)
4. delta-BHC ( $\delta$ -1,2,3,4,5,6-hexachlorocyclohexane) (CAS No. 58-89-9)
5. gamma-BHC ( $\gamma$ -1,2,3,4,5,6-hexachlorocyclohexane) (CAS No. 319-86-8)
6. Chlorodane Chlordane (1,2,4,5,6,7,8,8-octachloro-3a,4,5,5a-tetrahydro-4,7-methanoindane) (CAS No. 57-74-9)
7. DDD (1,1-bis(4-chlorophenyl)-2,2-dichloroethane) (CAS No. 72-54-8)
8. DDE (1,1-bis(4-chlorophenyl)-2,2-dichloroethene) (CAS No. 72-55-9)
9. DDT (1,1,1-trichloro-2,2-bis(4-chlorophenyl)ethane) (CAS No. 50-29-3)
10. Dieldrin ((1aR,2R,2aS,3S,6R,7S,7aS)-3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-2,7:3,6-dimethanonaphtho[2,3-b]oxirene) (CAS No. 60-57-1)
11. Endosulfan I ((3 $\alpha$ ,5 $\alpha$  $\beta$ ,6 $\alpha$ ,9 $\alpha$ ,9 $\alpha$  $\beta$ )-6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-6,9-methano-2,4,3-benzodioxathiepine-3-oxide) (CAS No. 959-98-8)
12. Endosulfan II ((3 $\alpha$ ,5 $\alpha$  $\beta$ ,6 $\beta$ ,9 $\beta$ ,9 $\alpha$ )-6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-6,9-methano-2,4,3-benzodioxathiepine-3-oxide) (CAS No. 33213-65-9)
13. Endrin (1 $\alpha$ ,2 $\beta$ ,2 $\alpha$  $\beta$ ,3 $\alpha$ ,6 $\alpha$ ,6 $\alpha$  $\beta$ ,7 $\beta$ ,7 $\alpha$ )-3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-2,7:3,6-dimethanonaphth(2,3-b)oxirene) (CAS No. 72-20-8)

14. Endrin aldehyde (1 $\alpha$ ,2 $\beta$ ,2a $\beta$ ,4 $\beta$ ,4a $\beta$ ,5 $\beta$ ,6a $\beta$ ,6b $\beta$ ,7R\*)-2,2a,3,3,4,7-hexachlorodecahydro-1,2,4-methenocyclopenta(c,d)pentalene-5-carboxaldehyde) (CAS No. 7421-93-4)
15. Heptachlor (1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-4,7-methano-1*H*-indene) (CAS No. 76-44-8)
16. Heptachlor epoxide ((1aR,1bS,2R,5S,5aR,6S,6aR)-2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-2,5-methano-2*H*-indeno(1,2b)oxirene) (CAS No. 1024-57-3)
17. Isodrin ((1R,4S,4aS,5R,8S,8aR)-rel-1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-dimethanonaphthlaene) (CAS No. 465-73-6)
18. Kepone (1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-1,3,4-metheno-2*H*-cyclobuta(cd)pentalen-2-one) (CAS No. 143-50-0)
19. ~~Methoxyelor~~Methoxychlor (1,1'-(2,2,2-trichloroethylidene)bis(4-methoxybenzene)) (CAS No. 72-43-5)
20. Toxaphene (CAS No. 8001-35-2)

#### IV. Phenoxyacetic Acid Herbicides

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

#### V. PCBs

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

#### VI. Dioxins and Furans

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

BOARD NOTE: Derived from appendix III to 40 CFR 268-(2010) (2015).

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

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

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

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

Waste code	Waste category	Effective date
D001 <sup>c</sup>	All (except High TOC Ignitable Liquids)	August 9, 1993
D001	High TOC Ignitable Liquids	August 8, 1990
D002 <sup>c</sup>	All	August 9, 1993
D003 <sup>e</sup>	Newly identified surface-disposed elemental phosphorus processing wastes	May 26, 2000
D004	Newly identified D004 and mineral processing wastes	August 24, 1998
D004	Mixed radioactive/newly identified D004 or mineral processing wastes	May 26, 2000
D005	Newly identified D005 and mineral processing wastes	August 24, 1998
D005	Mixed radioactive/newly identified D005 or mineral processing wastes	May 26, 2000
D006	Newly identified D006 and mineral processing wastes	August 24, 1998
D006	Mixed radioactive/newly identified D006 or mineral processing wastes	May 26, 2000
D007	Newly identified D007 and mineral processing wastes	August 24, 1998
D007	Mixed radioactive/newly identified D007 or mineral processing wastes	May 26, 2000
D008	Newly identified D008 and mineral processing waste	August 24, 1998
D008	Mixed radioactive/newly identified D008 or mineral processing wastes	May 26, 2000
D009	Newly identified D009 and mineral processing waste	August 24, 1998
D009	Mixed radioactive/newly identified D009 or mineral processing wastes	May 26, 2000
D010	Newly identified D010 and mineral processing wastes	August 24, 1998
D010	Mixed radioactive/newly identified D010 or mineral processing wastes	May 26, 2000
D011	Newly identified D011 and mineral processing wastes	August 24, 1998
D011	Mixed radioactive/newly identified D011 or mineral processing wastes	May 26, 2000



D012 (that exhibit the toxicity characteristic based on the TCLP) <sup>d</sup>	All	December 14, 1994
D013 (that exhibit the toxicity characteristic based on the TCLP) <sup>d</sup>	All	December 14, 1994
D014 (that exhibit the toxicity characteristic based on the TCLP) <sup>d</sup>	All	December 14, 1994
D015 (that exhibit the toxicity characteristic based on the TCLP) <sup>d</sup>	All	December 14, 1994
D016 (that exhibit the toxicity characteristic based on the TCLP) <sup>d</sup>	All	December 14, 1994
D017 (that exhibit the toxicity characteristic based on the TCLP) <sup>d</sup>	All	December 14, 1994
D018	Mixed with radioactive wastes	September 19, 1996
D018	All others	December 19, 1994
D019	Mixed with radioactive wastes	September 19, 1996
D019	All others	December 19, 1994
D020	Mixed with radioactive wastes	September 19, 1996
D020	All others	December 19, 1994
D021	Mixed with radioactive wastes	September 19, 1996
D021	All others	December 19, 1994
D022	Mixed with radioactive wastes	September 19, 1996
D022	All others	December 19, 1994
D023	Mixed with radioactive wastes	September 19, 1996
D023	All others	December 19, 1994
D024	Mixed with radioactive wastes	September 19, 1996
D024	All others	December 19, 1994
D025	Mixed with radioactive wastes	September 19, 1996
D025	All others	December 19, 1994
D026	Mixed with radioactive wastes	September 19, 1996
D026	All others	December 19, 1994
D027	Mixed with radioactive wastes	September 19, 1996
D027	All others	December 19, 1994
D028	Mixed with radioactive wastes	September 19, 1996
D028	All others	December 19, 1994
D029	Mixed with radioactive wastes	September 19, 1996
D029	All others	December 19, 1994
D030	Mixed with radioactive wastes	September 19, 1996
D030	All others	December 19, 1994
D031	Mixed with radioactive wastes	September 19, 1996
D031	All others	December 19, 1994

D032	Mixed with radioactive wastes	September 19, 1996
D032	All others	December 19, 1994
D033	Mixed with radioactive wastes	September 19, 1996
D033	All others	December 19, 1994
D034	Mixed with radioactive wastes	September 19, 1996
D034	All others	December 19, 1994
D035	Mixed with radioactive wastes	September 19, 1996
D035	All others	December 19, 1994
D036	Mixed with radioactive wastes	September 19, 1996
D036	All others	December 19, 1994
D037	Mixed with radioactive wastes	September 19, 1996
D037	All others	December 19, 1994
D038	Mixed with radioactive wastes	September 19, 1996
D038	All others	December 19, 1994
D039	Mixed with radioactive wastes	September 19, 1996
D039	All others	December 19, 1994
D040	Mixed with radioactive wastes	September 19, 1996
D040	All others	December 19, 1994
D041	Mixed with radioactive wastes	September 19, 1996
D041	All others	December 19, 1994
D042	Mixed with radioactive wastes	September 19, 1996
D042	All others	December 19, 1994
D043	Mixed with radioactive wastes	September 19, 1996
D043	All others	December 19, 1994
F001	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids	November 8, 1988
F001	All others	November 8, 1986
F002 (1,1,2-trichloroethane)	Wastewater and Nonwastewater	August 8, 1990
F002	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids	November 8, 1988
F002	All others	November 8, 1986
F003	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids	November 8, 1988
F003	All others	November 8, 1986
F004	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids	November 8, 1988
F004	All others	November 8, 1986

F005 (benzene, 2-ethoxy ethanol, 2-nitropropane)	Wastewater and Nonwastewater	August 8, 1990
F005	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids	November 8, 1988
F005	All others	November 8, 1986
F006	Wastewater	August 8, 1990
F006	Nonwastewater	August 8, 1988
F006 (cyanides)	Nonwastewater	July 8, 1989
F007	All	July 8, 1989
F008	All	July 8, 1989
F009	All	July 8, 1989
F010	All	June 8, 1989
F011 (cyanides)	Nonwastewater	December 8, 1989
F011	All others	July 8, 1989
F012 (cyanides)	Nonwastewater	December 8, 1989
F012	All others	July 8, 1989
F019	All	August 8, 1990
F020	All	November 8, 1988
F021	All	November 8, 1988
F025	All	August 8, 1990
F026	All	November 8, 1988
F027	All	November 8, 1988
F028	All	November 8, 1988
F032	Mixed with radioactive wastes	May 12, 1999
F032	All others	August 12, 1997
F034	Mixed with radioactive wastes	May 12, 1999
F034	All others	August 12, 1997
F035	Mixed with radioactive wastes	May 12, 1999
F035	All others	August 12, 1997
F037	Not generated from surface impoundment cleanouts or closures	June 30, 1993
F037	Generated from surface impoundment cleanouts or closures	June 30, 1994
F037	Mixed with radioactive wastes	June 30, 1994
F038	Not generated from surface impoundment cleanouts or closures	June 30, 1993
F038	Generated from surface impoundment cleanouts or closures	June 30, 1994
F038	Mixed with radioactive wastes	June 30, 1994
F039	Wastewater	August 8, 1990
F039	Nonwastewater	May 8, 1992
K001 (organics) <sup>b</sup>	All	August 8, 1988
K001	All others	August 8, 1988
K002	All	August 8, 1990

K003	All	August 8, 1990
K004	Wastewater	August 8, 1990
K004	Nonwastewater	August 8, 1988
K005	Wastewater	August 8, 1990
K005	Nonwastewater	June 8, 1989
K006	All	August 8, 1990
K007	Wastewater	August 8, 1990
K007	Nonwastewater	June 8, 1989
K008	Wastewater	August 8, 1990
K008	Nonwastewater	August 8, 1988
K009	All	June 8, 1989
K010	All	June 8, 1989
K011	Wastewater	August 8, 1990
K011	Nonwastewater	June 8, 1989
K013	Wastewater	August 8, 1990
K013	Nonwastewater	June 8, 1989
K014	Wastewater	August 8, 1990
K014	Nonwastewater	June 8, 1989
K015	Wastewater	August 8, 1988
K015	Nonwastewater	August 8, 1990
K016	All	August 8, 1988
K017	All	August 8, 1990
K018	All	August 8, 1988
K019	All	August 8, 1988
K020	All	August 8, 1988
K021	Wastewater	August 8, 1990
K021	Nonwastewater	August 8, 1988
K022	Wastewater	August 8, 1990
K022	Nonwastewater	August 8, 1988
K023	All	June 8, 1989
K024	All	August 8, 1988
K025	Wastewater	August 8, 1990
K025	Nonwastewater	August 8, 1988
K026	All	August 8, 1990
K027	All	June 8, 1989
K028 (metals)	Nonwastewater	August 8, 1990
K028	All others	June 8, 1989
K029	Wastewater	August 8, 1990
K029	Nonwastewater	June 8, 1989
K030	All	August 8, 1988
K031	Wastewater	August 8, 1990
K031	Nonwastewater	May 8, 1992
K032	All	August 8, 1990
K033	All	August 8, 1990
K034	All	August 8, 1990
K035	All	August 8, 1990

K036	Wastewater	June 8, 1989
K036	Nonwastewater	August 8, 1988
K037 <sup>b</sup>	Wastewater	August 8, 1988
K037	Nonwastewater	August 8, 1988
K038	All	June 8, 1989
K039	All	June 8, 1989
K040	All	June 8, 1989
K041	All	August 8, 1990
K042	All	August 8, 1990
K043	All	June 8, 1989
K044	All	August 8, 1988
K045	All	August 8, 1988
K046 (Nonreactive)	Nonwastewater	August 8, 1988
K046	All others	August 8, 1990
K047	All	August 8, 1988
K048	Wastewater	August 8, 1990
K048	Nonwastewater	November 8, 1990
K049	Wastewater	August 8, 1990
K049	Nonwastewater	November 8, 1990
K050	Wastewater	August 8, 1990
K050	Nonwastewater	November 8, 1990
K051	Wastewater	August 8, 1990
K051	Nonwastewater	November 8, 1990
K052	Wastewater	August 8, 1990
K052	Nonwastewater	November 8, 1990
K060	Wastewater	August 8, 1990
K060	Nonwastewater	August 8, 1988
K061	Wastewater	August 8, 1990
K061	Nonwastewater	June 30, 1992
K062	All	August 8, 1988
K069 (non-calcium sulfate)	Nonwastewater	August 8, 1988
K069	All others	August 8, 1990
K071	All	August 8, 1990
K073	All	August 8, 1990
K083	All	August 8, 1990
K084	Wastewater	August 8, 1990
K084	Nonwastewater	May 8, 1992
K085	All	August 8, 1990
K086 (organics) <sup>b</sup>	All	August 8, 1988
K086	All others	August 8, 1988
K087	All	August 8, 1988
<del>K088</del>	<del>Mixed with radioactive wastes</del>	<del>April 8, 1998</del>
K088	All others	October 8, 1997
<u>K088</u>	<u>All others</u>	<u>January 8, 1997</u>
K093	All	June 8, 1989
K094	All	June 8, 1989

K095	Wastewater	August 8, 1990
K095	Nonwastewater	June 8, 1989
K096	Wastewater	August 8, 1990
K096	Nonwastewater	June 8, 1989
K097	All	August 8, 1990
K098	All	August 8, 1990
K099	All	August 8, 1988
K100	Wastewater	August 8, 1990
K100	Nonwastewater	August 8, 1988
K101 (organics)	Wastewater	August 8, 1988
K101 (metals)	Wastewater	August 8, 1990
K101 (organics)	Nonwastewater	August 8, 1988
K101 (metals)	Nonwastewater	May 8, 1992
K102 (organics)	Wastewater	August 8, 1988
K102 (metals)	Wastewater	August 8, 1990
K102 (organics)	Nonwastewater	August 8, 1988
K102 (metals)	Nonwastewater	May 8, 1992
K103	All	August 8, 1988
K104	All	August 8, 1988
K105	All	August 8, 1990
K106	Wastewater	August 8, 1990
K106	Nonwastewater	May 8, 1992
K107	Mixed with radioactive wastes	June 30, 1994
K107	All others	November 9, 1992
K108	Mixed with radioactive wastes	June 30, 1994
K108	All others	November 9, 1992
K109	Mixed with radioactive wastes	June 30, 1994
K109	All others	November 9, 1992
K110	Mixed with radioactive wastes	June 30, 1994
K110	All others	November 9, 1992
K111	Mixed with radioactive wastes	June 30, 1994
K111	All others	November 9, 1992
K112	Mixed with radioactive wastes	June 30, 1994
K112	All others	November 9, 1992
K113	All	June 8, 1989
K114	All	June 8, 1989
K115	All	June 8, 1989
K116	All	June 8, 1989
K117	Mixed with radioactive wastes	June 30, 1994
K117	All others	November 9, 1992
K118	Mixed with radioactive wastes	June 30, 1994
K118	All others	November 9, 1992
K123	Mixed with radioactive wastes	June 30, 1994
K123	All others	November 9, 1992
K124	Mixed with radioactive wastes	June 30, 1994
K124	All others	November 9, 1992

K125	Mixed with radioactive wastes	June 30, 1994
K125	All others	November 9, 1992
K126	Mixed with radioactive wastes	June 30, 1994
K126	All others	November 9, 1992
K131	Mixed with radioactive wastes	June 30, 1994
K131	All others	November 9, 1992
K132	Mixed with radioactive wastes	June 30, 1994
K132	All others	November 9, 1992
K136	Mixed with radioactive wastes	June 30, 1994
K136	All others	November 9, 1992
K141	Mixed with radioactive wastes	September 19, 1996
K141	All others	December 19, 1994
K142	Mixed with radioactive wastes	September 19, 1996
K142	All others	December 19, 1994
K143	Mixed with radioactive wastes	September 19, 1996
K143	All others	December 19, 1994
K144	Mixed with radioactive wastes	September 19, 1996
K144	All others	December 19, 1994
K145	Mixed with radioactive wastes	September 19, 1996
K145	All others	December 19, 1994
K147	Mixed with radioactive wastes	September 19, 1996
K147	All others	December 19, 1994
K148	Mixed with radioactive wastes	September 19, 1996
K148	All others	December 19, 1994
K149	Mixed with radioactive wastes	September 19, 1996
K149	All others	December 19, 1994
K150	Mixed with radioactive wastes	September 19, 1996
K150	All others	December 19, 1994
K151	Mixed with radioactive wastes	September 19, 1996
K151	All others	December 19, 1994
K156	Mixed with radioactive wastes	April 8, 1998
K156	All others	July 8, 1996
K157	Mixed with radioactive wastes	April 8, 1998
K157	All others	July 8, 1996
K158	Mixed with radioactive wastes	April 8, 1998
K158	All others	July 8, 1996
K159	Mixed with radioactive wastes	April 8, 1998
K159	All others	July 8, 1996
K160	Mixed with radioactive wastes	April 8, 1998
K160	All others	July 8, 1996
K161	Mixed with radioactive wastes	April 8, 1998
K161	All others	July 8, 1996
K169	All	February 8, 1999
K170	All	February 8, 1999
K171	All	February 8, 1999
K172	All	February 8, 1999

K174	All	May 7, 2001
K175	All	May 7, 2001
K176	All	May 20, 2002
K177	All	May 20, 2002
K178	All	May 20, 2002
K181	All	August 23, 2005
P001	All	August 8, 1990
P002	All	August 8, 1990
P003	All	August 8, 1990
P004	All	August 8, 1990
P005	All	August 8, 1990
P006	All	August 8, 1990
P007	All	August 8, 1990
P008	All	August 8, 1990
P009	All	August 8, 1990
P010	Wastewater	August 8, 1990
P010	Nonwastewater	May 8, 1992
P011	Wastewater	August 8, 1990
P011	Nonwastewater	May 8, 1992
P012	Wastewater	August 8, 1990
P012	Nonwastewater	May 8, 1992
P013 (barium)	Nonwastewater	August 8, 1990
P013	All others	June 8, 1989
P014	All	August 8, 1990
P015	All	August 8, 1990
P016	All	August 8, 1990
P017	All	August 8, 1990
P018	All	August 8, 1990
P020	All	August 8, 1990
P021	All	June 8, 1989
P022	All	August 8, 1990
P023	All	August 8, 1990
P024	All	August 8, 1990
P026	All	August 8, 1990
P027	All	August 8, 1990
P028	All	August 8, 1990
P029	All	June 8, 1989
P030	All	June 8, 1989
P031	All	August 8, 1990
P033	All	August 8, 1990
P034	All	August 8, 1990
P036	Wastewater	August 8, 1990
P036	Nonwastewater	May 8, 1992
P037	All	August 8, 1990
P038	Wastewater	August 8, 1990
P038	Nonwastewater	May 8, 1992



P039	All	June 8, 1989
P040	All	June 8, 1989
P041	All	June 8, 1989
P042	All	August 8, 1990
P043	All	June 8, 1989
P044	All	June 8, 1989
P045	All	August 8, 1990
P046	All	August 8, 1990
P047	All	August 8, 1990
P048	All	August 8, 1990
P049	All	August 8, 1990
P050	All	August 8, 1990
P051	All	August 8, 1990
P054	All	August 8, 1990
P056	All	August 8, 1990
P057	All	August 8, 1990
P058	All	August 8, 1990
P059	All	August 8, 1990
P060	All	August 8, 1990
P062	All	June 8, 1989
P063	All	June 8, 1989
P064	All	August 8, 1990
P065	Wastewater	August 8, 1990
P065	Nonwastewater	May 8, 1992
P066	All	August 8, 1990
P067	All	August 8, 1990
P068	All	August 8, 1990
P069	All	August 8, 1990
P070	All	August 8, 1990
P071	All	June 8, 1989
P072	All	August 8, 1990
P073	All	August 8, 1990
P074	All	June 8, 1989
P075	All	August 8, 1990
P076	All	August 8, 1990
P077	All	August 8, 1990
P078	All	August 8, 1990
P081	All	August 8, 1990
P082	All	August 8, 1990
P084	All	August 8, 1990
P085	All	June 8, 1989
P087	All	May 8, 1992
P088	All	August 8, 1990
P089	All	June 8, 1989
P092	Wastewater	August 8, 1990
P092	Nonwastewater	May 8, 1992

P093	All	August 8, 1990
P094	All	June 8, 1989
P095	All	August 8, 1990
P096	All	August 8, 1990
P097	All	June 8, 1989
P098	All	June 8, 1989
P099 (silver)	Wastewater	August 8, 1990
P099	All others	June 8, 1989
P101	All	August 8, 1990
P102	All	August 8, 1990
P103	All	August 8, 1990
P104 (silver)	Wastewater	August 8, 1990
P104	All others	June 8, 1989
P105	All	August 8, 1990
P106	All	June 8, 1989
P108	All	August 8, 1990
P109	All	June 8, 1989
P110	All	August 8, 1990
P111	All	June 8, 1989
P112	All	August 8, 1990
P113	All	August 8, 1990
P114	All	August 8, 1990
P115	All	August 8, 1990
P116	All	August 8, 1990
P118	All	August 8, 1990
P119	All	August 8, 1990
P120	All	August 8, 1990
P121	All	June 8, 1989
P122	All	August 8, 1990
P123	All	August 8, 1990
P127	Mixed with radioactive wastes	April 8, 1998
P127	All others	July 8, 1996
P128	Mixed with radioactive wastes	April 8, 1998
P128	All others	July 8, 1996
P185	Mixed with radioactive wastes	April 8, 1998
P185	All others	July 8, 1996
P188	Mixed with radioactive wastes	April 8, 1998
P188	All others	July 8, 1996
P189	Mixed with radioactive wastes	April 8, 1998
P189	All others	July 8, 1996
P190	Mixed with radioactive wastes	April 8, 1998
P190	All others	July 8, 1996
P191	Mixed with radioactive wastes	April 8, 1998
P191	All others	July 8, 1996
P192	Mixed with radioactive wastes	April 8, 1998
P192	All others	July 8, 1996

P194	Mixed with radioactive wastes	April 8, 1998
P194	All others	July 8, 1996
P196	Mixed with radioactive wastes	April 8, 1998
P196	All others	July 8, 1996
P197	Mixed with radioactive wastes	April 8, 1998
P197	All others	July 8, 1996
P198	Mixed with radioactive wastes	April 8, 1998
P198	All others	July 8, 1996
P199	Mixed with radioactive wastes	April 8, 1998
P199	All others	July 8, 1996
P201	Mixed with radioactive wastes	April 8, 1998
P201	All others	July 8, 1996
P202	Mixed with radioactive wastes	April 8, 1998
P202	All others	July 8, 1996
P203	Mixed with radioactive wastes	April 8, 1998
P203	All others	July 8, 1996
P204	Mixed with radioactive wastes	April 8, 1998
P204	All others	July 8, 1996
P205	Mixed with radioactive wastes	April 8, 1998
P205	All others	July 8, 1996
U001	All	August 8, 1990
U002	All	August 8, 1990
U003	All	August 8, 1990
U004	All	August 8, 1990
U005	All	August 8, 1990
U006	All	August 8, 1990
U007	All	August 8, 1990
U008	All	August 8, 1990
U009	All	August 8, 1990
U010	All	August 8, 1990
U011	All	August 8, 1990
U012	All	August 8, 1990
U014	All	August 8, 1990
U015	All	August 8, 1990
U016	All	August 8, 1990
U017	All	August 8, 1990
U018	All	August 8, 1990
U019	All	August 8, 1990
U020	All	August 8, 1990
U021	All	August 8, 1990
U022	All	August 8, 1990
U023	All	August 8, 1990
U024	All	August 8, 1990
U025	All	August 8, 1990
U026	All	August 8, 1990
U027	All	August 8, 1990

U028	All	June 8, 1989
U029	All	August 8, 1990
U030	All	August 8, 1990
U031	All	August 8, 1990
U032	All	August 8, 1990
U033	All	August 8, 1990
U034	All	August 8, 1990
U035	All	August 8, 1990
U036	All	August 8, 1990
U037	All	August 8, 1990
U038	All	August 8, 1990
U039	All	August 8, 1990
U041	All	August 8, 1990
U042	All	August 8, 1990
U043	All	August 8, 1990
U044	All	August 8, 1990
U045	All	August 8, 1990
U046	All	August 8, 1990
U047	All	August 8, 1990
U048	All	August 8, 1990
U049	All	August 8, 1990
U050	All	August 8, 1990
U051	All	August 8, 1990
U052	All	August 8, 1990
U053	All	August 8, 1990
U055	All	August 8, 1990
U056	All	August 8, 1990
U057	All	August 8, 1990
U058	All	June 8, 1989
U059	All	August 8, 1990
U060	All	August 8, 1990
U061	All	August 8, 1990
U062	All	August 8, 1990
U063	All	August 8, 1990
U064	All	August 8, 1990
U066	All	August 8, 1990
U067	All	August 8, 1990
U068	All	August 8, 1990
U069	All	June 30, 1992
U070	All	August 8, 1990
U071	All	August 8, 1990
U072	All	August 8, 1990
U073	All	August 8, 1990
U074	All	August 8, 1990
U075	All	August 8, 1990
U076	All	August 8, 1990

U077	All	August 8, 1990
U078	All	August 8, 1990
U079	All	August 8, 1990
U080	All	August 8, 1990
U081	All	August 8, 1990
U082	All	August 8, 1990
U083	All	August 8, 1990
U084	All	August 8, 1990
U085	All	August 8, 1990
U086	All	August 8, 1990
U087	All	June 8, 1989
U088	All	June 8, 1989
U089	All	August 8, 1990
U090	All	August 8, 1990
U091	All	August 8, 1990
U092	All	August 8, 1990
U093	All	August 8, 1990
U094	All	August 8, 1990
U095	All	August 8, 1990
U096	All	August 8, 1990
U097	All	August 8, 1990
U098	All	August 8, 1990
U099	All	August 8, 1990
U101	All	August 8, 1990
U102	All	June 8, 1989
U103	All	August 8, 1990
U105	All	August 8, 1990
U106	All	August 8, 1990
U107	All	June 8, 1989
U108	All	August 8, 1990
U109	All	August 8, 1990
U110	All	August 8, 1990
U111	All	August 8, 1990
U112	All	August 8, 1990
U113	All	August 8, 1990
U114	All	August 8, 1990
U115	All	August 8, 1990
U116	All	August 8, 1990
U117	All	August 8, 1990
U118	All	August 8, 1990
U119	All	August 8, 1990
U120	All	August 8, 1990
U121	All	August 8, 1990
U122	All	August 8, 1990
U123	All	August 8, 1990
U124	All	August 8, 1990

U125	All	August 8, 1990
U126	All	August 8, 1990
U127	All	August 8, 1990
U128	All	August 8, 1990
U129	All	August 8, 1990
U130	All	August 8, 1990
U131	All	August 8, 1990
U132	All	August 8, 1990
U133	All	August 8, 1990
U134	All	August 8, 1990
U135	All	August 8, 1990
U136	Wastewater	August 8, 1990
U136	Nonwastewater	May 8, 1992
U137	All	August 8, 1990
U138	All	August 8, 1990
U140	All	August 8, 1990
U141	All	August 8, 1990
U142	All	August 8, 1990
U143	All	August 8, 1990
U144	All	August 8, 1990
U145	All	August 8, 1990
U146	All	August 8, 1990
U147	All	August 8, 1990
U148	All	August 8, 1990
U149	All	August 8, 1990
U150	All	August 8, 1990
U151	Wastewater	August 8, 1990
U151	Nonwastewater	May 8, 1992
U152	All	August 8, 1990
U153	All	August 8, 1990
U154	All	August 8, 1990
U155	All	August 8, 1990
U156	All	August 8, 1990
U157	All	August 8, 1990
U158	All	August 8, 1990
U159	All	August 8, 1990
U160	All	August 8, 1990
U161	All	August 8, 1990
U162	All	August 8, 1990
U163	All	August 8, 1990
U164	All	August 8, 1990
U165	All	August 8, 1990
U166	All	August 8, 1990
U167	All	August 8, 1990
U168	All	August 8, 1990
U169	All	August 8, 1990

U170	All	August 8, 1990
U171	All	August 8, 1990
U172	All	August 8, 1990
U173	All	August 8, 1990
U174	All	August 8, 1990
U176	All	August 8, 1990
U177	All	August 8, 1990
U178	All	August 8, 1990
U179	All	August 8, 1990
U180	All	August 8, 1990
U181	All	August 8, 1990
U182	All	August 8, 1990
U183	All	August 8, 1990
U184	All	August 8, 1990
U185	All	August 8, 1990
U186	All	August 8, 1990
U187	All	August 8, 1990
U188	All	August 8, 1990
U189	All	August 8, 1990
U190	All	June 8, 1989
U191	All	August 8, 1990
U192	All	August 8, 1990
U193	All	August 8, 1990
U194	All	June 8, 1989
U196	All	August 8, 1990
U197	All	August 8, 1990
U200	All	August 8, 1990
U201	All	August 8, 1990
U203	All	August 8, 1990
U204	All	August 8, 1990
U205	All	August 8, 1990
U206	All	August 8, 1990
U207	All	August 8, 1990
U208	All	August 8, 1990
U209	All	August 8, 1990
U210	All	August 8, 1990
U211	All	August 8, 1990
U213	All	August 8, 1990
U214	All	August 8, 1990
U215	All	August 8, 1990
U216	All	August 8, 1990
U217	All	August 8, 1990
U218	All	August 8, 1990
U219	All	August 8, 1990
U220	All	August 8, 1990
U221	All	June 8, 1989

U222	All	August 8, 1990
U223	All	June 8, 1989
U225	All	August 8, 1990
U226	All	August 8, 1990
U227	All	August 8, 1990
U228	All	August 8, 1990
U234	All	August 8, 1990
U235	All	June 8, 1989
U236	All	August 8, 1990
U237	All	August 8, 1990
U238	All	August 8, 1990
U239	All	August 8, 1990
U240	All	August 8, 1990
U243	All	August 8, 1990
U244	All	August 8, 1990
U246	All	August 8, 1990
U247	All	August 8, 1990
U248	All	August 8, 1990
U249	All	August 8, 1990
U271	Mixed with radioactive wastes	April 8, 1998
U271	All others	July 8, 1996
U277	Mixed with radioactive wastes	April 8, 1998
U277	All others	July 8, 1996
U278	Mixed with radioactive wastes	April 8, 1998
U278	All others	July 8, 1996
U279	Mixed with radioactive wastes	April 8, 1998
U279	All others	July 8, 1996
U280	Mixed with radioactive wastes	April 8, 1998
U280	All others	July 8, 1996
U328	Mixed with radioactive wastes	June 30, 1994
U328	All others	November 9, 1992
U353	Mixed with radioactive wastes	June 30, 1994
U353	All others	November 9, 1992
U359	Mixed with radioactive wastes	June 30, 1994
U359	All others	November 9, 1992
U364	Mixed with radioactive wastes	April 8, 1998
U364	All others	July 8, 1996
U365	Mixed with radioactive wastes	April 8, 1998
U365	All others	July 8, 1996
U366	Mixed with radioactive wastes	April 8, 1998
U366	All others	July 8, 1996
U367	Mixed with radioactive wastes	April 8, 1998
U367	All others	July 8, 1996
U372	Mixed with radioactive wastes	April 8, 1998
U372	All others	July 8, 1996
U373	Mixed with radioactive wastes	April 8, 1998



U373	All others	July 8, 1996
U375	Mixed with radioactive wastes	April 8, 1998
U375	All others	July 8, 1996
U376	Mixed with radioactive wastes	April 8, 1998
U376	All others	July 8, 1996
U377	Mixed with radioactive wastes	April 8, 1998
U377	All others	July 8, 1996
U378	Mixed with radioactive wastes	April 8, 1998
U378	All others	July 8, 1996
U379	Mixed with radioactive wastes	April 8, 1998
U379	All others	July 8, 1996
U381	Mixed with radioactive wastes	April 8, 1998
U381	All others	July 8, 1996
U382	Mixed with radioactive wastes	April 8, 1998
U382	All others	July 8, 1996
U383	Mixed with radioactive wastes	April 8, 1998
U383	All others	July 8, 1996
U384	Mixed with radioactive wastes	April 8, 1998
U384	All others	July 8, 1996
U385	Mixed with radioactive wastes	April 8, 1998
U385	All others	July 8, 1996
U386	Mixed with radioactive wastes	April 8, 1998
U386	All others	July 8, 1996
U387	Mixed with radioactive wastes	April 8, 1998
U387	All others	July 8, 1996
U389	Mixed with radioactive wastes	April 8, 1998
U389	All others	July 8, 1996
U390	Mixed with radioactive wastes	April 8, 1998
U390	All others	July 8, 1996
U391	Mixed with radioactive wastes	April 8, 1998
U391	All others	July 8, 1996
U392	Mixed with radioactive wastes	April 8, 1998
U392	All others	July 8, 1996
U393	Mixed with radioactive wastes	April 8, 1998
U393	All others	July 8, 1996
U394	Mixed with radioactive wastes	April 8, 1998
U394	All others	July 8, 1996
U395	Mixed with radioactive wastes	April 8, 1998
U395	All others	July 8, 1996
U396	Mixed with radioactive wastes	April 8, 1998
U396	All others	July 8, 1996
U400	Mixed with radioactive wastes	April 8, 1998
U400	All others	July 8, 1996
U401	Mixed with radioactive wastes	April 8, 1998
U401	All others	July 8, 1996
U402	Mixed with radioactive wastes	April 8, 1998

U402	All others	July 8, 1996
U403	Mixed with radioactive wastes	April 8, 1998
U403	All others	July 8, 1996
U404	Mixed with radioactive wastes	April 8, 1998
U404	All others	July 8, 1996
U407	Mixed with radioactive wastes	April 8, 1998
U407	All others	July 8, 1996
U409	Mixed with radioactive wastes	April 8, 1998
U409	All others	July 8, 1996
U410	Mixed with radioactive wastes	April 8, 1998
U410	All others	July 8, 1996
U411	Mixed with radioactive wastes	April 8, 1998
U411	All others	July 8, 1996

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

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

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

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

<sup>e</sup> The standards for selected reactive wastes was revised in the Phase III Final Rule (that USEPA adopted at 61 Fed. Reg. 15566 (April 8, 1996), which the Board adopted in docket R96-10/R97-3/R97-5 (consolidated) at 22 Ill. Reg. 783, effective December 16, 1997); the original effective date was August 8, 1990.

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

Restricted hazardous waste in CSD	Effective date
1. Solvent- (F001-F005) and dioxin- (F020-F023 and F026-F028) containing soil and debris from CERCLA response or RCRA corrective actions.	November 8, 1990
2. Soil and debris not from CERCLA response or RCRA corrective actions contaminated with less than one percent total solvents (F001-F005) or dioxins (F020-F023 and F026-F028).	November 8, 1988
3. All soil and debris contaminated with First Third wastes for which treatment standards are based on incineration.	August 8, 1990

- |   |                   |
|---|-------------------|
| 4. All soil and debris contaminated with Second Third wastes for which treatment standards are based on incineration.   | June 8, 1991      |
| 5. All soil and debris contaminated with Third Third wastes or, First or Second Third “soft hammer” wastes that had treatment standards promulgated in the Third Third rule, for which treatment standards are based on incineration, vitrification, or mercury retorting, acid leaching followed by chemical precipitation, or thermal recovery of metals, as well as all inorganic solids debris contaminated with D004-D011 wastes, and all soil and debris contaminated with mixed RCRA/radioactive wastes. | May 8, 1992       |
| 6. Soil and debris contaminated with D012-D043, K141-K145, and K147-151 wastes.   | December 19, 1994 |
| 7. Debris (only) contaminated with F037, F038, K107-K112, K117, K118, K123-K126, K131, K132, K136, U328, U353, U359.  | December 19, 1994 |
| 8. Soil and debris contaminated with K156- K161, P127, P128, P188-P192, P194, P196- P199, P201-P205, U271, U277-U280, U364-U367, U372, U373, U375-U379, U381-U387, U389-U396, U400-U404, U407, and U409-U411 wastes.  | July 8, 1996      |
| 9. Soil and debris contaminated with K088 wastes.   | October 8, 1997   |
| 10. Soil and debris contaminated with radioactive wastes mixed with K088, K156-K161, P127, P128, P188-P192, P194, P196-P199, P201-P205, U271, U277-U280, U364-U367, U372, U373, U375-U379, U381-U387, U389-U396, U400-U404, U407, and U409-U411 wastes.   | April 8, 1998     |
| 11. Soil and debris contaminated with F032, F034, and F035.   | May 12, 1997      |
| 12. Soil and debris contaminated with newly identified D004-D011 toxicity characteristic wastes and mineral processing wastes.  | August 24, 1998   |
| 13. Soil and debris contaminated with mixed radioactive newly identified D011 characteristic wastes and mineral processing wastes.  | May 26, 2000      |

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

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section ~~728~~ Table C ~~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 of reagents:
- 1) hypochlorite (e.g., bleach);
  - 2) chlorine;
  - 3) chlorine dioxide;
  - 4) ozone or UV (ultraviolet light) assisted ozone;
  - 5) peroxides;
  - 6) persulfates;
  - 7) perchlorates;
  - 8) 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	<p>Chemical reduction utilizing the following reducing reagents (or waste reagents) or combinations of reagents:</p> <ol style="list-style-type: none"><li>1) sulfur dioxide;</li><li>2) sodium, potassium, or alkali salts of sulfites, bisulfites, metabisulfites, and polyethylene glycols (e.g., NaPEG and KPEG);</li><li>3) sodium hydrosulfide;</li><li>4) ferrous salts; or</li><li>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.</li></ol>
CMBST	<p>High temperature organic destruction technologies, such as combustion in incinerators, boilers, or industrial furnaces operated in accordance with the applicable requirements of Subpart O of 35 Ill. Adm. Code 724, Subpart O of 35 Ill. Adm. Code 725, or Subpart H of 35 Ill. Adm. Code 726, and in other units operated in accordance with applicable technical operating requirements; and certain non-combustive technologies, such as the Catalytic Extraction Process.</p>
DEACT	<p>Deactivation to remove the hazardous characteristics of a waste due to its ignitability, corrosivity, or reactivity.</p>
FSUBS	<p>Fuel substitution in units operated in accordance with applicable technical operating requirements.</p>
HLVIT	<p>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.</p>
IMERC	<p>Incineration of wastes containing organics and mercury in units operated in accordance with the technical operating requirements of Subpart O of 35 Ill. Adm. Code 724 or Subpart O of 35 Ill. Adm. Code 725. All wastewater and nonwastewater residues derived from this process must then comply with the corresponding treatment standards per waste code with consideration of any applicable subcategories (e.g., high or low mercury subcategories).</p>
INCIN	<p>Incineration in units operated in accordance with the technical operating requirements of Subpart O of 35 Ill. Adm. Code 724 or Subpart O of 35 Ill. Adm. Code 725.</p>

LLEXT	Liquid-liquid extraction (often referred to as solvent extraction) of organics from liquid wastes into an immiscible solvent for which the hazardous constituents have a greater solvent affinity, resulting in an extract high in organics that must undergo either incineration, reuse as a fuel, or other recovery or reuse and a raffinate (extracted liquid waste) proportionately low in organics that must undergo further treatment as specified in the standard.
MACRO	Macroencapsulation with surface coating materials such as polymeric organics (e.g., resins and plastics) or with a jacket of inert inorganic materials to substantially reduce surface exposure to potential leaching media. Macroencapsulation specifically does not include any material that would be classified as a tank or container according to 35 Ill. Adm. Code 720.110.
NEUTR	Neutralization with the following reagents (or waste reagents) or combinations of reagents: <ol style="list-style-type: none"><li>1) acids;</li><li>2) bases; or</li><li>3) water (including wastewaters) resulting in a pH greater than two but less than 12.5 as measured in the aqueous residuals.</li></ol>
NLDBR	No land disposal based on recycling.
POLYM	Formation of complex high-molecular weight solids through polymerization of monomers in high-TOC D001 nonwastewaters that are chemical components in the manufacture of plastics.
PRECP	Chemical precipitation of metals and other inorganics as insoluble precipitates of oxides, hydroxides, carbonates, sulfides, sulfates, chlorides, fluorides, or phosphates. The following reagents (or waste reagents) are typically used alone or in combination: <ol style="list-style-type: none"><li>1) lime (i.e., containing oxides or hydroxides of calcium or magnesium);</li><li>2) caustic (i.e., sodium or potassium hydroxides);</li><li>3) soda ash (i.e., sodium carbonate);</li><li>4) sodium sulfide;</li><li>5) ferric sulfate or ferric chloride;</li><li>6) alum; or</li></ol>

- 7) sodium sulfate. Additional flocculating, coagulation, or similar reagents or processes that enhance sludge dewatering characteristics are not precluded from use.

RBERY Thermal recovery of beryllium.

RCGAS Recovery or reuse of compressed gases including techniques such as reprocessing of the gases for reuse or resale; filtering or adsorption of impurities; remixing for direct reuse or resale; and use of the gas as a fuel source.

RCORR Recovery of acids or bases utilizing one or more of the following recovery technologies:

- 1) distillation (i.e., thermal concentration);
- 2) ion exchange;
- 3) resin or solid adsorption;
- 4) reverse osmosis; or
- 5) incineration for the recovery of acid

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

RLEAD Thermal recovery of lead in secondary lead smelters.

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

- a) A federal national emissions standard for hazardous air pollutants (NESHAP) for mercury (subpart E of 40 CFR 61);
- b) A best available control technology (BACT) or a lowest achievable emission rate (LAER) standard for mercury imposed pursuant to a prevention of significant deterioration (PSD) permit (including 35 Ill. Adm. Code 201 through 203); or
- c) A state permit that establishes emission limitations (within meaning of Section 302 of the Clean Air Act) for mercury, including a permit issued pursuant to 35 Ill. Adm. Code 201. All wastewater and nonwastewater residues derived from this process must then comply with the corresponding treatment standards per 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	<p>Stabilization with the following reagents (or waste reagents) or combinations of reagents:</p> <ol style="list-style-type: none"> <li>1) Portland cement; or</li> <li>2) lime or pozzolans (e.g., fly ash and cement kiln dust)—this does not preclude the addition of reagents (e.g., iron salts, silicates, and clays) designed to enhance the set or cure time or compressive strength, or to overall reduce the leachability of the metal or inorganic.</li> </ol>
SSTRP	<p>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.</p>
WETOX	<p>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).</p>
WTRRX	<p>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.</p>
Note 1:	<p>When a combination of these technologies (i.e., a treatment train) is specified as a single treatment standard, the order of application is specified in Table T to this Part 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.</p>
Note 2:	<p>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.</p>

BOARD NOTE: Derived from Table I-1 in 40 CFR 268.42-(2007) (2015).

(Source: Amended at 40 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>

		Wastewaters	Nonwastewaters
Regulated Hazardous Constituent			Concentration <sup>5</sup> in
			mg/kg unless noted
		Concentration <sup>3</sup> in	as “mg/l TCLP”;
		mg/l; or Techno-	or Technology
Common Name	CAS <sup>2</sup> Number	logy Code <sup>4</sup>	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
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D001<sup>9</sup>

High TOC Ignitable Characteristic Liquids Subcategory based on 35 Ill. Adm. Code 721.121(a)(1) - Greater than or equal to 10 percent total organic carbon.

(Note: This subcategory consists of nonwastewaters only.)

NA	NA	NA	RORGS; CMBST; or POLYM
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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>
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D002, D004, D005, D006, D007, D008, D009, D010, D011

Radioactive high level wastes generated during the reprocessing of fuel rods.

(Note: This subcategory consists of nonwastewaters only.)

Corrosivity (pH)	NA	NA	HLVIT
Arsenic	7440-38-2	NA	HLVIT
Barium	7440-39-3	NA	HLVIT
Cadmium	7440-43-9	NA	HLVIT
Chromium (Total)	7440-47-3	NA	HLVIT

Lead	7439-92-1	NA	HLVIT
Mercury	7439-97-6	NA	HLVIT
Selenium	7782-49-2	NA	HLVIT
Silver	7440-22-4	NA	HLVIT
D003 <sup>9</sup>			
Reactive Sulfides Subcategory based on 35 Ill. Adm. Code 721.123(a)(5).			
NA	NA	DEACT	DEACT
D003 <sup>9</sup>			
Explosive subcategory based on 35 Ill. Adm. Code 721.123(a)(6), (a)(7), and (a)(8).			
NA	NA	DEACT and meet Section 728.148 standards <sup>8</sup>	DEACT and meet Section 728.148 standards <sup>8</sup>
D003 <sup>9</sup>			
Unexploded ordnance and other explosive devices that have been the subject of an emergency response.			
NA	NA	DEACT	DEACT
D003 <sup>9</sup>			
Other Reactives Subcategory based on 35 Ill. Adm. Code 721.123(a)(1).			
NA	NA	DEACT and meet Section 728.148 standards <sup>8</sup>	DEACT and meet Section 728.148 standards <sup>8</sup>
D003 <sup>9</sup>			
Water Reactive Subcategory based on 35 Ill. Adm. Code 721.123(a)(2), (a)(3), and (a)(4). (Note: This subcategory consists of nonwastewaters only.)			
NA	NA	NA	DEACT and meet Section 728.148 standards <sup>8</sup>
D003 <sup>9</sup>			
Reactive Cyanides Subcategory based on 35 Ill. Adm. Code 721.123(a)(5).			
Cyanides (Total) <sup>7</sup>	57-12-5	—	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30
D004 <sup>9</sup>			
Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for arsenic based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).			
Arsenic	7440-38-2	1.4 and meet Section 728.148 standards <sup>8</sup>	5.0 mg/ℓ TCLP and meet Section 728.148 standards <sup>8</sup>

D005<sup>9</sup>

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

Barium	7440-39-3	1.2 and meet Section 728.148 standards <sup>8</sup>	21 mg/ℓ TCLP and meet Section 728.148 standards <sup>8</sup>
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D006<sup>9</sup>

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

Cadmium	7440-43-9	0.69 and meet Section 728.148 standards <sup>8</sup>	0.11 mg/ℓ TCLP and meet Section 728.148 standards <sup>8</sup>
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D006<sup>9</sup>

Cadmium-Containing Batteries Subcategory.

(Note: This subcategory consists of nonwastewaters only.)

Cadmium	7440-43-9	NA	RTHRM
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D006<sup>9</sup>

Radioactively contaminated cadmium-containing batteries.

(Note: This subcategory consists of nonwastewaters only.)

Cadmium	7440-43-9	NA	Macroencapsula- tion in accordance with Section 728.145
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D007<sup>9</sup>

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

Chromium (Total)	7440-47-3	2.77 and meet Section 728.148 standards <sup>8</sup>	0.60 mg/ℓ TCLP and meet Section 728.148 standards <sup>8</sup>
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D008<sup>9</sup>

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

Lead	7439-92-1	0.69 and meet Section 728.148 standards <sup>8</sup>	0.75 mg/ℓ TCLP and meet Section 728.148 standards <sup>8</sup>
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D008<sup>9</sup>

Lead Acid Batteries Subcategory

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

Lead	7439-92-1	NA	RLEAD
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D008<sup>9</sup>

Radioactive Lead Solids Subcategory

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

Lead	7439-92-1	NA	MACRO
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D009<sup>9</sup>

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

Mercury	7439-97-6	NA	IMERC; or RMERC
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D009<sup>9</sup>

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

Mercury	7439-97-6	NA	RMERC
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D009<sup>9</sup>

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

Mercury	7439-97-6	NA	0.20 mg/ℓ TCLP and meet Section 728.148 standards <sup>8</sup>
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D009<sup>9</sup>

All other nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on Method 1311 (Toxicity Characteristic Leaching Procedure (TCLP)) in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a); and contain less than 260 mg/kg total mercury and that are not residues from RMERC. (Low Mercury Subcategory)

Mercury	7439-97-6	NA	0.025 mg/ℓ TCLP and meet Section 728.148 standards <sup>8</sup>
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D009<sup>9</sup>

All D009 wastewaters.

Mercury	7439-97-6	0.15 and meet Section 728.148 standards <sup>8</sup>	NA
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D009<sup>9</sup>

Elemental mercury contaminated with radioactive materials.  
(Note: This subcategory consists of nonwastewaters only.)

Mercury	7439-97-6	NA	AMLGM
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D009<sup>9</sup>

Hydraulic oil contaminated with Mercury Radioactive Materials Subcategory.  
(Note: This subcategory consists of nonwastewaters only.)

Mercury	7439-97-6	NA	IMERC
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D009<sup>9</sup>

Radioactively contaminated mercury-containing batteries.  
(Note: This subcategory consists of nonwastewaters only.)

Mercury	7439-97-6	NA	Macroencapsulation in accordance with Section 728.145
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D010<sup>9</sup>

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

Selenium	7782-49-2	0.82 <u>and meet</u> <u>Section 728.148</u> <u>standards</u> <sup>8</sup>	5.7 mg/ℓ TCLP and meet Section 728.148 standards <sup>8</sup>
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D011<sup>9</sup>

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

Silver	7440-22-4	0.43	0.14 mg/ℓ TCLP and meet Section 728.148 standards <sup>8</sup>
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D011<sup>9</sup>

Radioactively contaminated silver-containing batteries.

(Note: This subcategory consists of nonwastewaters only.)

Silver	7440-22-4	NA	Macroencapsula- tion in accordance with Section 728.145
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D012<sup>9</sup>

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

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

D013<sup>9</sup>

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

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

D014<sup>9</sup>

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

Methoxychlor	72-43-5	WETOX or CMBST	0.18 and meet Section 728.148 standards <sup>8</sup>
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D015<sup>9</sup>

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

Toxaphene	8001-35-2	BIODG or CMBST	2.6 and meet Section 728.148 standards <sup>8</sup>
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D016<sup>9</sup>

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

2,4-D (2,4-dichloro- phenoxyacetic acid)	94-75-7	CHOXD; BIODG; or CMBST	10 and meet Section 728.148 standards <sup>8</sup>
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D017<sup>9</sup>

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

2,4,5-TP (Silvex)	93-72-1	CHOXD or CMBST	7.9 and meet Section 728.148 standards <sup>8</sup>
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D018<sup>9</sup>

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

Benzene	71-43-2	0.14 and meet Section 728.148 standards <sup>8</sup>	10 and meet Section 728.148 standards <sup>8</sup>
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D019<sup>9</sup>

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

Carbon tetrachloride	56-23-5	0.057 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>
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D020<sup>9</sup>

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

Chlordane ( $\alpha$ and $\chi$ isomers)	57-74-9	0.0033 and meet Section 728.148 standards <sup>8</sup>	0.26 and meet Section 728.148 standards <sup>8</sup>
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D021<sup>9</sup>

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

Chlorobenzene	108-90-7	0.057 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>
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D022<sup>9</sup>

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

Chloroform	67-66-3	0.046 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>
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D023<sup>9</sup>

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

o-Cresol	95-48-7	0.11 and meet Section 728.148 standards <sup>8</sup>	5.6 and meet Section 728.148 standards <sup>8</sup>
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D024<sup>9</sup>

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

m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77 and meet Section 728.148 standards <sup>8</sup>	5.6 and meet Section 728.148 standards <sup>8</sup>
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D025<sup>9</sup>

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

p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77 and meet Section 728.148 standards <sup>8</sup>	5.6 and meet Section 728.148 standards <sup>8</sup>
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D026<sup>9</sup>

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

Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)	1319-77-3	0.88 and meet Section 728.148 standards <sup>8</sup>	11.2 and meet Section 728.148 standards <sup>8</sup>
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D027<sup>9</sup>

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

p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	0.090 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>
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D028<sup>9</sup>

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

1,2-Dichloroethane	107-06-2	0.21 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>
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D029<sup>9</sup>

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

1,1-Dichloroethylene	75-35-4	0.025 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>
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D030<sup>9</sup>

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

2,4-Dinitrotoluene	121-14-2	0.32 and meet Section 728.148 standards <sup>8</sup>	140 and meet Section 728.148 standards <sup>8</sup>
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D031<sup>9</sup>

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

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

D032<sup>9</sup>

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

Hexachlorobenzene	118-74-1	0.055 and meet Section 728.148 standards <sup>8</sup>	10 and meet Section 728.148 standards <sup>8</sup>
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D033<sup>9</sup>

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

Hexachlorobutadiene	87-68-3	0.055 and meet Section 728.148 standards <sup>8</sup>	5.6 and meet Section 728.148 standards <sup>8</sup>
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D034<sup>9</sup>

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

Hexachloroethane	67-72-1	0.055 and meet Section 728.148 standards <sup>8</sup>	30 and meet Section 728.148 standards <sup>8</sup>
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D035<sup>9</sup>

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

Methyl ethyl ketone	78-93-3	0.28 and meet Section 728.148 standards <sup>8</sup>	36 and meet Section 728.148 standards <sup>8</sup>
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D036<sup>9</sup>

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

Nitrobenzene	98-95-3	0.068 and meet Section 728.148 standards <sup>8</sup>	14 and meet Section 728.148 standards <sup>8</sup>
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D037<sup>9</sup>

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

Pentachlorophenol	87-86-5	0.089 and meet Section 728.148 standards <sup>8</sup>	7.4 and meet Section 728.148 standards <sup>8</sup>
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D038<sup>9</sup>

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

Pyridine	110-86-1	0.014 and meet Section 728.148 standards <sup>8</sup>	16 and meet Section 728.148 standards <sup>8</sup>
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D039<sup>9</sup>

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

Tetrachloroethylene	127-18-4	0.056 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>
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D040<sup>9</sup>

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

Trichloroethylene	79-01-6	0.054 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>
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D041<sup>9</sup>

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

2,4,5-Trichlorophenol	95-95-4	0.18 and meet Section 728.148 standards <sup>8</sup>	7.4 and meet Section 728.148 standards <sup>8</sup>
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D042<sup>9</sup>

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

2,4,6-Trichlorophenol	88-06-2	0.035 and meet Section 728.148 standards <sup>8</sup>	7.4 and meet Section 728.148 standards <sup>8</sup>
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D043<sup>9</sup>

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

Vinyl chloride	75-01-4	0.27 and meet Section 728.148 standards <sup>8</sup>	6.0 and meet Section 728.148 standards <sup>8</sup>
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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)	1319-77-3	0.88	11.2
(sum of o-, m-, and p-cresol concentrations)			
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 &amp; F005

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

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

## F001, F002, F003, F004 &amp; 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 &amp; 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	0.11 mg/ℓ TCLP
Chromium (Total)	7440-47-3	2.77	0.60 mg/ℓ TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30
Lead	7439-92-1	0.69	0.75 mg/ℓ TCLP
Nickel	7440-02-0	3.98	11 mg/ℓ TCLP
Silver	7440-22-4	NA	0.14 mg/ℓ TCLP

## F007

Spent cyanide plating bath solutions from electroplating operations.

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

## F008

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

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

## F009

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

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

## F010

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

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

## F011

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

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



## F012

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

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

## F019

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

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

## F020, F021, F022, F023, F026

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

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

2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
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## F024

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

All F024 wastes	NA	CMBST <sup>11</sup>	CMBST <sup>11</sup>
2-Chloro-1,3-butadiene	126-99-8	0.057	0.28
3-Chloropropylene	107-05-1	0.036	30
1,1-Dichloroethane	75-34-3	0.059	6.0
1,2-Dichloroethane	107-06-2	0.21	6.0
1,2-Dichloropropane	78-87-5	0.85	18
cis-1,3-Dichloropropylene	10061-01-5	0.036	18
trans-1,3-Dichloropropylene	10061-02-6	0.036	18
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Hexachloroethane	67-72-1	0.055	30
Chromium (Total)	7440-47-3	2.77	0.60 mg/ℓ TCLP
Nickel	7440-02-0	3.98	11 mg/ℓ TCLP

## F025

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

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

## F025

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

Carbon tetrachloride	56-23-5	0.057	6.0
Chloroform	67-66-3	0.046	6.0
Hexachlorobenzene	118-74-1	0.055	10
Hexachlorobutadiene	87-68-3	0.055	5.6
Hexachloroethane	67-72-1	0.055	30

Methylene chloride	75-9-2	0.089	30
1,1,2-Trichloroethane	79-00-5	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0
Vinyl chloride	75-01-4	0.27	6.0

## F027

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

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

## F028

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

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

## F032

Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 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 or penta-chlorophenol.

Acenaphthene	83-32-9	0.059	3.4
Anthracene	120-12-7	0.059	3.4
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(b)fluoranthene (difficult to distinguish from benzo(k) fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b) fluoranthene)	207-08-9	0.11	6.8
Benzo(a)pyrene	50-32-8	0.061	3.4
Chrysene	218-01-9	0.059	3.4
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
2-4-Dimethyl phenol	105-67-9	0.036	14
Fluorene	86-73-7	0.059	3.4
Hexachlorodibenzo-p-dioxins	NA	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
Hexachlorodibenzofurans	NA	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4
Naphthalene	91-20-3	0.059	5.6
Pentachlorodibenzo-p-dioxins	NA	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
Pentachlorodibenzofurans	NA	0.000035 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
Pentachlorophenol	87-86-5	0.089	7.4
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyrene	129-00-0	0.067	8.2
Tetrachlorodibenzo-p-dioxins	NA	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
Tetrachlorodibenzofurans	NA	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
Arsenic	7440-38-2	1.4	5.0 mg/ℓ TCLP
Chromium (Total)	7440-47-3	2.77	0.60 mg/ℓ TCLP

## F034

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

Acenaphthene	83-32-9	0.059	3.4
Anthracene	120-12-7	0.059	3.4
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
Benzo(a)pyrene	50-32-8	0.061	3.4
Chrysene	218-01-9	0.059	3.4
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
Fluorene	86-73-7	0.059	3.4
Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Pyrene	129-00-0	0.067	8.2
Arsenic	7440-38-2	1.4	5.0 mg/ℓ TCLP
Chromium (Total)	7440-47-3	2.77	0.60 mg/ℓ TCLP

## F035

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

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

## F037

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

Acenaphthene	83-32-9	0.059	NA
Anthracene	120-12-7	0.059	3.4
Benzene	71-43-2	0.14	10
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(a)pyrene	50-32-8	0.061	3.4
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Chrysene	218-01-9	0.059	3.4
Di-n-butyl phthalate	84-74-2	0.057	28
Ethylbenzene	100-41-4	0.057	10
Fluorene	86-73-7	0.059	NA
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyrene	129-00-0	0.067	8.2
Toluene	108-88-3	0.080	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Chromium (Total)	7440-47-3	2.77	0.60 mg/ℓ TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	11 mg/ℓ TCLP

## F038

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

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

## F039

Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under Subpart D 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-Acetylaminofluorene	53-96-3	0.059	140
Acrolein	107-02-8	0.29	NA
Acrylonitrile	107-13-1	0.24	84
Aldrin	309-00-2	0.021	0.066
4-Aminobiphenyl	92-67-1	0.13	NA
Aniline	62-53-3	0.81	14
o-Anisidine (2-methoxyaniline)	90-04-0	0.010	0.66
Anthracene	120-12-7	0.059	3.4
Aramite	140-57-8	0.36	NA
α-BHC	319-84-6	0.00014	0.066
β-BHC	319-85-7	0.00014	0.066
δ-BHC	319-86-8	0.023	0.066
γ-BHC	58-89-9	0.0017	0.066
Benzene	71-43-2	0.14	10
Benz(a)anthracene	56-55-3	0.059	3.4

Benzo(b)fluoranthene (difficult to distinguish from benzo(k)-fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)-fluoranthene)	207-08-9	0.11	6.8
Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
Benzo(a)pyrene	50-32-8	0.061	3.4
Bromodichloromethane	75-27-4	0.35	15
Methyl bromide (Bromo-methane)	74-83-9	0.11	15
4-Bromophenyl phenyl ether	101-55-3	0.055	15
n-Butyl alcohol	71-36-3	5.6	2.6
Butyl benzyl phthalate	85-68-7	0.017	28
2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	88-85-7	0.066	2.5
Carbon disulfide	75-15-0	3.8	NA
Carbon tetrachloride	56-23-5	0.057	6.0
Chlordane ( $\alpha$ and $\chi$ isomers)	57-74-9	0.0033	0.26
p-Chloroaniline	106-47-8	0.46	16
Chlorobenzene	108-90-7	0.057	6.0
Chlorobenzilate	510-15-6	0.10	NA
2-Chloro-1,3-butadiene	126-99-8	0.057	NA
Chlorodibromomethane	124-48-1	0.057	15
Chloroethane	75-00-3	0.27	6.0
bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2
bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
Chloroform	67-66-3	0.046	6.0
bis(2-Chloroisopropyl)ether	39638-32-9	0.055	7.2
p-Chloro-m-cresol	59-50-7	0.018	14
Chloromethane (Methyl chloride)	74-87-3	0.19	30
2-Chloronaphthalene	91-58-7	0.055	5.6
2-Chlorophenol	95-57-8	0.044	5.7
3-Chloropropylene	107-05-1	0.036	30
Chrysene	218-01-9	0.059	3.4
p-Cresidine	120-71-8	0.010	0.66
o-Cresol	95-48-7	0.11	5.6
m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
Cyclohexanone	108-94-1	0.36	NA
1,2-Dibromo-3-chloropropane	96-12-8	0.11	15



Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
Dibromomethane	74-95-3	0.11	15
2,4-D (2,4-Dichlorophenoxy-acetic acid)	94-75-7	0.72	10
o,p'-DDD	53-19-0	0.023	0.087
p,p'-DDD	72-54-8	0.023	0.087
o,p'-DDE	3424-82-6	0.031	0.087
p,p'-DDE	72-55-9	0.031	0.087
o,p'-DDT	789-02-6	0.0039	0.087
p,p'-DDT	50-29-3	0.0039	0.087
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
Dibenz(a,e)pyrene	192-65-4	0.061	NA
m-Dichlorobenzene	541-73-1	0.036	6.0
o-Dichlorobenzene	95-50-1	0.088	6.0
p-Dichlorobenzene	106-46-7	0.090	6.0
Dichlorodifluoromethane	75-71-8	0.23	7.2
1,1-Dichloroethane	75-34-3	0.059	6.0
1,2-Dichloroethane	107-06-2	0.21	6.0
1,1-Dichloroethylene	75-35-4	0.025	6.0
trans-1,2-Dichloroethylene	156-60-5	0.054	30
2,4-Dichlorophenol	120-83-2	0.044	14
2,6-Dichlorophenol	87-65-0	0.044	14
1,2-Dichloropropane	78-87-5	0.85	18
cis-1,3-Dichloropropylene	10061-01-5	0.036	18
trans-1,3-Dichloropropylene	10061-02-6	0.036	18
Dieldrin	60-57-1	0.017	0.13
2,4-Dimethylaniline (2,4-xylidine)	95-68-1	0.010	0.66
Diethyl phthalate	84-66-2	0.20	28
2,4-Dimethyl phenol	105-67-9	0.036	14
Dimethyl phthalate	131-11-3	0.047	28
Di-n-butyl phthalate	84-74-2	0.057	28
1,4-Dinitrobenzene	100-25-4	0.32	2.3
4,6-Dinitro-o-cresol	534-52-1	0.28	160
2,4-Dinitrophenol	51-28-5	0.12	160
2,4-Dinitrotoluene	121-14-2	0.32	140
2,6-Dinitrotoluene	606-20-2	0.55	28
Di-n-octyl phthalate	117-84-0	0.017	28
Di-n-propylnitrosamine	621-64-7	0.40	14
1,4-Dioxane	123-91-1	12.0	170
Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	NA

Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	NA
1,2-Diphenylhydrazine	122-66-7	0.087	NA
Disulfoton	298-04-4	0.017	6.2
Endosulfan I	939-98-8	0.023	0.066
Endosulfan II	33213-6-5	0.029	0.13
Endosulfan sulfate	1031-07-8	0.029	0.13
Endrin	72-20-8	0.0028	0.13
Endrin aldehyde	7421-93-4	0.025	0.13
Ethyl acetate	141-78-6	0.34	33
Ethyl cyanide (Propanenitrile)	107-12-0	0.24	360
Ethyl benzene	100-41-4	0.057	10
Ethyl ether	60-29-7	0.12	160
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Ethyl methacrylate	97-63-2	0.14	160
Ethylene oxide	75-21-8	0.12	NA
Famphur	52-85-7	0.017	15
Fluoranthene	206-44-0	0.068	3.4
Fluorene	86-73-7	0.059	3.4
Heptachlor	76-44-8	0.0012	0.066
1,2,3,4,6,7,8-Heptachloro-dibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	35822-46-9	0.000035	0.0025
1,2,3,4,6,7,8-Heptachloro-dibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562-39-4	0.000035	0.0025
1,2,3,4,7,8,9-Heptachloro-dibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673-89-7	0.000035	0.0025
Heptachlor epoxide	1024-57-3	0.016	0.066
Hexachlorobenzene	118-74-1	0.055	10
Hexachlorobutadiene	87-68-3	0.055	5.6
Hexachlorocyclopentadiene	77-47-4	0.057	2.4
HxCDDs (All Hexachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachloro-dibenzofurans)	55684-94-1	0.000063	0.001
Hexachloroethane	67-72-1	0.055	30
Hexachloropropylene	1888-71-7	0.035	30
Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4
Iodomethane	74-88-4	0.19	65
Isobutyl alcohol	78-83-1	5.6	170
Isodrin	465-73-6	0.021	0.066
Isosafrole	120-58-1	0.081	2.6
Kepone	143-50-8	0.0011	0.13

Methacrylonitrile	126-98-7	0.24	84
Methanol	67-56-1	5.6	NA
Methapyrilene	91-80-5	0.081	1.5
Methoxychlor	72-43-5	0.25	0.18
3-Methylcholanthrene	56-49-5	0.0055	15
4,4-Methylene bis(2-chloro-aniline)	101-14-4	0.50	30
Methylene chloride	75-09-2	0.089	30
Methyl ethyl ketone	78-93-3	0.28	36
Methyl isobutyl ketone	108-10-1	0.14	33
Methyl methacrylate	80-62-6	0.14	160
Methyl methansulfonate	66-27-3	0.018	NA
Methyl parathion	298-00-0	0.014	4.6
Naphthalene	91-20-3	0.059	5.6
2-Naphthylamine	91-59-8	0.52	NA
p-Nitroaniline	100-01-6	0.028	28
Nitrobenzene	98-95-3	0.068	14
5-Nitro-o-toluidine	99-55-8	0.32	28
p-Nitrophenol	100-02-7	0.12	29
N-Nitrosodiethylamine	55-18-5	0.40	28
N-Nitrosodimethylamine	62-75-9	0.40	NA
N-Nitroso-di-n-butylamine	924-16-3	0.40	17
N-Nitrosomethylethylamine	10595-95-6	0.40	2.3
N-Nitrosomorpholine	59-89-2	0.40	2.3
N-Nitrosopiperidine	100-75-4	0.013	35
N-Nitrosopyrrolidine	930-55-2	0.013	35
1,2,3,4,6,7,8,9-Octachloro-dibenzo-p-dioxin (1,2,3,4,6,7,8,9-OCDD)			
<u>1,2,3,4,6,7,8,9-Octachlorobibenzofuran (OCDF)</u>	<u>39001-02-0</u>	<u>0.000063</u>	<u>0.005</u>
Parathion	56-38-2	0.014	4.6
Total PCBs (sum of all PCB isomers, or all Aroclors)	1336-36-3	0.10	10
Pentachlorobenzene	608-93-5	0.055	10
PeCDDs (All Pentachloro-dibenzo-p-dioxins)	36088-22-9	0.000063	0.001
PeCDFs (All Pentachloro-dibenzofurans)	30402-15-4	0.000035	0.001
Pentachloronitrobenzene	82-68-8	0.055	4.8
Pentachlorophenol	87-86-5	0.089	7.4
Phenacetin	62-44-2	0.081	16
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2

1,3-Phenylenediamine	108-45-2	0.010	0.66
Phorate	298-02-2	0.021	4.6
Phthalic anhydride	85-44-9	0.055	NA
Pronamide	23950-58-5	0.093	1.5
Pyrene	129-00-0	0.067	8.2
Pyridine	110-86-1	0.014	16
Safrole	94-59-7	0.081	22
Silvex (2,4,5-TP)	93-72-1	0.72	7.9
2,4,5-T	93-76-5	0.72	7.9
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
TCDDs (All Tetrachloro-dibenzo-p-dioxins)	41903-57-5	0.000063	0.001
TCDFs (All Tetrachloro-dibenzofurans)	55722-27-5	0.000063	0.001
1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
Toluene	108-88-3	0.080	10
Toxaphene	8001-35-2	0.0095	2.6
Bromoform (Tribromomethane)	75-25-2	0.63	15
1,2,4-Trichlorobenzene	120-82-1	0.055	19
1,1,1-Trichloroethane	71-55-6	0.054	6.0
1,1,2-Trichloroethane	79-00-5	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0
Trichloromonofluoromethane	75-69-4	0.020	30
2,4,5-Trichlorophenol	95-95-4	0.18	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
1,2,3-Trichloropropane	96-18-4	0.85	30
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.057	30
tris(2,3-Dibromopropyl)phosphate	126-72-7	0.11	NA
Vinyl chloride	75-01-4	0.27	6.0
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Antimony	7440-36-0	1.9	1.15 mg/ℓ TCLP
Arsenic	7440-38-2	1.4	5.0 mg/ℓ TCLP
Barium	7440-39-3	1.2	21 mg/ℓ TCLP
Beryllium	7440-41-7	0.82	NA
Cadmium	7440-43-9	0.69	0.11 mg/ℓ TCLP
Chromium (Total)	7440-47-3	2.77	0.60 mg/ℓ TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	NA
Fluoride	16964-48-8	35	NA

Lead	7439-92-1	0.69	0.75 mg/ℓ TCLP
Mercury	7439-97-6	0.15	0.025 mg/ℓ TCLP
Nickel	7440-02-0	3.98	11 mg/ℓ TCLP
Selenium	7782-49-2	0.82	5.7 mg/ℓ TCLP
Silver	7440-22-4	0.43	0.14 mg/ℓ TCLP
Sulfide	8496-25-8	14	NA
Thallium	7440-28-0	1.4	NA
Vanadium	7440-62-2	4.3	NA

## K001

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

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

## K002

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

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

## K003

Wastewater treatment sludge from the production of molybdate orange pigments.

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

## K004

Wastewater treatment sludge from the production of zinc yellow pigments.

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

## K005

Wastewater treatment sludge from the production of chrome green pigments.

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

## K006

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

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

## K006

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

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

## K007

Wastewater treatment sludge from the production of iron blue pigments.

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

## K008

Oven residue from the production of chrome oxide green pigments.

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

## K009

Distillation bottoms from the production of acetaldehyde from ethylene.

Chloroform	67-66-3	0.046	6.0
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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)-fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)-fluoranthene)	207-08-9	0.11	6.8
Phenanthrene	85-01-8	0.059	5.6
Toluene	108-88-3	0.080	10
Chromium (Total)	7440-47-3	2.77	0.60 mg/ℓ TCLP
Nickel	7440-02-0	3.98	11 mg/ℓ TCLP

## K016

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

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

## K017

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

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

## K018

Heavy ends from the fractionation column in ethyl chloride production.

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

## K019

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

bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
Chlorobenzene	108-90-7	0.057	6.0
Chloroform	67-66-3	0.046	6.0
p-Dichlorobenzene	106-46-7	0.090	NA

1,2-Dichloroethane	107-06-2	0.21	6.0
Fluorene	86-73-7	0.059	NA
Hexachloroethane	67-72-1	0.055	30
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	NA
Tetrachloroethylene	127-18-4	0.056	6.0
1,2,4-Trichlorobenzene	120-82-1	0.055	19
1,1,1-Trichloroethane	71-55-6	0.054	6.0

## K020

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

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

## K021

Aqueous spent antimony catalyst waste from fluoromethanes production.

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

## K022

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

Toluene	108-88-3	0.080	10
Acetophenone	96-86-2	0.010	9.7
Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	13
Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	13
Phenol	108-95-2	0.039	6.2
Chromium (Total)	7440-47-3	2.77	0.60 mg/ℓ TCLP
Nickel	7440-02-0	3.98	11 mg/ℓ TCLP

## K023

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

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



## K024

Distillation bottoms from the production of phthalic anhydride from naphthalene.

Phthalic anhydride (measured as 100-21-0 0.055 28

Phthalic acid or Terephthalic acid)

Phthalic anhydride (measured as 85-44-9 0.055 28

Phthalic acid or Terephthalic acid)

## K025

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

NA NA LLEXT fb SSTRP CMBST  
fb CARBN; or  
CMBST

## K026

Stripping still tails from the production of methyl ethyl pyridines.

NA NA CMBST CMBST

## K027

Centrifuge and distillation residues from toluene diisocyanate production.

NA NA CARBN; or CMBST  
CMBST

## K028

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

1,1-Dichloroethane 75-34-3 0.059 6.0

trans-1,2-Dichloroethylene 156-60-5 0.054 30

Hexachlorobutadiene 87-68-3 0.055 5.6

Hexachloroethane 67-72-1 0.055 30

Pentachloroethane 76-01-7 NA 6.0

1,1,1,2-Tetrachloroethane 630-20-6 0.057 6.0

1,1,2,2-Tetrachloroethane 79-34-6 0.057 6.0

Tetrachloroethylene 127-18-4 0.056 6.0

1,1,1-Trichloroethane 71-55-6 0.054 6.0

1,1,2-Trichloroethane 79-00-5 0.054 6.0

Cadmium 7440-43-9 0.69 NA

Chromium(Total) 7440-47-3 2.77 0.60 mg/l TCLP

Lead 7439-92-1 0.69 0.75 mg/l TCLP

Nickel 7440-02-0 3.98 11 mg/l TCLP

## K029

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

Chloroform 67-66-3 0.046 6.0

1,2-Dichloroethane 107-06-2 0.21 6.0

1,1-Dichloroethylene 75-35-4 0.025 6.0

1,1,1-Trichloroethane 71-55-6 0.054 6.0

Vinyl chloride	75-01-4	0.27	6.0
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## K030

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

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

## K031

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

Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
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## K032

Wastewater treatment sludge from the production of chlordane.

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

## K033

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

Hexachlorocyclopentadiene	77-47-4	0.057	2.4
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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 (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
Dibenz(a,h)anthracene	53-70-3	NA	8.2
Fluoranthene	206-44-0	0.068	3.4
Fluorene	86-73-7	NA	3.4
Indeno(1,2,3-cd)pyrene	193-39-5	NA	3.4
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyrene	129-00-0	0.067	8.2

## K036

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

Disulfoton	298-04-4	0.017	6.2
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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
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## K039

Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate.

NA	NA	CARBN; or CMBST	CMBST
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## K040

Wastewater treatment sludge from the production of phorate.

Phorate	298-02-2	0.021	4.6
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## K041

Wastewater treatment sludge from the production of toxaphene.

Toxaphene	8001-35-2	0.0095	2.6
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## K042

Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.

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

## K043

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

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

## K044

Wastewater treatment sludges from the manufacturing and processing of explosives.

NA	NA	DEACT	DEACT
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## K045

Spent carbon from the treatment of wastewater containing explosives.

NA	NA	DEACT	DEACT
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## K046

Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.

Lead	7439-92-1	0.69	0.75 mg/ℓ TCLP
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## K047

Pink or red water from TNT operations.

NA	NA	DEACT	DEACT
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## K048

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

Benzene	71-43-2	0.14	10
Benzo(a)pyrene	50-32-8	0.061	3.4
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Chrysene	218-01-9	0.059	3.4
Di-n-butyl phthalate	84-74-2	0.057	28
Ethylbenzene	100-41-4	0.057	10

Fluorene	86-73-7	0.059	NA
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyrene	129-00-0	0.067	8.2
Toluene	108-88-33	0.080	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Chromium (Total)	7440-47-3	2.77	0.60 mg/ℓ TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	11 mg/ℓ TCLP

## K049

Slop oil emulsion solids from the petroleum refining industry.

Anthracene	120-12-7	0.059	3.4
Benzene	71-43-2	0.14	10
Benzo(a)pyrene	50-32-8	0.061	3.4
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Carbon disulfide	75-15-0	3.8	NA
Chrysene	<del>2218-01-9</del> 218-01-9	0.059	3.4
2,4-Dimethylphenol	105-67-9	0.036	NA
Ethylbenzene	100-41-4	0.057	10
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyrene	129-00-0	0.067	8.2
Toluene	108-88-3	0.080	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Chromium (Total)	7440-47-3	2.77	0.60 mg/ℓ TCLP
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	11 mg/ℓ TCLP

## K050

Heat exchanger bundle cleaning sludge from the petroleum refining industry.

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

## K051

API separator sludge from the petroleum refining industry.

Acenaphthene	83-32-9	0.059	NA
Anthracene	120-12-7	0.059	3.4
Benz(a)anthracene	56-55-3	0.059	3.4
Benzene	71-43-2	0.14	10
Benzo(a)pyrene	50-32-8	0.061	3.4
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Chrysene	<del>2218-01-9</del> <u>218-01-9</u>	0.059	3.4
Di-n-butyl phthalate	105-67-9	0.057	28
Ethylbenzene	100-41-4	0.057	10
Fluorene	86-73-7	0.059	NA
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyrene	129-00-0	0.067	8.2
Toluene	108-88-3	0.08	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Chromium (Total)	7440-47-3	2.77	0.60 mg/ℓ TCLP
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	11 mg/ℓ TCLP

## K052

Tank bottoms (leaded) from the petroleum refining industry.

Benzene	71-43-2	0.14	10
Benzo(a)pyrene	50-32-8	0.061	3.4
o-Cresol	95-48-7	0.11	5.6
m-Cresol (difficult to distinguish from p- cresol)	108-39-4	0.77	5.6
p-Cresol (difficult to distinguish from m- cresol)	106-44-5	0.77	5.6
2,4-Dimethylphenol	105-67-9	0.036	NA
Ethylbenzene	100-41-4	0.057	10
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Toluene	108-88-3	0.08	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Chromium (Total)	7440-47-3	2.77	0.60 mg/ℓ TCLP

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

## K060

Ammonia still lime sludge from coking operations.

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

## K061

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

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

## K062

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

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

## K069

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

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

## K069

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

NA	NA	NA	RLEAD
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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-Trichloroethane	71-55-6	0.054	6.0

## K083

Distillation bottoms from aniline production.

Aniline	62-53-3	0.81	14
Benzene	71-43-2	0.14	10
Cyclohexanone	108-94-1	0.36	NA
Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	13
Diphenylnitrosamine (difficult to distinguish from diphenyl- amine)	86-30-6	0.92	13
Nitrobenzene	98-95-3	0.068	14
Phenol	108-95-2	0.039	6.2
Nickel	7440-02-0	3.98	11 mg/ℓ TCLP

## K084

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

Arsenic	7440-38-2	1.4	5.0 mg/ℓ TCLP
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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-Tetrachlorobenzene	95-94-3	0.055	14
1,2,4-Trichlorobenzene	120-82-1	0.055	19

## K086

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

Acetone	67-64-1	0.28	160
Acetophenone	96-86-2	0.010	9.7
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
n-Butyl alcohol	71-36-3	5.6	2.6
Butylbenzyl phthalate	85-68-7	0.017	28
Cyclohexanone	108-94-1	0.36	NA
o-Dichlorobenzene	95-50-1	0.088	6.0
Diethyl phthalate	84-66-2	0.20	28
Dimethyl phthalate	131-11-3	0.047	28
Di-n-butyl phthalate	84-74-2	0.057	28
Di-n-octyl phthalate	117-84-0	0.017	28
Ethyl acetate	141-78-6	0.34	33
Ethylbenzene	100-41-4	0.057	10
Methanol	67-56-1	5.6	NA
Methyl ethyl ketone	78-93-3	0.28	36
Methyl isobutyl ketone	108-10-1	0.14	33
Methylene chloride	75-09-2	0.089	30
Naphthalene	91-20-3	0.059	5.6
Nitrobenzene	98-95-3	0.068	14
Toluene	108-88-3	0.080	10
1,1,1-Trichloroethane	71-55-6	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Chromium (Total)	7440-47-3	2.77	0.60 mg/ℓ TCLP
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Lead	7439-92-1	0.69	0.75 mg/ℓ TCLP

## K087

Decanter tank tar sludge from coking operations.

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

## K088

Spent potliners from primary aluminum reduction.

Acenaphthene	83-32-9	0.059	3.4
Anthracene	120-12-7	0.059	3.4
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(a)pyrene	50-32-8	0.061	3.4
Benzo(b)fluoranthene	205-99-2	0.11	6.8
Benzo(k)fluoranthene	207-08-9	0.11	6.8
Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
Chrysene	218-01-9	0.059	3.4
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
Fluoranthene	206-44-0	0.068	3.4
Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
Phenanthrene	85-01-8	0.059	5.6
Pyrene	129-00-0	0.067	8.2
Antimony	7440-36-0	1.9	1.15 mg/ℓ TCLP
Arsenic	7440-38-2	1.4	26.1 mg/ℓ
Barium	7440-39-3	1.2	21 mg/ℓ TCLP
Beryllium	7440-41-7	0.82	1.22 mg/ℓ TCLP
Cadmium	7440-43-9	0.69	0.11 mg/ℓ TCLP
Chromium (Total)	7440-47-3	2.77	0.60 mg/ℓ TCLP
Lead	7439-92-1	0.69	0.75 mg/ℓ TCLP
Mercury	7439-97-6	0.15	0.025 mg/ℓ TCLP
Nickel	7440-02-0	3.98	11 mg/ℓ TCLP
Selenium	7782-49-2	0.82	5.7 mg/ℓ TCLP
Silver	7440-22-4	0.43	0.14 mg/ℓ TCLP
Cyanide (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanide (Amenable) <sup>7</sup>	57-12-5	0.86	30
Fluoride	16984-48-8	35	NA

## K093

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

Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28
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Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28
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## 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
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Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28
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## K095

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

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

## K096

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

m-Dichlorobenzene	541-73-1	0.036	6.0
Pentachloroethane	76-01-7	0.055	6.0
1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
1,2,4-Trichlorobenzene	120-82-1	0.055	19
1,1,2-Trichloroethane	79-00-5	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0

## K097

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

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

## K098

Untreated process wastewater from the production of toxaphene.

Toxaphene	8001-35-2	0.0095	2.6
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## K099

Untreated wastewater from the production of 2,4-D.

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

## K100

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

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

## K101

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

o-Nitroaniline	88-74-4	0.27	14
Arsenic	7440-38-2	1.4	5.0 mg/ℓ TCLP
Cadmium	7440-43-9	0.69	NA
Lead	7439-92-1	0.69	NA
Mercury	7439-97-6	0.15	NA

## K102

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

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

## K103

Process residues from aniline extraction from the production of aniline.

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

Phenol	108-95-2	0.039	6.2
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## K104

Combined wastewater streams generated from nitrobenzene or aniline production.

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

## K105

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

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

## K106

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

Mercury	7439-97-6	NA	RMERC
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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 CHOXD fb CARBN; or BIODG fb CARBN	CMBST
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## K108

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

NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
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## K109

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

NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
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## K110

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

NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
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## K111

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

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

## K112

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

NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
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## 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	11 mg/ℓ TCLP
NA	NA	CARBN; or CMBST	CMBST

## K116

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

NA	NA	CARBN; or CMBST	CMBST
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## K117

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

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

## K118

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

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

## K123

Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salts.

NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
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## K124

Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts.

NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
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## 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
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## K126

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

NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
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## K131

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

Methyl bromide (Bromo-methane)	74-83-9	0.11	15
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## K132

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

Methyl bromide (Bromo-methane)	74-83-9	0.11	15
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## K136

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

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

## K141

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

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

## K142

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

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

## K143

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

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

## K144

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

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

## K145

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

Benzene	71-43-2	0.14	10
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(a)pyrene	50-32-8	0.061	3.4
Chrysene	218-01-9	0.059	3.4
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
Naphthalene	91-20-3	0.059	5.6

## K147

Tar storage tank residues from coal tar refining.

Benzene	71-43-2	0.14	10
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(a)pyrene	50-32-8	0.061	3.4

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

## K148

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

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

## K149

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

Chlorobenzene	108-90-7	0.057	6.0
Chloroform	67-66-3	0.046	6.0
Chloromethane	74-87-3	0.19	30
p-Dichlorobenzene	106-46-7	0.090	6.0
Hexachlorobenzene	118-74-1	0.055	10
Pentachlorobenzene	608-93-5	0.055	10
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
Toluene	108-88-3	0.080	10

## K150

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

Carbon tetrachloride	56-23-5	0.057	6.0
Chloroform	67-66-3	0.046	6.0
Chloromethane	74-87-3	0.19	30
p-Dichlorobenzene	106-46-7	0.090	6.0
Hexachlorobenzene	118-74-1	0.055	10

Pentachlorobenzene	608-93-5	0.055	10
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
1,1,2,2- Tetrachloroethane	79-34-5	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
1,2,4-Trichlorobenzene	120-82-1	0.055	19

## K151

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

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

## K156

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

Acetonitrile	75-05-8	5.6	1.8
Acetophenone	98-86-2	0.010	9.7
Aniline	62-53-3	0.81	14
Benomyl <sup>10</sup>	17804-35-2	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
Benzene	71-43-2	0.14	10
Carbaryl <sup>10</sup>	<del>63-25-21</del> <u>63-25-2</u>	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
Carbenzadim <sup>10</sup>	10605-21-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
Carbofuran <sup>10</sup>	1563-66-2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
Carbosulfan <sup>10</sup>	55285-14-8	0.028; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
Chlorobenzene	108-90-7	0.057	6.0
Chloroform	67-66-3	0.046	6.0
o-Dichlorobenzene	95-50-1	0.088	6.0

Methomyl <sup>10</sup>	16752-77-5	0.028; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
Methylene chloride	75-09-2	0.089	30
Methyl ethyl ketone	78-93-3	0.28	36
Naphthalene	91-20-3	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyridine	110-86-1	0.014	16
Toluene	108-88-3	0.080	10
Triethylamine	121-44-8	0.081; or CMBST, CHOXD, BIODG or CARBN	1.5; or CMBST

## K157

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

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

## K158

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

<u>Benomyl<sup>10</sup></u>	<u>17804-35-2</u>	<u>0.056; or CMBST, CHOXD, BIODG or CARBN</u>	<u>1.4; or CMBSTP</u>
Benzene	71-43-2	0.14	10
Carbenzadim <sup>10</sup>	10605-21-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
Carbofuran <sup>10</sup>	1563-66-2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
Carbosulfan <sup>10</sup>	55285-14-8	0.028; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
Chloroform	67-66-3	0.046	6.0
Methylene chloride	75-09-2	0.089	30

Phenol	108-95-2	0.039	6.2
K159			
Organics from the treatment of thiocarbamate wastes. <sup>10</sup>			
Benzene	71-43-2	0.14	10
Butylate <sup>10</sup>	2008-41-5	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
EPTC (Eptam) <sup>10</sup>	759-94-4	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
Molinate <sup>10</sup>	2212-67-1	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
Pebulate <sup>10</sup>	1114-71-2	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
Vernolate <sup>10</sup>	1929-77-7	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
K161			
Purification solids (including filtration, evaporation, and centrifugation solids), baghouse dust, and floor sweepings from the production of dithiocarbamate acids and their salts.			
Antimony	7440-36-0	1.9	1.15 <sup>11</sup>
Arsenic	7440-38-2	1.4	5.0 <sup>11</sup>
Carbon disulfide	75-15-0	3.8	4.8 <sup>11</sup>
Dithiocarbamates (total) <sup>10</sup>	137-30-4	0.028; or CMBST, CHOXD, BIODG or CARBN	28; or CMBST
Lead	7439-92-1	0.69	0.75 <sup>11</sup>
Nickel	7440-02-0	3.98	11 <sup>11</sup>
Selenium	7782-49-2	0.82	5.7 <sup>11</sup>
K169			
Crude oil tank sediment from petroleum refining operations.			
Benz(a)anthracene	56-55-3	0.059	3.4
Benzene	71-43-2	0.14	10
Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
Chrysene	218-01-9	0.059	3.4
Ethyl benzene	100-41-4	0.057	10
Fluorene	86-73-7	0.059	3.4
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	81-05-8	0.059	5.6
Pyrene	129-00-0	0.067	8.2
Toluene (Methyl Benzene)	108-88-3	0.080	10
Xylenes (Total)	1330-20-7	0.32	30

## K170

Clarified slurry oil sediment from petroleum refining operations.

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

## K171

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

Benz(a)anthracene	56-55-3	0.059	3.4
Benzene	71-43-2	0.14	10
Chrysene	218-01-9	0.059	3.4
Ethyl benzene	100-41-4	0.057	10
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	81-05-8	0.059	5.6
Pyrene	129-00-0	0.067	8.2
Toluene (Methyl Benzene)	108-88-3	0.080	10
Xylenes (Total)	1330-20-7	0.32	30
Arsenic	7740-38-2	1.4	5 mg/l TCLP
Nickel	7440-02-0	3.98	11.0 mg/l TCLP
Vanadium	7440-62-2	4.3	1.6 mg/l TCLP
Reactive sulfides	NA	DEACT	DEACT

## K172

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

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

## K174

Wastewater treatment sludge from the production of ethylene dichloride or vinyl chloride monomer.

1,2,3,4,6,7,8-Heptachloro-dibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	35822-46-9	0.000035 or CMBST <sup>11</sup>	0.0025 or CMBST <sup>11</sup>
1,2,3,4,6,7,8-Heptachloro-dibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562-39-4	0.000035 or CMBST <sup>11</sup>	0.0025 or CMBST <sup>11</sup>
1,2,3,4,7,8,9-Heptachloro-dibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673-89-7	0.000035 or CMBST <sup>11</sup>	0.0025 or CMBST <sup>11</sup>
All hexachlorodibenzo-p-dioxins (HxCDDs)	34465-46-8	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
All hexachlorodibenzofurans (HxCDFs)	55684-94-1	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
1,2,3,4,6,7,8,9-Octachloro-dibenzo-p-dioxin (1,2,3,4,6,7,8,9-OCDD)	3268-87-9	0.000063 or CMBST <sup>11</sup>	0.005 or CMBST <sup>11</sup>
1,2,3,4,6,7,8,9-Octachloro-dibenzofuran (1,2,3,4,6,7,8,9-OCDF)	39001-02-0	0.000063 or CMBST <sup>11</sup>	0.005 or CMBST <sup>11</sup>
All pentachlorodibenzo-p-dioxins (PeCDDs)	36088-22-9	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
All pentachlorodibenzofurans (PeCDFs)	30402-15-4	0.000035 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
All tetrachlorodibenzo-p-dioxins (TCDDs)	41903-57-5	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
All tetrachlorodibenzofurans (TCDFs)	55722-27-5	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
Arsenic	7440-36-0	1.4	5.0 mg/ℓ TCLP

## K175

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

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

## K175

All K175 wastewaters.

Mercury	7439-97-6	0.15	NA
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## K176

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

Antimony	7440-36-0	1.9	1.15 mg/ℓ TCLP
Arsenic	7440-38-2	1.4	5.0 mg/ℓ TCLP



Cadmium	7440-43-9	0.69	0.11 mg/ℓ TCLP
Lead	7439-92-1	0.69	0.75 mg/ℓ TCLP
Mercury	7439-97-6	0.15	0.025 mg/ℓ TCLP

## K177

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

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

## K178

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

1,2,3,4,6,7,8-Heptachloro-dibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	35822-46-9	0.000035 or CMBST <sup>11</sup>	0.0025 or CMBST <sup>11</sup>
1,2,3,4,6,7,8-Heptachloro-dibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562-39-4	0.000035 or CMBST <sup>11</sup>	0.0025 or CMBST <sup>11</sup>
1,2,3,4,7,8,9-Heptachloro-dibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673-89-7	0.000035 or CMBST <sup>11</sup>	0.0025 or CMBST <sup>11</sup>
HxCDDs (All Hexachloro-dibenzo-p-dioxins)	34465-46-8	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
HxCDFs (All Hexachloro-dibenzofurans)	55684-94-1	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
1,2,3,4,6,7,8,9-Octachloro-dibenzo-p-dioxin (1,2,3,4,6,7,8,9-OCDD)	3268-87-9	0.000063 or CMBST <sup>11</sup>	0.005 or CMBST <sup>11</sup>
1,2,3,4,6,7,8,9-Octachloro-dibenzofuran (OCDF)	39001-02-0	0.000063 or CMBST <sup>11</sup>	0.005 or CMBST <sup>11</sup>
PeCDDs (All Pentachloro-dibenzo-p-dioxins)	36088-22-9	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
PeCDFs (All Pentachloro-dibenzofurans)	30402-15-4	0.000035 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
TCDDs (All Tetrachloro-dibenzo-p-dioxins)	41903-57-5	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
TCDFs (All Tetrachloro-dibenzofurans)	55722-27-5	0.000063 or CMBST <sup>11</sup>	0.001 or CMBST <sup>11</sup>
Thallium	7440-28-0	1.4	0.20 mg/ℓ TCLP

## K181

Nonwastewaters from the production of dyes or pigments (including nonwastewaters commingled at the point of generation with nonwastewaters from other processes) that, at the point of generation, contain mass loadings of any of the constituents identified in Section

721.132(c) which are equal to or greater than the corresponding Section 721.132(c) levels, as determined on a calendar-year basis.

Aniline	62-53-3	0.81	14
o-Anisidine (2-methoxyaniline)	90-04-0	0.010	0.66
4-Chloroaniline	106-47-8	0.46	16
p-Cresidine	120-71-8	0.010	0.66
2,4-Dimethylaniline (2,4-xylidine)	95-68-1	0.010	0.66
1,2-Phenylenediamine	95-54-5	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN
1,3-Phenylenediamine	108-45-2	0.010	0.66
P001			
Warfarin, & salts, when present at concentrations greater than 0.3 percent.			
Warfarin	81-81-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P002			
1-Acetyl-2-thiourea.			
1-Acetyl-2-thiourea	591-08-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P003			
Acrolein.			
Acrolein	107-02-8	0.29	CMBST
P004			
Aldrin.			
Aldrin	309-00-2	0.021	0.066
P005			
Allyl alcohol.			
Allyl alcohol	107-18-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

P006			
Aluminum phosphide.			
Aluminum phosphide	20859-73-8	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
P007			
5-Aminomethyl-3-isoxazolol.			
5-Aminomethyl-3-isoxazolol	2763-96-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P008			
4-Aminopyridine.			
4-Aminopyridine	504-24-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P009			
Ammonium picrate.			
Ammonium picrate	131-74-8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P010			
Arsenic acid.			
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
P011			
Arsenic pentoxide.			
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
P012			
Arsenic trioxide.			
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
P013			
Barium cyanide.			
Barium	7440-39-3	NA	21 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-Chloropropionitrile	542-76-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P028 Benzyl chloride. Benzyl chloride	100-44-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P029 Copper cyanide. Cyanides (Total) <sup>7</sup> Cyanides (Amenable) <sup>7</sup>	57-12-5 57-12-5	1.2 0.86	590 30
P030 Cyanides (soluble salts and complexes). Cyanides (Total) <sup>7</sup> Cyanides (Amenable) <sup>7</sup>	57-12-5 57-12-5	1.2 0.86	590 30

P031 Cyanogen. Cyanogen	460-19-5	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
P033 Cyanogen chloride. Cyanogen chloride	506-77-4	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
P034 2-Cyclohexyl-4,6-dinitrophenol. 2-Cyclohexyl-4,6-dinitrophenol	131-89-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P036 Dichlorophenylarsine. Arsenic	7440-38-2	1.4	5.0 mg/ℓ TCLP
P037 Dieldrin. Dieldrin	60-57-1	0.017	0.13
P038 Diethylarsine. Arsenic	7440-38-2	1.4	5.0 mg/ℓ TCLP
P039 Disulfoton. Disulfoton	298-04-4	0.017	6.2
P040 O,O-Diethyl-O-pyrazinyl-phosphorothioate. O,O-Diethyl-O-pyrazinyl- phosphorothioate	297-97-2	CARBN; or CMBST	CMBST
P041 Diethyl-p-nitrophenyl phosphate. Diethyl-p-nitrophenyl phosphate	311-45-5	CARBN; or CMBST	CMBST

P042 Epinephrine. Epinephrine	51-43-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P043 Diisopropylfluorophosphate (DFP). Diisopropylfluorophosphate (DFP)	55-91-4	CARBN; or CMBST	CMBST
P044 Dimethoate. Dimethoate	60-51-5	CARBN; or CMBST	CMBST
P045 Thiofanox. Thiofanox	39196-18-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P046 $\alpha,\alpha$ -Dimethylphenethylamine. $\alpha,\alpha$ -Dimethylphenethylamine	122-09-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P047 4,6-Dinitro-o-cresol. 4,6-Dinitro-o-cresol	543-52-1	0.28	160
P047 4,6-Dinitro-o-cresol salts. NA	NA	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P048 2,4-Dinitrophenol. 2,4-Dinitrophenol	51-28-5	0.12	160

P049				
Dithiobiuret.				
Dithiobiuret	541-53-7	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
P050				
Endosulfan.				
Endosulfan I	939-98-8	0.023		0.066
Endosulfan II	33213-6-5	0.029		0.13
Endosulfan sulfate	1031-07-8	0.029		0.13
P051				
Endrin.				
Endrin	72-20-8	0.0028		0.13
Endrin aldehyde	7421-93-4	0.025		0.13
P054				
Aziridine.				
Aziridine	151-56-4	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
P056				
Fluorine.				
Fluoride (measured in wastewaters only)	<del>16964-48-8</del> <u>16984-48-8</u>	35		ADGAS fb NEUTR
P057				
Fluoroacetamide.				
Fluoroacetamide	640-19-7	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
P058				
Fluoroacetic acid, sodium salt.				
Fluoroacetic acid, sodium salt	62-74-8	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
P059				
Heptachlor.				
Heptachlor	76-44-8	0.0012		0.066



Heptachlor epoxide	1024-57-3	0.016	0.066
P060			
Isodrin.			
Isodrin	465-73-6	0.021	0.066
P062			
Hexaethyl tetraphosphate.			
Hexaethyl tetraphosphate	757-58-4	CARBON; or CMBST	CMBST
P063			
Hydrogen cyanide.			
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30
P064			
Isocyanic acid, ethyl ester.			
Isocyanic acid, ethyl ester	624-83-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P065			
P065 (mercury fulminate) nonwastewaters, regardless of their total mercury content, that are not incinerator residues or are not residues from RMERC.			
Mercury	7439-97-6	NA	IMERC
P065			
P065 (mercury fulminate) nonwastewaters that are either incinerator residues or are residues from RMERC; and contain greater than or equal to 260 mg/kg total mercury.			
Mercury	7339-97-6	NA	RMERC
P065			
P065 (mercury fulminate) nonwastewaters that are residues from RMERC and contain less than 260 mg/kg total mercury.			
Mercury	7439-97-6	NA	0.20 mg/l TCLP
P065			
P065 (mercury fulminate) nonwastewaters that are incinerator residues and contain less than 260 mg/kg total mercury.			
Mercury	7439-97-6	NA	0.025 mg/l TCLP
P065			
All P065 (mercury fulminate) wastewaters.			
Mercury	7439-97-6	0.15	NA

P066 Methomyl. Methomyl	16752-77-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P067 2-Methyl-aziridine. 2-Methyl-aziridine	75-55-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P068 Methyl hydrazine. Methyl hydrazine	60-34-4	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED, or CMBST
P069 2-Methylactonitrile. 2-Methylactonitrile	75-86-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P070 Aldicarb. Aldicarb	116-06-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P071 Methyl parathion. Methyl parathion	298-00-0	0.014	4.6
P072 1-Naphthyl-2-thiourea. 1-Naphthyl-2-thiourea	86-88-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

P073			
Nickel carbonyl.			
Nickel	7440-02-0	3.98	11 mg/ℓ TCLP
P074			
Nickel cyanide.			
Cyanides (Total) <sup>7</sup>	57-12-5	1.2	590
Cyanides (Amenable) <sup>7</sup>	57-12-5	0.86	30
Nickel	7440-02-0	3.98	11 mg/ℓ TCLP
P075			
Nicotine and salts.			
Nicotine and salts	54-11-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P076			
Nitric oxide.			
Nitric oxide	10102-43-9	ADGAS	ADGAS
P077			
p-Nitroaniline.			
p-Nitroaniline	100-01-6	0.028	28
P078			
Nitrogen dioxide.			
Nitrogen dioxide	10102-44-0	ADGAS	ADGAS
P081			
Nitroglycerin.			
Nitroglycerin	55-63-0	CHOXD; CHRED; CARBN; BIODG or CMBST	CHOXD; CHRED; or CMBST
P082			
N-Nitrosodimethylamine.			
N-Nitrosodimethylamine	62-75-9	0.40	2.3
P084			
N-Nitrosomethylvinylamine.			
N-Nitrosomethylvinylamine	4549-40-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

P085 Octamethylpyrophosphoramide. Octamethylpyrophosphoramide	152-16-9	CARBN; or CMBST	CMBST
P087 Osmium tetroxide. Osmium tetroxide	20816-12-0	RMETL; or RTHRM	RMETL; or RTHRM
P088 Endothall. Endothall	145-73-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P089 Parathion. Parathion	56-38-2	0.014	4.6
P092 P092 (phenyl mercuric acetate) nonwastewaters, regardless of their total mercury content, that are not incinerator residues or are not residues from RMERC. Mercury	7439-97-6	NA	IMERC; or RMERC
P092 P092 (phenyl mercuric acetate) nonwastewaters that are either incinerator residues or are residues from RMERC; and still contain greater than or equal to 260 mg/kg total mercury. Mercury	7439-97-6	NA	RMERC
P092 P092 (phenyl mercuric acetate) nonwastewaters that are residues from RMERC and contain less than 260 mg/kg total mercury. Mercury	7439-97-6	NA	0.20 mg/ℓ TCLP
P092 P092 (phenyl mercuric acetate) nonwastewaters that are incinerator residues and contain less than 260 mg/kg total mercury. Mercury	7439-97-6	NA	0.025 mg/ℓ TCLP
P092 All P092 (phenyl mercuric acetate) wastewaters. Mercury	7439-97-6	0.15	NA

P093 Phenylthiourea. Phenylthiourea	103-85-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P094 Phorate. Phorate	298-02-2	0.021	4.6
P095 Phosgene. Phosgene	75-44-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P096 Phosphine. Phosphine	7803-51-2	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
P097 Famphur. Famphur	52-85-7	0.017	15
P098 Potassium cyanide. Cyanides (Total) <sup>7</sup> Cyanides (Amenable) <sup>7</sup>	57-12-5 57-12-5	1.2 0.86	590 30
P099 Potassium silver cyanide. Cyanides (Total) <sup>7</sup> Cyanides (Amenable) <sup>7</sup> Silver	57-12-5 57-12-5 7440-22-4	1.2 0.86 0.43	590 30 0.14 mg/ℓ TCLP
P101 Ethyl cyanide (Propanenitrile). Ethyl cyanide (Propanenitrile)	107-12-0	0.24	360
P102 Propargyl alcohol. Propargyl alcohol	107-19-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

P103 Selenourea. Selenium	7782-49-2	0.82	5.7 mg/ℓ TCLP
P104 Silver cyanide. Cyanides (Total) <sup>7</sup> Cyanides (Amenable) <sup>7</sup> Silver	57-12-5 57-12-5 7440-22-4	1.2 0.86 0.43	590 30 0.14 mg/ℓ TCLP
P105 Sodium azide. Sodium azide	26628-22-8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P106 Sodium cyanide. Cyanides (Total) <sup>7</sup> Cyanides (Amenable) <sup>7</sup>	57-12-5 57-12-5	1.2 0.86	590 30
P108 Strychnine and salts. Strychnine and salts	57-24-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P109 Tetraethyldithiopyrophosphate. Tetraethyldithiopyrophosphate	3689-24-5	CARBN; or CMBST	CMBST
P110 Tetraethyl lead. Lead	7439-92-1	0.69	0.75 mg/ℓ TCLP
P111 Tetraethylpyrophosphate. Tetraethylpyrophosphate	107-49-3	CARBN; or CMBST	CMBST
P112 Tetranitromethane. Tetranitromethane	509-14-8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST

P113 Thallic oxide. Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
P114 Thallium selenite. Selenium	7782-49-2	0.82	5.7 mg/l TCLP
P115 Thallium (I) sulfate. Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
P116 Thiosemicarbazide. Thiosemicarbazide	79-19-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P118 Trichloromethanethiol. Trichloromethanethiol	75-70-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P119 Ammonium vanadate. Vanadium (measured in wastewaters only)	7440-62-2	4.3	STABL
P120 Vanadium pentoxide. Vanadium (measured in wastewaters only)	7440-62-2	4.3	STABL
P121 Zinc cyanide. Cyanides (Total) <sup>7</sup> Cyanides (Amenable) <sup>7</sup>	57-12-5 57-12-5	1.2 0.86	590 30
P122 Zinc phosphide Zn <sub>3</sub> P <sub>2</sub> , when present at concentrations greater than 10 percent. Zinc Phosphide	1314-84-7	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST

P123 Toxaphene. Toxaphene	8001-35-2	0.0095	2.6
P127 Carbofuran. <sup>10</sup> Carbofuran	1563-66-2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
P128 Mexacarbate. <sup>10</sup> Mexacarbate	315-18-4	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P185 Tirpate. <sup>10</sup> Tirpate	26419-73-8	0.056; or CMBST, CHOXD, BIODG or CARBN	0.28; or CMBST
P188 Physostigimine salicylate. <sup>10</sup> Physostigmine salicylate	57-64-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P189 Carbosulfan. <sup>10</sup> Carbosulfan	55285-14-8	0.028; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P190 Metolcarb. <sup>10</sup> Metolcarb	1129-41-5	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P191 Dimetilan. <sup>10</sup> Dimetilan	644-64-4	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST



P192 Isolan. <sup>10</sup> Isolan	119-38-0	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P194 Oxamyl. <sup>10</sup> Oxamyl	23135-22-0	0.056; or CMBST, CHOXD, BIODG or CARBN	0.28; or CMBST
P196 Manganese dimethyldithiocarbamates (total). <sup>10</sup> Dithiocarbamates (total)	NA	0.028; or CMBST, CHOXD, BIODG or CARBN	28; or CMBST
P197 Formparanate. <sup>10</sup> Formparanate	17702-57-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P198 Formetanate hydrochloride. <sup>10</sup> Formetanate hydrochloride	23422-53-9	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P199 Methiocarb. <sup>10</sup> Methiocarb	2032-65-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P201 Promecarb. <sup>10</sup> Promecarb	2631-37-0	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P202 m-Cumenyl methylcarbamate. <sup>10</sup> m-Cumenyl methylcarbamate	64-00-6	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST

P203 Aldicarb sulfone. <sup>10</sup> Aldicarb sulfone	1646-88-4	0.056; or CMBST, CHOXD, BIODG or CARBN	0.28; or CMBST
P204 Physostigmine. <sup>10</sup> Physostigmine	57-47-6	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P205 Ziram. <sup>10</sup> Dithiocarbamates (total)	NA	0.028; or CMBST, CHOXD, BIODG or CARBN	28; or CMBST
U001 Acetaldehyde. Acetaldehyde	75-07-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U002 Acetone. Acetone	67-64-1	0.28	160
U003 Acetonitrile. Acetonitrile Acetonitrile; alternate <sup>6</sup> standard for nonwastewaters only	75-05-8 75-05-8	5.6 NA	CMBST 38
U004 Acetophenone. Acetophenone	98-86-2	0.010	9.7
U005 2-Acetylaminofluorene. 2-Acetylaminofluorene	53-96-3	0.059	140

U006 Acetyl chloride. Acetyl chloride	75-36-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U007 Acrylamide. Acrylamide	79-06-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U008 Acrylic acid. Acrylic acid	79-10-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U009 Acrylonitrile. Acrylonitrile	107-13-1	0.24	84
U010 Mitomycin C. Mitomycin C	50-07-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U011 Amitrole. Amitrole	61-82-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U012 Aniline. Aniline	62-53-3	0.81	14

U014 Auramine. Auramine	492-80-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U015 Azaserine. Azaserine	115-02-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U016 Benz(c)acridine. Benz(c)acridine	225-51-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U017 Benzal chloride. Benzal chloride	98-87-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U018 Benz(a)anthracene. Benz(a)anthracene	56-55-3	0.059	3.4
U019 Benzene. Benzene	71-43-2	0.14	10
U020 Benzenesulfonyl chloride. Benzenesulfonyl chloride	98-09-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

U021 Benzidine. Benzidine	92-87-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U022 Benzo(a)pyrene. Benzo(a)pyrene	50-32-8	0.061	3.4
U023 Benzotrichloride. Benzotrichloride	98-07-7	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U024 bis(2-Chloroethoxy)methane. bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2
U025 bis(2-Chloroethyl)ether. bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
U026 Chlornaphazine. Chlornaphazine	494-03-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U027 bis(2-Chloroisopropyl)ether. bis(2-Chloroisopropyl)ether	39638-32-9	0.055	7.2
U028 bis(2-Ethylhexyl)phthalate. bis(2-Ethylhexyl)phthalate	117-81-7	0.28	28
U029 Methyl bromide (Bromomethane). Methyl bromide (Bromo- methane)	74-83-9	0.11	15
U030 4-Bromophenyl phenyl ether. 4-Bromophenyl phenyl ether	101-55-3	0.055	15

U031 n-Butyl alcohol. n-Butyl alcohol	71-36-3	5.6	2.6
U032 Calcium chromate. Chromium (Total)	7440-47-3	2.77	0.60 mg/ℓ TCLP
U033 Carbon oxyfluoride. Carbon oxyfluoride	353-50-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U034 Trichloroacetaldehyde (Chloral). Trichloroacetaldehyde (Chloral)	75-87-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U035 Chlorambucil. Chlorambucil	305-03-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U036 Chlordane. Chlordane ( $\alpha$ and $\chi$ isomers)	57-74-9	0.0033	0.26
U037 Chlorobenzene. Chlorobenzene	108-90-7	0.057	6.0
U038 Chlorobenzilate. Chlorobenzilate	510-15-6	0.10	CMBST
U039 p-Chloro-m-cresol. p-Chloro-m-cresol	59-50-7	0.018	14

U041				
Epichlorohydrin (1-Chloro-2,3-epoxypropane).				
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	106-89-8	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U042				
2-Chloroethyl vinyl ether.				
2-Chloroethyl vinyl ether	110-75-8	0.062		CMBST
U043				
Vinyl chloride.				
Vinyl chloride	75-01-4	0.27		6.0
U044				
Chloroform.				
Chloroform	67-66-3	0.046		6.0
U045				
Chloromethane (Methyl chloride).				
Chloromethane (Methyl chloride)	74-87-3	0.19		30
U046				
Chloromethyl methyl ether.				
Chloromethyl methyl ether	107-30-2	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U047				
2-Chloronaphthalene.				
2-Chloronaphthalene	91-58-7	0.055		5.6
U048				
2-Chlorophenol.				
2-Chlorophenol	95-57-8	0.044		5.7
U049				
4-Chloro-o-toluidine hydrochloride.				
4-Chloro-o-toluidine hydrochloride	3165-93-3	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST

U050			
Chrysene.			
Chrysene	218-01-9	0.059	3.4
U051			
Creosote.			
Naphthalene	91-20-3	0.059	5.6
Pentachlorophenol	87-86-5	0.089	7.4
Phenanthrene	85-01-8	0.059	5.6
Pyrene	129-00-0	0.067	8.2
Toluene	108-88-3	0.080	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Lead	7439-92-1	0.69	0.75 mg/ℓ TCLP
U052			
Cresols (Cresylic acid).			
o-Cresol	95-48-7	0.11	5.6
m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)	1319-77-3	0.88	11.2
U053			
Crotonaldehyde.			
Crotonaldehyde	4170-30-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U055			
Cumene.			
Cumene	98-82-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST



U056 Cyclohexane. Cyclohexane	110-82-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U057 Cyclohexanone. Cyclohexanone	108-94-1	0.36	CMBST
Cyclohexanone; alternate <sup>6</sup> standard for nonwastewaters only	108-94-1	NA	0.75 mg/ℓ TCLP
U058 Cyclophosphamide. Cyclophosphamide	50-18-0	CARBN; or CMBST	CMBST
U059 Daunomycin. Daunomycin	20830-81-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U060 DDD. o,p'-DDD	53-19-0	0.023	0.087
p,p'-DDD	72-54-8	0.023	0.087
U061 DDT. o,p'-DDT	789-02-6	0.0039	0.087
p,p'-DDT	50-29-3	0.0039	0.087
o,p'-DDD	53-19-0	0.023	0.087
p,p'-DDD	72-54-8	0.023	0.087
o,p'-DDE	3424-82-6	0.031	0.087
p,p'-DDE	72-55-9	0.031	0.087
U062 Diallate. Diallate	2303-16-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

U063			
Dibenz(a,h)anthracene.			
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
U064			
Dibenz(a,i)pyrene.			
Dibenz(a,i)pyrene	189-55-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U066			
1,2-Dibromo-3-chloropropane.			
1,2-Dibromo-3-chloropropane	96-12-8	0.11	15
U067			
Ethylene dibromide (1,2-Dibromoethane).			
Ethylene dibromide (1,2- Dibromoethane)	106-93-4	0.028	15
U068			
Dibromomethane.			
Dibromomethane	74-95-3	0.11	15
U069			
Di-n-butyl phthalate.			
Di-n-butyl phthalate	84-74-2	0.057	28
U070			
o-Dichlorobenzene.			
o-Dichlorobenzene	95-50-1	0.088	6.0
U071			
m-Dichlorobenzene.			
m-Dichlorobenzene	541-73-1	0.036	6.0
U072			
p-Dichlorobenzene.			
p-Dichlorobenzene	106-46-7	0.090	6.0
U073			
3,3'-Dichlorobenzidine.			
3,3'-Dichlorobenzidine	91-94-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

U074			
1,4-Dichloro-2-butene. cis-1,4-Dichloro-2-butene	1476-11-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
trans-1,4-Dichloro-2-butene	764-41-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U075			
Dichlorodifluoromethane. Dichlorodifluoromethane	75-71-8	0.23	7.2
U076			
1,1-Dichloroethane. 1,1-Dichloroethane	75-34-3	0.059	6.0
U077			
1,2-Dichloroethane. 1,2-Dichloroethane	107-06-2	0.21	6.0
U078			
1,1-Dichloroethylene. 1,1-Dichloroethylene	75-35-4	0.025	6.0
U079			
1,2-Dichloroethylene. trans-1,2-Dichloroethylene	156-60-5	0.054	30
U080			
Methylene chloride. Methylene chloride	75-09-2	0.089	30
U081			
2,4-Dichlorophenol. 2,4-Dichlorophenol	120-83-2	0.044	14
U082			
2,6-Dichlorophenol. 2,6-Dichlorophenol	87-65-0	0.044	14
U083			
1,2-Dichloropropane. 1,2-Dichloropropane	78-87-5	0.85	18

U084			
1,3-Dichloropropylene.			
cis-1,3-Dichloropropylene	10061-01-5	0.036	18
trans-1,3-Dichloropropylene	10061-02-6	0.036	18
U085			
1,2:3,4-Diepoxybutane.			
<del>1,2:3,4-Diepoxybutane</del>	1464-53-5	(WETOX or CHOXD) fb	CMBST
<u>1,2,3,4-Diepoxybutane</u>		CARBN; or CMBST	
U086			
N,N'-Diethylhydrazine.			
N,N'-Diethylhydrazine	1615-80-1	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U087			
O,O-Diethyl-S-methyldithiophosphate.			
O,O-Diethyl-S-methyldithio- phosphate	3288-58-2	CARBN; or CMBST	CMBST
U088			
Diethyl phthalate.			
Diethyl phthalate	84-66-2	0.20	28
U089			
Diethyl stilbestrol.			
Diethyl stilbestrol	56-53-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U090			
Dihydrosafrole.			
Dihydrosafrole	94-58-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U091			
3,3'-Dimethoxybenzidine.			
3,3'-Dimethoxybenzidine	119-90-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

U092				
Dimethylamine.				
Dimethylamine	124-40-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U093				
p-Dimethylaminoazobenzene.				
p-Dimethylaminoazobenzene	60-11-7	0.13	CMBST	
U094				
7,12-Dimethylbenz(a)anthracene.				
7,12-Dimethylbenz(a)anthracene	57-97-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U095				
3,3'-Dimethylbenzidine.				
3,3'-Dimethylbenzidine	119-93-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U096				
$\alpha$ , $\alpha$ -Dimethyl benzyl hydroperoxide.				
$\alpha$ , $\alpha$ -Dimethyl benzyl hydro- peroxide	80-15-9	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST	
U097				
Dimethylcarbamoyl chloride.				
Dimethylcarbamoyl chloride	79-44-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST	
U098				
1,1-Dimethylhydrazine.				
1,1-Dimethylhydrazine	57-14-7	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST	

U099 1,2-Dimethylhydrazine. 1,2-Dimethylhydrazine	540-73-8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U101 2,4-Dimethylphenol. 2,4-Dimethylphenol	105-67-9	0.036	14
U102 Dimethyl phthalate. Dimethyl phthalate	131-11-3	0.047	28
U103 Dimethyl sulfate. Dimethyl sulfate	77-78-1	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U105 2,4-Dinitrotoluene. 2,4-Dinitrotoluene	121-14-2	0.32	140
U106 2,6-Dinitrotoluene. 2,6-Dinitrotoluene	606-20-2	0.55	28
U107 Di-n-octyl phthalate. Di-n-octyl phthalate	117-84-0	0.017	28
U108 1,4-Dioxane. 1,4-Dioxane	123-91-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
1,4-Dioxane; alternate <sup>6</sup> standard for nonwastewaters only	123-91-1	12.0	170
U109 1,2-Diphenylhydrazine. 1,2-Diphenylhydrazine	122-66-7	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST

1,2-Diphenylhydrazine; alternate <sup>6</sup> standard for wastewaters only	122-66-7	0.087	NA
U110 Dipropylamine. Dipropylamine	142-84-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U111 Di-n-propylnitrosamine. Di-n-propylnitrosamine	621-64-7	0.40	14
U112 Ethyl acetate. Ethyl acetate	141-78-6	0.34	33
U113 Ethyl acrylate. Ethyl acrylate	140-88-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U114 Ethylenebisdithiocarbamic acid salts and esters. Ethylenebisdithiocarbamic acid	111-54-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U115 Ethylene oxide. Ethylene oxide	75-21-8	(WETOX or CHOXD) fb CARBN; or CMBST	CHOXD; or CMBST
Ethylene oxide; alternate <sup>6</sup> standard for wastewaters only	75-21-8	0.12	NA

U116 Ethylene thiourea. Ethylene thiourea	96-45-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U117 Ethyl ether. Ethyl ether	60-29-7	0.12	160
U118 Ethyl methacrylate. Ethyl methacrylate	97-63-2	0.14	160
U119 Ethyl methane sulfonate. Ethyl methane sulfonate	62-50-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U120 Fluoranthene. Fluoranthene	206-44-0	0.068	3.4
U121 Trichloromonofluoromethane. Trichloromonofluoromethane	75-69-4	0.020	30
U122 Formaldehyde. Formaldehyde	50-00-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U123 Formic acid. Formic acid	64-18-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST



U124 Furan. Furan	110-00-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U125 Furfural. Furfural	98-01-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U126 Glycidylaldehyde. Glycidylaldehyde	765-34-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U127 Hexachlorobenzene. Hexachlorobenzene	118-74-1	0.055	10
U128 Hexachlorobutadiene. Hexachlorobutadiene	87-68-3	0.055	5.6
U129 Lindane. $\alpha$ -BHC $\beta$ -BHC $\delta$ -BHC $\gamma$ -BHC (Lindane)	319-84-6 319-85-7 319-86-8 58-89-9	0.00014 0.00014 0.023 0.0017	0.066 0.066 0.066 0.066
U130 Hexachlorocyclopentadiene. Hexachlorocyclopentadiene	77-47-4	0.057	2.4
U131 Hexachloroethane. Hexachloroethane	67-72-1	0.055	30

U132 Hexachlorophene. Hexachlorophene	70-30-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U133 Hydrazine. Hydrazine	302-01-2	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U134 Hydrogen fluoride. Fluoride (measured in wastewaters only)	7664-39-3	35	ADGAS fb NEUTR; or NEUTR
U135 Hydrogen sulfide. Hydrogen sulfide	7783-06-4	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
U136 Cacodylic acid. Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
U137 Indeno(1,2,3-cd)pyrene. Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
U138 Iodomethane. Iodomethane	74-88-4	0.19	65
U140 Isobutyl alcohol. Isobutyl alcohol	78-83-1	5.6	170
U141 Isosafrole. Isosafrole	120-58-1	0.081	2.6
U142 Kepone. Kepone	143-50-8	0.0011	0.13

U143 Lasiocarpine. Lasiocarpine	303-34-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U144 Lead acetate. Lead	7439-92-1	0.69	0.75 mg/ℓ TCLP
U145 Lead phosphate. Lead	7439-92-1	0.69	0.75 mg/ℓ TCLP
U146 Lead subacetate. Lead	7439-92-1	0.69	0.75 mg/ℓ TCLP
U147 Maleic anhydride. Maleic anhydride	108-31-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U148 Maleic hydrazide. Maleic hydrazide	123-33-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U149 Malononitrile. Malononitrile	109-77-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U150 Melphalan. Melphalan	148-82-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

U151 U151 (mercury) nonwastewaters that contain greater than or equal to 260 mg/kg total mercury. Mercury	7439-97-6	NA	RMERC
U151 U151 (mercury) nonwastewaters that contain less than 260 mg/kg total mercury and that are residues from RMERC only. Mercury	7439-97-6	NA	0.20 mg/ℓ TCLP
U151 U151 (mercury) nonwastewaters that contain less than 260 mg/kg total mercury and that are not residues from RMERC only. Mercury	7439-97-6	NA	0.025 mg/ℓ TCLP
U151 All U151 (mercury) wastewater. Mercury	7439-97-6	0.15	NA
U151 Elemental Mercury Contaminated with Radioactive Materials. Mercury	7439-97-6	NA	AMLGM
U152 Methacrylonitrile. Methacrylonitrile	126-98-7	0.24	84
U153 Methanethiol. Methanethiol	74-93-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U154 Methanol. Methanol	67-56-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
Methanol; alternate <sup>6</sup> set of standards for both wastewaters and nonwastewaters	67-56-1	5.6	0.75 mg/ℓ TCLP
U155 Methapyrilene. Methapyrilene	91-80-5	0.081	1.5

U156				
Methyl chlorocarbonate.				
Methyl chlorocarbonate	79-22-1	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U157				
3-Methylcholanthrene.				
3-Methylcholanthrene	56-49-5	0.0055		15
U158				
4,4'-Methylene bis(2-chloroaniline).				
4,4'-Methylene bis(2-chloro- aniline)	101-14-4	0.50		30
U159				
Methyl ethyl ketone.				
Methyl ethyl ketone	78-93-3	0.28		36
U160				
Methyl ethyl ketone peroxide.				
Methyl ethyl ketone peroxide	1338-23-4	CHOXD; CHRED; CARBN; BIODG; or CMBST		CHOXD; CHRED; or CMBST
U161				
Methyl isobutyl ketone.				
Methyl isobutyl ketone	108-10-1	0.14		33
U162				
Methyl methacrylate.				
Methyl methacrylate	80-62-6	0.14		160
U163				
N-Methyl-N'-nitro-N-nitrosoguanidine.				
N-Methyl-N'-nitro-N-nitroso- guanidine	70-25-7	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST
U164				
Methylthiouracil.				
Methylthiouracil	56-04-2	(WETOX or CHOXD) fb CARBN; or CMBST		CMBST

U165 Naphthalene. Naphthalene	91-20-3	0.059	5.6
U166 1,4-Naphthoquinone. 1,4-Naphthoquinone	130-15-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U167 1-Naphthylamine. 1-Naphthylamine	134-32-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U168 2-Naphthylamine. 2-Naphthylamine	91-59-8	0.52	CMBST
U169 Nitrobenzene. Nitrobenzene	98-95-3	0.068	14
U170 p-Nitrophenol. p-Nitrophenol	100-02-7	0.12	29
U171 2-Nitropropane. 2-Nitropropane	79-46-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U172 N-Nitrosodi-n-butylamine. N-Nitrosodi-n-butylamine	924-16-3	0.40	17
U173 N-Nitrosodiethanolamine. N-Nitrosodiethanolamine	1116-54-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

U174 N-Nitrosodiethylamine. N-Nitrosodiethylamine	55-18-5	0.40	28
U176 N-Nitroso-N-ethylurea. N-Nitroso-N-ethylurea	759-73-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U177 N-Nitroso-N-methylurea. N-Nitroso-N-methylurea	684-93-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U178 N-Nitroso-N-methylurethane. N-Nitroso-N-methylurethane	615-53-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U179 N-Nitrosopiperidine. N-Nitrosopiperidine	100-75-4	0.013	35
U180 N-Nitrosopyrrolidine. N-Nitrosopyrrolidine	930-55-2	0.013	35
U181 5-Nitro-o-toluidine. 5-Nitro-o-toluidine	99-55-8	0.32	28
U182 Paraldehyde. Paraldehyde	123-63-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U183 Pentachlorobenzene. Pentachlorobenzene	608-93-5	0.055	10

U184 Pentachloroethane. Pentachloroethane	76-01-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
Pentachloroethane; alternate <sup>6</sup> standards for both wastewaters and nonwastewaters	76-01-7	0.055	6.0
U185 Pentachloronitrobenzene. Pentachloronitrobenzene	82-68-8	0.055	4.8
U186 1,3-Pentadiene. 1,3-Pentadiene	504-60-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U187 Phenacetin. Phenacetin	62-44-2	0.081	16
U188 Phenol. Phenol	108-95-2	0.039	6.2
U189 Phosphorus sulfide. Phosphorus sulfide	1314-80-3	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
U190 Phthalic anhydride. Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28
Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28



U191 2-Picoline. 2-Picoline	109-06-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U192 Pronamide. Pronamide	23950-58-5	0.093	1.5
U193 1,3-Propane sultone. 1,3-Propane sultone	1120-71-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U194 n-Propylamine. n-Propylamine	107-10-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U196 Pyridine. Pyridine	110-86-1	0.014	16
U197 p-Benzoquinone. p-Benzoquinone	106-51-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U200 Reserpine. Reserpine	50-55-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

U201 Resorcinol. Resorcinol	108-46-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U203 Safrole. Safrole	94-59-7	0.081	22
U204 Selenium dioxide. Selenium	7782-49-2	0.82	5.7 mg/ℓ TCLP
U205 Selenium sulfide. Selenium	7782-49-2	0.82	5.7 mg/ℓ TCLP
U206 Streptozotocin. Streptozotocin	18883-66-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U207 1,2,4,5-Tetrachlorobenzene. 1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
U208 1,1,1,2-Tetrachloroethane. 1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
U209 1,1,2,2-Tetrachloroethane. 1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0
U210 Tetrachloroethylene. Tetrachloroethylene	127-18-4	0.056	6.0
U211 Carbon tetrachloride. Carbon tetrachloride	56-23-5	0.057	6.0

U213 Tetrahydrofuran. Tetrahydrofuran	109-99-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U214 Thallium (I) acetate. Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U215 Thallium (I) carbonate. Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U216 Thallium (I) chloride. Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U217 Thallium (I) nitrate. Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U218 Thioacetamide. Thioacetamide	62-55-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U219 Thiourea. Thiourea	62-56-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U220 Toluene. Toluene	108-88-3	0.080	10

U221 Toluenediamine. Toluenediamine	25376-45-8	CARBN; or CMBST	CMBST
U222 o-Toluidine hydrochloride. o-Toluidine hydrochloride	636-21-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U223 Toluene diisocyanate. Toluene diisocyanate	26471-62-5	CARBN; or CMBST	CMBST
U225 Bromoform (Tribromomethane). Bromoform (Tribromomethane)	75-25-2	0.63	15
U226 1,1,1-Trichloroethane. 1,1,1-Trichloroethane	71-55-6	0.054	6.0
U227 1,1,2-Trichloroethane. 1,1,2-Trichloroethane	79-00-5	0.054	6.0
U228 Trichloroethylene. Trichloroethylene	79-01-6	0.054	6.0
U234 1,3,5-Trinitrobenzene. 1,3,5-Trinitrobenzene	99-35-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U235 tris-(2,3-Dibromopropyl)-phosphate. tris-(2,3-Dibromopropyl)- phosphate	126-72-7	0.11	0.10

U236 Trypan Blue. Trypan Blue	72-57-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U237 Uracil mustard. Uracil mustard	66-75-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U238 Urethane (Ethyl carbamate). Urethane (Ethyl carbamate)	51-79-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U239 Xylenes. Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
U240 2,4-D (2,4-Dichlorophenoxyacetic acid). 2,4-D (2,4-Dichloro- phenoxyacetic acid)	94-75-7	0.72	10
2,4-D (2,4-Dichloro- phenoxyacetic acid) salts and esters	NA	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U243 Hexachloropropylene. Hexachloropropylene	1888-71-7	0.035	30
U244 Thiram. Thiram	137-26-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

U246 Cyanogen bromide. Cyanogen bromide	506-68-3	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
U247 Methoxychlor. Methoxychlor	72-43-5	0.25	0.18
U248 Warfarin, & salts, when present at concentrations of 0.3 percent or less. Warfarin	81-81-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U249 Zinc phosphide, $Zn_3P_2$ , when present at concentrations of 10 percent or less. Zinc Phosphide	1314-84-7	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
U271 Benomyl. <sup>10</sup> Benomyl	17804-35-2	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U278 Bendiocarb. <sup>10</sup> Bendiocarb	22781-23-3	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U279 Carbaryl. <sup>10</sup> Carbaryl	63-25-2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
U280 Barban. <sup>10</sup> Barban	101-27-9	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST

U328 o-Toluidine. o-Toluidine	95-53-4	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST
U353 p-Toluidine. p-Toluidine	106-49-0	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST
U359 2-Ethoxyethanol. 2-Ethoxyethanol	110-80-5	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST
U364 Bendiocarb phenol. <sup>10</sup> Bendiocarb phenol	22961-82-6	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U367 Carbofuran phenol. <sup>10</sup> Carbofuran phenol	1563-38-8	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U372 Carbendazim. <sup>10</sup> Carbendazim	10605-21-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST

U373 Propham. <sup>10</sup> Propham	122-42-9	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U387 Prosulfocarb. <sup>10</sup> Prosulfocarb	52888-80-9	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U389 Triallate. <sup>10</sup> Triallate	2303-17-5	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U394 A2213. <sup>10</sup> A2213	30558-43-1	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U395 Diethylene glycol, dicarbamate. <sup>10</sup> Diethylene glycol, dicarbamate	5952-26-1	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U404 Triethylamine. <sup>10</sup> Triethylamine	<del>401-44-8</del> <u>121-44-8</u>	0.081; or CMBST, CHOXD, BIODG or CARBN	1.5; or CMBST
U409 Thiophanate-methyl. <sup>10</sup> Thiophanate-methyl	23564-05-8	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U410 Thiodicarb. <sup>10</sup> Thiodicarb	59669-26-0	0.019; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST



U411			
Propoxur. <sup>10</sup>			
Propoxur	114-26-1	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST

## Notes:

- 1 The waste descriptions provided in this table do not replace waste descriptions in 35 Ill. Adm. Code 721. Descriptions of Treatment or Regulatory Subcategories are provided, as needed, to distinguish between applicability of different standards.
- 2 CAS No. 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 No. number is given for the parent compound only.
- 3 Concentration standards for wastewaters are expressed in mg/ℓ and are based on analysis of composite samples.
- 4 All treatment standards expressed as a Technology Code or combination of Technology Codes are explained in detail in Table C of this Part, "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. A semicolon (;) separates alternative treatment schemes.
- 5 Except for Metals (EP or TCLP) and Cyanides (Total and Amenable), the nonwastewater treatment standards expressed as a concentration were established, in part, based on incineration in units operated in accordance with the technical requirements of Subpart O of 35 Ill. Adm. Code 724 or Subpart O of 35 Ill. Adm. Code 725 or based on combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in Section 728.140(d). All concentration standards for nonwastewaters are based on analysis of grab samples.
- 6 Where an alternate treatment standard or set of alternate standards has been indicated, a facility may comply with this alternate standard, but only for the Treatment or Regulatory Subcategory or physical form (i.e., wastewater or nonwastewater) specified for that alternate standard.
- 7 Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010C or 9012B, in "Test Methods for Evaluating Solid Waste, Physical or Chemical Methods," USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a), with a sample size of 10 grams and a distillation time of one hour and 15 minutes.
- 8 These wastes, when rendered non-hazardous and then subsequently managed in CWA or CWA-equivalent systems, are not subject to treatment standards. (See Section 728.101(c)(3) and (c)(4).)

- 9 These wastes, when rendered non-hazardous and then subsequently injected in a Class I SDWA well, are not subject to treatment standards. (See 35 Ill. Adm. Code 738.101(d).)
- 10 The treatment standard for this waste may be satisfied by either meeting the constituent concentrations in the table in this Section or by treating the waste by the specified technologies: combustion, as defined by the technology code CMBST at Table C for nonwastewaters; and biodegradation, as defined by the technology code BIODG; carbon adsorption, as defined by the technology code CARBN; chemical oxidation, as defined by the technology code CHOXD; or combustion, as defined as technology code CMBST, at Table C, for wastewaters.
- 11 For these wastes, the definition of CMBST is limited to any of the following that have obtained a determination of equivalent treatment under Section 728.142(b): (1) combustion units operating under 35 Ill. Adm. Code 726, (2) combustion units permitted under Subpart O of 35 Ill. Adm. Code 724, or (3) combustion units operating under Subpart O of 35 Ill. Adm. Code 725.
- 12 Disposal of USEPA hazardous waste number K175 waste that has complied with all applicable Section 728.140 treatment standards must also be macroencapsulated in accordance with Table F of this Part, unless the waste is placed in either of the following types of facilities:
- a) A RCRA Subtitle C monofill containing only K175 wastes that meet all applicable 40 CFR 268.40 treatment standards; or
  - b) A dedicated RCRA Subtitle C landfill cell in which all other wastes being co-disposed are at  $\text{pH} \leq 6.0$ .

BOARD NOTE: Derived from table to 40 CFR 268.40-~~(2014)~~ (2015).

NA means not applicable.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

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

PART 733  
 STANDARDS FOR UNIVERSAL WASTE MANAGEMENT

SUBPART A: GENERAL

Section	Scope
733.101	Scope
733.102	Applicability: Batteries
733.103	Applicability: Pesticides
733.104	Applicability: Mercury-Containing Equipment

- 733.105 Applicability: Lamps
- 733.106 Applicability: Mercury-Containing Equipment (Repealed)
- 733.107 Applicability: Mercury-Containing Lamps (Repealed)
- 733.108 Applicability: Household and Conditionally Exempt Small Quantity Generator Waste
- 733.109 Definitions

#### SUBPART B: STANDARDS FOR SMALL QUANTITY HANDLERS

##### Section

- 733.110 Applicability
- 733.111 Prohibitions
- 733.112 Notification
- 733.113 Waste Management
- 733.114 Labeling and Marking
- 733.115 Accumulation Time Limits
- 733.116 Employee Training
- 733.117 Response to Releases
- 733.118 Off-Site Shipments
- 733.119 Tracking Universal Waste Shipments
- 733.120 Exports

#### SUBPART C: STANDARDS FOR LARGE QUANTITY HANDLERS

##### Section

- 733.130 Applicability
- 733.131 Prohibitions
- 733.132 Notification
- 733.133 Waste Management
- 733.134 Labeling and Marking
- 733.135 Accumulation Time Limits
- 733.136 Employee Training
- 733.137 Response to Releases
- 733.138 Off-Site Shipments
- 733.139 Tracking Universal Waste Shipments
- 733.140 Exports

#### SUBPART D: STANDARDS FOR UNIVERSAL WASTE TRANSPORTERS

##### Section

- 733.150 Applicability
- 733.151 Prohibitions
- 733.152 Waste Management
- 733.153 Accumulation Time Limits
- 733.154 Response to Releases
- 733.155 Off-site Shipments
- 733.156 Exports

## SUBPART E: STANDARDS FOR DESTINATION FACILITIES

Section	
733.160	Applicability
733.161	Off-Site Shipments
733.162	Tracking Universal Waste Shipments

## SUBPART F: IMPORT REQUIREMENTS

Section	
733.170	Imports

## SUBPART G: PETITIONS TO INCLUDE OTHER WASTES

Section	
733.180	General
733.181	Factors for Petitions to Include Other Wastes

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

SOURCE: Adopted in R95-20 at 20 Ill. Reg. 11291, effective August 1, 1996; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 944, effective December 16, 1997; amended in R98-12 at 22 Ill. Reg. 7650, effective April 15, 1998; amended in R99-15 at 23 Ill. Reg. 9502, effective July 26, 1999; amended in R00-13 at 24 Ill. Reg. 9874, effective June 20, 2000; amended in R05-8 at 29

Ill. Reg. 6058, effective April 13, 2005; amended in R06-16/R06-17/R06-18 at 31 Ill. Reg. 1352, effective December 20, 2006; amended in R16-7 at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

## SUBPART A: GENERAL

**Section 733.104 Applicability: ~~Mercury Thermostats~~ Mercury-Containing Equipment**

- a) Mercury-containing equipment covered under this Part. The requirements of this Part apply to persons managing mercury-containing equipment, as described in Section 733.109, except those listed in subsection (b) ~~of this Section~~.
- b) Mercury-containing equipment not covered under this Part. The requirements of this Part do not apply to persons managing the following mercury-containing equipment:
  - 1) Mercury-containing equipment that is not yet waste pursuant to 35 Ill. Adm. Code 721. Subsection (c) ~~of this Section~~ describes when mercury-containing equipment becomes waste;
  - 2) Mercury-containing equipment that is not hazardous waste. Mercury-containing equipment is a hazardous waste if it is a waste (see subsection (b)(1) ~~of this Section~~) and it exhibits one or more of the characteristics identified in Subpart C of 35 Ill. Adm. Code 721 or is listed in Subpart D of 35 Ill. Adm. Code 721; and

- 3) Equipment and devices from which the mercury-containing components have been removed.
- c) Generation of waste mercury-containing equipment.
- 1) A used mercury-containing equipment becomes a waste on the date it is discarded.
  - 2) Unused mercury-containing equipment becomes a waste on the date the handler decides to discard it.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### SUBPART C: STANDARDS FOR LARGE QUANTITY HANDLERS

##### **Section 733.132 Notification**

- a) Written notification of universal waste management.
  - 1) Except as provided in subsections (a)(2) and (a)(3) ~~of this Section~~, a large quantity handler of universal waste must have sent written notification of universal waste management to the Agency, and received a USEPA Identification Number, before meeting or exceeding the 5,000 kilogram storage limit.
  - 2) A large quantity handler of universal waste that has already notified USEPA ~~or~~ and the Agency of its hazardous waste management activities and which has received a USEPA Identification Number is not required to renotify pursuant to this Section.
  - 3) A large quantity handler of universal waste that manages recalled universal waste pesticides, as described in Section 733.103(a)(1), and that has sent notification to USEPA ~~or~~ and the Agency, as required by federal 40 CFR 165, is not required to notify for those recalled universal waste pesticides pursuant to this Section.
- b) This notification must include the following:
  - 1) The universal waste handler's name and mailing address;
  - 2) The name and business telephone number of the person at the universal waste handler's site who should be contacted regarding universal waste management activities;
  - 3) The address or physical location of the universal waste management activities;

- 4) A list of all of the types of universal waste managed by the handler (e.g., batteries, pesticides, mercury-containing equipment, or lamps); and
- 5) A statement indicating that the handler is accumulating more than 5,000 kilograms of universal waste at one time.

BOARD NOTE: At 60 Fed. Reg. 25520-21 (May 11, 1995), USEPA explained that the generator or consolidation point may use USEPA Form 8700-12 for notification. (~~To obtain~~Obtain USEPA Form 8700-12 ~~call from~~the Agency at 217-782-6761.) The generator or consolidation point must send a copy of the notification to the Agency and USEPA Region 5, whether USEPA Form 8700-12 is used some other means for the required notification. USEPA further explained that it is not necessary for the handler to aggregate the amounts of waste at multiple non-contiguous sites for the purposes of the 5,000 kilogram determination.

(Source: Amended at 40 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

I, John T. Therriault, Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion on March 3, 2016, by a vote of 5-0.



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John T. Therriault, Clerk  
Illinois Pollution Control Board