ILLINOIS POLLUTION CONTROL BOARD
November 6, 1997

IN THE MATTER OF:	)	
	)	R96-10
RCRA UPDATE, USEPA	)	(Identical in Substance Rules)
REGULATIONS (July 1, 1995, through	)	
December 31, 1995)	)	

IN THE MATTER OF:	)	
	)	R97-3
UIC UPDATE, USEPA REGULATIONS	)	(Identical-in-Substance Rules)
(January 1, 1996, through June 30, 1996)	)	

IN THE MATTER OF:	)	
	)	R97-5
RCRA UPDATE, USEPA	)	(Identical in Substance Rules)
REGULATIONS (January 1, 1996,	)	
through June 30, 1996)	)	

Adopted Rule. Final Order.

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

Pursuant to Section 13(c) and 22.4(a) of the Environmental Protection Act (Act), 415 ILCS 5/13(c) & 22.4(a) (1996), the Board proposes amendments to the Resource Conservation and Recovery Act of 1976 (RCRA Subtitle C) hazardous waste regulations.

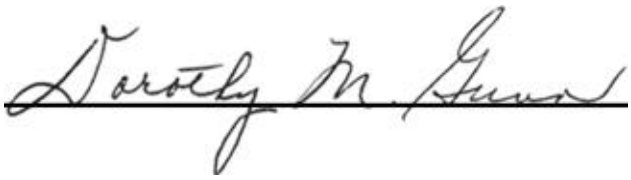
Section 22.4(a) provides for quick adoption of regulations that are "identical in substance" to federal regulations adopted by the U.S. Environmental Protection Agency (USEPA) to implement Sections 3001 through 3005 of the Resource Conservation and Recovery Act of 1976 (RCRA Subtitle C), 42 U.S.C. §§ 6921-6925 (1996), and that Title VII of the Act and Section 5 of the Administrative Procedure Act (APA), 5 ILCS 100/5-35 & 5-40 (1996), shall not apply. Because this rulemaking is not subject to Section 5 of the APA, it is not subject to first notice or to second notice review by the Joint Committee on Administrative Rules (JCAR). The federal RCRA Subtitle C regulations are found at 40 CFR 260 through 268, 270 through 271, 273, and 279.

This order is supported by an opinion adopted on the same day. The Board will submit Notices of Adopted Amendments for publication in the Illinois Register 30 days after the date of this order, in order to allow USEPA an opportunity to review them

before they are filed and become effective. The complete text of the proposed rules follows.

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, certify that the above order was adopted on the 6th day of November 1997, by a vote of 7-0.



Dorothy M. Gunn, Clerk
Illinois Pollution Control Board

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

PART 702
RCRA AND UIC PERMIT PROGRAMS

SUBPART A: GENERAL PROVISIONS

SUBPART B: PERMIT APPLICATIONS

SUBPART C: PERMIT CONDITIONS

SUBPART D: ISSUED PERMITS

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

SOURCE: Adopted in R81-32, 47 PCB 93, at 6 Ill. Reg. 12479, effective May 17, 1982; amended in R82-19, at 53 PCB 131, 7 Ill. Reg. 14352, effective May 17, 1982; amended in R84-9 at 9 Ill. Reg. 11926, effective July 24, 1985; amended in R85-23 at 10 Ill. Reg. 13274, effective July 29, 1986; amended in R86-1 at 10 Ill. Reg. 14083, effective August 12, 1986; amended in R86-28 at 11 Ill. Reg. 6131, effective March 24, 1987; amended in R87-5 at 11 Ill. Reg. 19376, effective November 12, 1987; amended in R87-26 at 12 Ill. Reg. 2579, effective January 15, 1988; amended in R87-29 at 12 Ill. Reg. 6673, effective March 28, 1988; amended in R87-39 at 12 Ill. Reg. 13083, effective July 29, 1988; amended in R89-1 at 13 Ill. Reg. 18452, effective November 13, 1989; amended in R89-2 at 14 Ill. Reg. 3089, effective February 20, 1990; amended in R89-9 at 14 Ill. Reg. 6273, effective April 16, 1990; amended in R92-10 at 17 Ill. Reg. 5769, effective March 26, 1993; amended in R93-16 at 18 Ill. Reg. 6918, effective April 26, 1994; amended in R94-5 at 18 Ill. Reg. 18284, effective December 20, 1994; amended in R95-6 at 19 Ill. Reg. 9913, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 11210, effective August 1, 1996; amended in R96-10/R97-3/R97-5 at 21 Ill. Reg. _____, effective _____.

SUBPART A: GENERAL PROVISIONS

Section 702.110 Definitions

The following definitions apply to 35 Ill. Adm. Code 702, 703, 704, and 705. Terms not defined in this Section have the meaning given by the appropriate Act. When a defined term appears in a definition, the defined term is sometimes placed within

quotation marks as to an aid to readers. When a definition applies primarily to one or more programs, those programs appear in parentheses after the defined terms.

"Act" or "Environmental Protection Act" means the Environmental Protection Act [415 ILCS 5].

"Administrator" means the Administrator of the United States Environmental Protection Agency, or an authorized representative.

"Agency" means the Illinois Environmental Protection Agency.

"Application" means the Agency forms for applying for a permit. For RCRA, application also includes the information required by the Agency under 35 Ill. Adm. Code 703.182 through 703.212 (contents of Part B of the RCRA application).

"Appropriate act and regulations" means the Resource Conservation and Recovery Act (RCRA); Safe Drinking Water Act (SDWA); or the "Environmental Protection Act", whichever is applicable; and applicable regulations promulgated under those statutes.

"Approved program or approved State" means a State or interstate program that has been approved or authorized by USEPA under 40 CFR 271 (19~~92~~96) (RCRA) or Section 1422 of the SDWA (UIC).

"Aquifer" (RCRA and UIC) means a geological "formation", group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

"Area of review" (UIC) means the area surrounding an injection well described according to the criteria set forth in 35 Ill. Adm. Code 730.106, or in the case of an area permit, the project area plus a circumscribing area the width of that is either 402 meters (1/4 of a mile) or a number calculated according to the criteria set forth in 35 Ill. Adm. Code 730.106.

"Board" means the Illinois Pollution Control Board.

"Closure" (RCRA) means the act of securing a "Hazardous Waste Management Facility" pursuant to the requirements of 35 Ill. Adm. Code 724.

"Component" (RCRA) means any constituent part of a unit or any group of constituent parts of a unit that are assembled to perform a specific function (e.g., a pump seal, pump, kiln liner, or kiln thermocouple).

"Contaminant" (UIC) means any physical, chemical, biological, or radiological substance or matter in water.

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

"CWA" means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972), P.L. 92-500, as amended by P.L. 95-217 and P.L. 95-576; 33 U.S.C. 1251 et seq. (19~~92~~96).

"Date of approval by USEPA of the Illinois UIC program" means March 3, 1984.

"Director" means the Director of the Illinois Environmental Protection Agency or the Director's designee.

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

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

"Draft ~~P~~permit" means a document prepared under 35 Ill. Adm. Code 705.141 indicating the Agency's tentative decision to issue, deny, modify, terminate, or reissue a "permit". A notice of intent to deny a permit, as discussed in 35 Ill. Adm. Code 705.141, is a type of "draft permit". A denial of a request for modification, as discussed in 35 Ill. Adm. Code 705.128, is not a "draft permit". A "proposed permit" is not a "draft permit".

"Drilling ~~M~~mud" (UIC) means a heavy suspension used in drilling an "injection well", introduced down the drill pipe and through the drill bit.

"Elementary neutralization unit" means a device which:

> Is used for neutralizing wastes that are hazardous wastes only because they exhibit the corrosivity characteristics defined in 35 Ill. Adm. Code 721.122, or are listed in 35 Ill. Adm. Code 721.Subpart D only for this reason; and
>
> Meets the definition of tank, tank system, container, transport vehicle or vessel in 35 Ill. Adm. Code 720.110.

"Emergency ~~P~~permit" means a RCRA or UIC "permit" issued in accordance with 35 Ill. Adm. Code 703.221 or 704.163, respectively.

"Environmental Protection Agency" ("EPA" or "USEPA") means the United States Environmental Protection Agency.

"Exempted aquifer" (UIC) means an "aquifer" or its portion that meets the criteria in the definition of "underground source of drinking water" but which has been exempted according to the procedures in 35 Ill. Adm. Code 702.105, 704.104, and 704.123(b).

"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 has commenced construction if:

> The owner or operator has obtained the Federal, State, and local approvals or permits necessary to begin physical construction; and
>
> Either:
>
> > A continuous on-site, physical construction program has begun; or
> >
> > The owner or operator has entered into contractual obligations--that cannot be ~~cancelled~~ canceled or modified without substantial loss--for physical construction of the facility to be completed within a reasonable time.

"Existing injection well" (UIC) means an "injection well" other than a "new injection well".

"Facility mailing list" means the mailing list for a facility maintained by the Agency in accordance with 35 Ill. Adm. Code 705.163(a).

"Facility or activity" means any "HWM facility", UIC "injection well", or any other facility or activity (including land or appurtenances thereto) that is subject to regulations under the Illinois RCRA or UIC program.

"Facility mailing list" (RCRA) means the mailing list for a facility maintained by the Agency in accordance with 35 Ill. Adm. Code 705.163.

"Federal, ~~S~~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. (See 35 Ill. Adm. Code 700.102.)

"Final authorization" (RCRA) means approval by USEPA of the Illinois Hazardous Waste Management Program that has met the requirements of Section 3006(b) of RCRA and the applicable requirements of 40 CFR 271, Subpart A (19~~92~~96). USEPA granted initial final authorization on January 31, 1986.

"Fluid" (UIC) means any material or substance that flows or moves whether in a semisolid, liquid, sludge, gas, or any other form or state.

"Formation" (UIC) means a body of rock characterized by a degree of lithologic homogeneity that is prevailingly, but not necessarily, tabular and is mappable on the earth's surface or traceable in the subsurface.

"Formation fluid" (UIC) means "fluid" present in a "formation" under natural conditions, as opposed to introduced fluids, such as "drilling mud".

"Functionally equivalent component" (RCRA) means a component that performs the same function or measurement and which meets or exceeds the performance specifications of another component.

"Generator" (RCRA) means any person, by site location, whose act or process produces "hazardous waste" identified or listed in 35 Ill. Adm. Code 721.

"Groundwater" (RCRA and UIC) means a water below the land surface in a zone of saturation.

"Hazardous ~~W~~waste" (RCRA and UIC) means a hazardous waste as defined in 35 Ill. Adm. Code 721.103.

"Hazardous waste management facility" ("HWM facility") means all contiguous land and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of "hazardous waste". A facility may consist of several "treatment", "storage", or "disposal" operational units (for example, one or more landfills, surface impoundments, or combinations of them).

"HWM facility" (RCRA) means "Hazardous Waste Management facility".

"Injection well" (RCRA and UIC) means a "well" into which "fluids" are being injected.

"Injection zone" (UIC) means a geological "formation", group of formations, or part of a formation receiving fluids through a "well".

"In operation" (RCRA) means a facility that is treating, storing, or disposing of "hazardous waste".

"Interim authorization" (RCRA) means approval by USEPA of the Illinois Hazardous Waste Management program that has met the requirements of Section 3006(g)(2) of RCRA and applicable requirements of 40 CFR 271 (19~~92~~96). This happened on May 17, 1982.

"Interstate agency" means an agency of two or more states established by or under an agreement or compact approved by the Congress, or any other agency of two or more states having substantial powers or duties pertaining to the control of pollution as determined and approved by the Administrator under the "appropriate Act and regulations".

"Major facility" means any RCRA or UIC "facility or activity" classified as such by the Regional Administrator or the Agency.

"Manifest" (RCRA and UIC) means the shipping document originated and signed by the "generator" that contains the information required by 35 Ill. Adm. Code 722.Subpart B.

"National Pollutant Discharge Elimination System" means the program for issuing, modifying, revoking and reissuing, terminating, monitoring, and enforcing permits and imposing and enforcing pretreatment requirements under Section 12(f) of the Environmental Protection Act and 35 Ill. Adm. Code 309.Subpart A and 310. The term includes an "approved program".

"New HWM facility" (RCRA) means a "Hazardous Waste Management facility" that began operation or for which construction commenced after November 19, 1980.

"New injection well" (UIC) means a "well" that began injection after the UIC program for the State of Illinois applicable to the well is approved.

"Off-site" (RCRA) means any site that is not "on-site".

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

"Owner or operator" means the owner or operator of any "facility or activity" subject to regulation under the RCRA or UIC programs.

"Permit" means an authorization, license, or equivalent control document issued to implement the requirements of this Part and 35 Ill. Adm. Code 703, 704, and 705.

"Permit" includes RCRA "permit by rule" (35 Ill. Adm. Code 703.141), UIC area permit (35 Ill. Adm. Code 704.162), and RCRA or UIC "Emergency Permit" (35 Ill. Adm. Code 703.221 and 704.163). "Permit" does not include RCRA interim status (35 Ill. Adm. Code 703.153 through 703.157), UIC authorization by rule (35 Ill. Adm. Code 704.Subpart C), or any permit that has not yet been the subject of final Agency action, such as a "Draft Permit" or a "Proposed Permit".

"Person" means any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, political subdivision, state agency, or any other legal entity, or their legal representative, agency, or assigns.

"Physical construction" (RCRA) means excavation, movement of earth, erection of forms or structures or similar activity to prepare an "HWM facility" to accept "hazardous waste".

"Plugging" (UIC) means the act or process of stopping the flow of water, oil, or gas into or out of a formation through a borehole or well penetrating that formation.

"POTW" means "publicly owned treatment works".

"Project" (UIC) means a group of wells in a single operation.

"Publicly owned treatment works" ("POTW") is as defined in 35 Ill. Adm. Code 310.

"Radioactive waste" (UIC) means any waste that contains radioactive material in concentrations that exceed those listed in 10 CFR 20, Appendix B, Table II, Column 2, incorporated by reference in 35 Ill. Adm. Code 720.111.

"RCRA" means the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act of 1976 (P.L. 94-580, as amended by P.L. 95-609, P.L. 96-510, 42 U.S.C. 6901 et seq. (199296)). For the purposes of regulation under 35 Ill. Adm. Code 700 through 705, 720 through 728, and 739, "RCRA" refers only to RCRA Subtitle C. This does not include the RCRA Subtitle D (municipal solid waste landfill) regulations, found in 35 Ill. Adm. Code 810 through 815, and the RCRA Subtitle I (underground storage tank) regulations found in 35 Ill. Adm. Code 731 and 732.

"RCRA permit" means a permit required under Section 21(f) of the Environmental Protection Act.

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

"Schedule of compliance" means a schedule of remedial measures included in a "permit", including an enforceable sequence of interim requirements (for example, actions, operations, or milestone events) leading to compliance with the "appropriate Act and regulations".

"SDWA" means the Safe Drinking Water Act (P.L. 93-523, as amended, 42 U.S.C. 300f et seq. (199296)).

"Site" means the land or water area where any "facility or activity" is physically located or conducted, including adjacent land used in connection with the facility or activity.

"SIC ~~C~~code" means codes pursuant to the Standard Industrial Classification Manual incorporated by reference in 35 Ill. Adm. Code 720.111.

"State" means the State of Illinois.

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

"State/EPA ~~A~~agreement" means an agreement between the Regional Administrator and the State that coordinates USEPA and State activities, responsibilities, and programs including those under the RCRA and SDWA.

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

"Stratum (plural strata)" (UIC) means a single sedimentary bed or layer, regardless of thickness, that consists of generally the same kind of rock material.

"Total dissolved solids" (UIC) means the total dissolved (filterable) solids as determined by use of the method specified in 40 CFR 136, incorporated by reference in 35 Ill. Adm. Code 720.111.

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

"Transferee" (UIC) means the owner or operator receiving ownership or operational control of the well.

"Transferor" (UIC) means the owner or operator transferring ownership or operational control of the well.

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

"Treatment" (RCRA) means any method, technique, process, including neutralization, designed to change the physical, chemical, or biological character or composition of any "hazardous waste" so as to neutralize such wastes, or so as to recover energy or material resources from the waste, or so as to render such wastes non-hazardous, or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume.

"UIC" means the Underground Injection Control program.

"Underground ~~I~~injection" (UIC) means a "well injection".

"Underground source of drinking water" ("USDW") (RCRA and UIC) means an "aquifer" or its portion:

Which:

Supplies any public water system; or

Contains a sufficient quantity of groundwater to supply a public water system; and

Currently supplies drinking water for human consumption; or

Contains less than 10,000 mg/1 total dissolved solids; and

That is not an "exempted aquifer".

"USDW" (RCRA and UIC) means an "underground source of drinking water".

"Wastewater treatment unit" means a device which:

Is part of a wastewater treatment facility that is subject to regulation under 35 Ill. Adm. Code 309.Subpart A or 310; and

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

Meets the definition of tank or tank system in 35 Ill. Adm. Code 720.110.

"Well" (UIC) means a bored, drilled, or driven shaft, or a dug hole, whose depth is greater than the largest surface dimension.

"Well injection" (UIC) 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.

BOARD NOTE: Derived from 40 CFR 144.3 (19~~94~~96) and 270.2 (19~~94~~96)~~, as amended at 60 Fed. Reg. 33914 (June 29, 1995)~~.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

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

PART 703
RCRA PERMIT PROGRAM

SUBPART A: GENERAL PROVISIONS

Section
703.100 Scope and Relation to Other Parts
703.101 Purpose
703.110 References

SUBPART B: PROHIBITIONS

Section
703.120 Prohibitions in General
703.121 RCRA Permits
703.122 Specific Inclusions in Permit Program
703.123 Specific Exclusions from Permit Program
703.124 Discharges of Hazardous Waste
703.125 Reapplications
703.126 Initial Applications
703.127 Federal Permits (Repealed)

SUBPART C: AUTHORIZATION BY RULE AND INTERIM STATUS

Section
703.140 Purpose and Scope

SUBPART D: APPLICATIONS

SUBPART E: SHORT TERM AND PHASED PERMITS

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

SOURCE: Adopted in R82-19, 53 PCB 131, at 7 Ill. Reg. 14289, effective October 12, 1983; amended in R83-24 at 8 Ill. Reg. 206, effective December 27, 1983; amended in R84-9 at 9 Ill. Reg. 11899, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 1110, effective January 2, 1986; amended in R85-23 at 10 Ill. Reg. 13284, effective July 28, 1986; amended in R86-1 at 10 Ill. Reg. 14093, effective August 12, 1986; amended in R86-19 at 10 Ill. Reg. 20702, effective December 2, 1986; amended

in R86-28 at 11 Ill. Reg. 6121, effective March 24, 1987; amended in R86-46 at 11 Ill. Reg. 13543, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19383, effective November 12, 1987; amended in R87-26 at 12 Ill. Reg. 2584, effective January 15, 1988; amended in R87-39 at 12 Ill. Reg. 13069, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 447, effective December 27, 1988; amended in R89-1 at 13 Ill. Reg. 18477, effective November 13, 1989; amended in R89-9 at 14 Ill. Reg. 6278, effective April 16, 1990; amended in R90-2 at 14 Ill. Reg. 14492, effective August 22, 1990; amended in R90-11 at 15 Ill. Reg. 9616, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14554, effective September 30, 1991; amended in R91-13 at 16 Ill Reg. 9767, effective June 9, 1992; amended in R92-10 at 17 Ill. Reg. 5774, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20794, effective November 22, 1993; amended in R93-16 at 18 Ill. Reg. 6898, effective April 26, 1994; amended in R94-7 at 18 Ill. Reg. 12392, effective July 29, 1994; amended in R94-5 at 18 Ill. Reg. 18316, effective December 20, 1994; amended in R95-6 at 19 Ill. Reg. 9920, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 11225, effective August 1, 1996; amended in R96-10/R97-3/R97-5 at 21 Ill. Reg. _____, effective _____.

SUBPART D: APPLICATIONS

Section 703.183 General Information

The following information is required in the Part B application for all HWM facilities, except as 35 Ill. Adm. Code 724.101 provides otherwise:

a) A general description of the facility;

b) Chemical and physical analyses of the hazardous wastes and hazardous debris to be handled at the facility. At a minimum, these analyses must contain all the information which must be known to treat, store or dispose of the wastes properly in accordance with 35 Ill. Adm. Code 724;

c) A copy of the waste analysis plan required by 35 Ill. Adm. Code 724.113(b) and, if applicable, 35 Ill. Adm. Code 724.113(c);

d) A description of the security procedures and equipment required by 35 Ill. Adm. Code 724.114, or a justification demonstrating the reasons for requesting a waiver of this requirement;

e) A copy of the general inspection schedule required by 35 Ill. Adm. Code 724.115(b). Include where applicable, as part of the inspection schedule, specific requirements in 35 Ill. Adm. Code 724.274, 724.293(i), 724.295, 724.326, 724.354, 724.373, 724.403, 724.702,

724.933, 724.952, 724.953, 724.958, 724.984, 724.985, 724.986, and 724.988~~, and 724.991~~;

f) A justification of any request for a waiver of the preparedness and prevention requirements of 35 Ill. Adm. Code 724.Subpart C;

g) A copy of the contingency plan required by 35 Ill. Adm. Code 724.Subpart D;

BOARD NOTE: Include, where applicable, as part of the contingency plan, specific requirements in 35 Ill. Adm. Code 724.327 and 724.355. 35 Ill. Adm. Code 724.355 has not yet been adopted.

h) A description of procedures, structures, or equipment used at the facility to:

1) Prevent hazards in unloading operations (for example, ramps, or special forklifts);

2) Prevent runoff from hazardous waste handling areas to other areas of the facility or environment, or to prevent flooding (for example, berms, dikes, or trenches);

3) Prevent contamination of water supplies;

4) Mitigate effects of equipment failure and power outages;

5) Prevent undue exposure of personnel to hazardous waste (for example, protective clothing); and

6) Prevent releases to the atmosphere.

i) A description of precautions to prevent accidental ignition or reaction of ignitable, reactive, or incompatible wastes, as required to demonstrate compliance with 35 Ill. Adm. Code 724.117, including documentation demonstrating compliance with 35 Ill. Adm. Code 724.117(c);

j) Traffic pattern, estimated volume (number and types of vehicles), and control (for example, show turns across traffic lanes and stacking lanes, if appropriate); describe access road surfacing and load bearing capacity; and show traffic control signals;

k) Facility location information, as required by Section 703.184;

l) An outline of both the introductory and continuing training programs by the owner or operator to prepare persons to operate or maintain the HWM facility in a safe manner, as required to demonstrate compliance with 35 Ill. Adm. Code 724.116. A brief description of how training will be designed to meet actual job tasks in accordance with requirements in 35 Ill. Adm. Code 724.116(a)(3);

m) A copy of the closure plan and, where applicable, the post-closure plan required by 35 Ill. Adm. Code 724.212, 724.218, and 724.297. Include where applicable, as part of the plans, specific requirements in 35 Ill. Adm. Code 724.278, 724.297, 724.328, 724.358, 724.380, 724.410, 724.451, 724.701, and 724.703;

n) For hazardous waste disposal units that have been closed, documentation that notices required under 35 Ill. ~~Adm~~ Adm. Code 724.219 have been filed;

o) The most recent closure cost estimate for the facility, prepared in accordance with 35 Ill. Adm. Code 724.242, and a copy of the documentation required to demonstrate financial assurance under 35 Ill. Adm. Code 724.243. For a new facility, a copy of the required documentation may be submitted 60 days prior to the initial receipt of hazardous wastes, if it is later than the submission of the Part B permit application;

p) Where applicable, the most recent post-closure cost estimate for the facility, prepared in accordance with 35 Ill. Adm. Code 724.244, plus a copy of the documentation required to demonstrate financial assurance under 35 Ill. Adm. Code 724.245. For a new facility, a copy of the required documentation may be submitted 60 days prior to the initial receipt of hazardous wastes, if it is later than the submission of the Part B permit application;

q) Where applicable, a copy of the insurance policy or other documentation which comprises compliance with the requirements of 35 Ill. Adm. Code 724.247. For a new facility, documentation showing the amount of insurance meeting the specification of 35 Ill. Adm. Code 724.247(a) and, if applicable, 35 Ill. Adm. Code 724.247(b) that the owner or operator plans to have in effect before initial receipt of hazardous waste for treatment, storage, or disposal. A request for an alternative level of required coverage for a new or existing facility may be submitted as specified in 35 Ill. Adm. Code 724.247(c);

r) A topographic map showing a distance of 1000 feet around the facility at a scale of 2.5 centimeters (1 inch) equal to not more than 61.0 meters

(200 feet). Contours must be shown on the map. The contour interval must be sufficient to clearly show the pattern of surface water flow in the vicinity of and from each operational unit of the facility. For example, contours with an interval of 1.5 meters (5 feet), if relief is greater than 6.1 meters (20 feet), or an interval of 0.6 meters (2 feet), if relief is less than 6.1 meters (20 feet). Owners and operators of HWM facilities located in mountainous areas shall use larger contour intervals to adequately show topographic profiles of facilities. The map must clearly show the following:

1) Map scale and date;

2) 100-year floodplain area;

3) Surface waters including intermittent streams;

4) Surrounding land uses (e.g., residential, commercial, agricultural, recreational, etc.);

5) A wind rose (i.e., prevailing windspeed and direction);

6) Orientation of the map (north arrow);

7) Legal boundaries of the HWM facility site;

8) Access control (e.g., fences, gates, etc.);

9) Injection and withdrawal wells both on-site and off-site;

10) Buildings; treatment, storage, or disposal operations; or other structures (e.g., recreation areas, runoff control systems, access and internal roads, storm, sanitary and process sewage systems, loading and unloading areas, fire control facilities, etc.);

11) Barriers for drainage or flood control;

12) Location of operational units within the HWM facility site, where hazardous waste is (or will be) treated, stored, or disposed (include equipment cleanup areas);

BOARD NOTE: For large HWM facilities, the Agency shall allow the use of other scales on a case by case basis.

s) Applicants shall submit such information as the Agency determines is necessary for it to determine whether to issue a permit and what conditions to impose in any permit issued; and

t) For land disposal facilities, if a case-by-case extension has been approved under 35 Ill. Adm. Code 728.105 or if a petition has been approved under 35 Ill. Adm. Code 728.106, a copy of the notice of approval of the extension or of approval of the petition is required~~.~~;

u) A summary of the pre-application meeting, along with a list of attendees and their addresses, and copies of any written comments or materials submitted at the meeting, as required under 35 Ill. Adm. Code 703.191(c).

BOARD NOTE: Derived from 40 CFR 270.14(b) (199~~4~~6), as amended at ~~59~~61 Fed. Reg. ~~62952~~59996 (~~Dec. 6, 1994~~Nov. 25, 1996).

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 703.191 Public Participation: Pre-Application Public Notice and Meeting

a) Applicability. The requirements of this Section shall apply to any RCRA Part B application seeking an initial permit for a hazardous waste management unit. The requirements of this Section shall also apply to any RCRA Part B application seeking renewal of a permit for such a unit, where the renewal application is proposing a significant change in facility operations. For the purposes of this Section, a "significant change" is any change that would qualify as a class 3 permit modification under Sections 703.283 and 703.Appendix A. The requirements of this Section do not apply to permit modifications under Sections 703.280 through 703.283 or to applications that are submitted for the sole purpose of conducting post-closure activities or post-closure activities and corrective action at a facility.

b) Prior to the submission of a RCRA Part B permit application for a facility, the applicant must hold at least one meeting with the public in order to solicit questions from the community and inform the community of its proposed hazardous waste management activities. The applicant shall post a sign-in sheet or otherwise provide a voluntary opportunity for attendees to provide their names and addresses.

c) The applicant shall submit to the Agency, as part of its RCRA Part B permit application, a summary of the meeting, along with the list of attendees and their addresses developed under subsection (b) of this

Section and copies of any written comments or materials submitted at the meeting, in accordance with Section 703.183.

d) The applicant must provide public notice of the pre-application meeting at least 30 days prior to the meeting. The applicant must maintain documentation of the notice and provide that documentation to the permitting agency upon request.

1) The applicant shall provide public notice in each of the following forms:

A) A newspaper advertisement. The applicant shall publish a notice in a newspaper of general circulation in the county that hosts the proposed location of the facility. The notice must fulfill the requirements set forth in subsection (d)(2) of this Section. In addition, the Agency shall instruct the applicant to publish the notice in newspapers of general circulation in adjacent counties, where the Agency determines that such publication is necessary to inform the affected public. The notice must be published as a display advertisement.

B) A visible and accessible sign. The applicant shall post a notice on a clearly marked sign at or near the facility. The notice must fulfill the requirements set forth in subsection (d)(2) of this Section. If the applicant places the sign on the facility property, then the sign must be large enough to be readable from the nearest point where the public would pass by the site.

C) A broadcast media announcement. The applicant shall broadcast a notice at least once on at least one local radio station or television station. The notice must fulfill the requirements set forth in subsection (d)(2) of this Section. The applicant may employ another medium with prior approval of the Agency.

D) A notice to the Agency. The applicant shall send a copy of the newspaper notice to the permitting agency and to the appropriate units of State and local government, in accordance with 35 Ill. Adm. Code 705.163(a).

2) The notices required under subsection (d)(1) of this Section must include:

A) The date, time, and location of the meeting;

B) A brief description of the purpose of the meeting;

C) A brief description of the facility and proposed operations, including the address or a map (e.g., a sketched or copied street map) of the facility location;

D) A statement encouraging people to contact the facility at least 72 hours before the meeting if they need special access to participate in the meeting; and

E) The name, address, and telephone number of a contact person for the applicant.

BOARD NOTE: Derived from 40 CFR 124.31 (1996).

Source: Added at 21 Ill. Reg. _____, effective _____)

Section 703.192 Public Participation: Public Notice of Application

a) Applicability. The requirements of this Section shall apply to any RCRA Part B application seeking an initial permit for a hazardous waste management unit. The requirements of this Section shall also apply to any RCRA Part B application seeking renewal of a permit for such a unit under 35 Ill. Adm. Code 702.125. The requirements of this Section do not apply to permit modifications under Sections 703.280 through 703.283 or a permit application submitted for the sole purpose of conducting post-closure activities or post-closure activities and corrective action at a facility.

b) Notification at application submittal.

1) The Agency shall provide public notice as set forth in 35 Ill. Adm. Code 705.161, and notice to appropriate units of State and local government as set forth in 35 Ill. Adm. Code 705.163(a)(5), that a Part B permit application has been submitted to the Agency and is available for review.

2) The notice shall be published within 30 calendar days after the application is received by the Agency. The notice must include:

A) The name and telephone number of the applicant's contact person;

B) The name and telephone number of the appropriate Agency regional office, as directed by the Agency, and a mailing address to which information, opinions, and inquiries may be directed throughout the permit review process;

C) An address to which people can write in order to be put on the facility mailing list;

D) The location where copies of the permit application and any supporting documents can be viewed and copied;

E) A brief description of the facility and proposed operations, including the address or a map (e.g., a sketched or copied street map) of the facility location on the front page of the notice; and

F) The date that the application was submitted.

c) Concurrent with the notice required under subsection (b) of this Section, the Agency shall place the permit application and any supporting documents in a location accessible to the public in the vicinity of the facility or at the Agency regional office appropriate for the facility.

BOARD NOTE: Derived from 40 CFR 124.32 (1996).

Source: Added at 21 Ill. Reg. _____, effective _____)

Section 703.193 Public Participation: Information Repository

a) Applicability. The requirements of this Section shall apply to any application seeking a RCRA permit for a hazardous waste management unit.

b) The Agency shall assess the need for an information repository on a case-by-case basis. When assessing the need for an information repository, the Agency shall consider a variety of factors, including the following: the level of public interest; the type of facility; the presence of an existing repository; and the proximity to the nearest copy of the administrative record. If the Agency determines, at any time after submittal of a permit application, that there is a need for a repository, then the Agency shall notify the facility that it must establish and maintain an information repository. (See Section 703.248 for similar provisions relating to the information repository during the life of a permit.)

c) The information repository must contain all documents, reports, data, and information deemed necessary by the Agency to fulfill the purposes for which the repository is established. The Agency will have the discretion to limit the contents of the repository.

d) The information repository must be located and maintained at a site chosen by the facility. If the Agency determines that the chosen site is unsuitable for the purposes and persons for which it was established, due to problems with the location, hours of availability, access, or other relevant considerations, then the Agency shall specify a more appropriate site.

e) The Agency shall specify requirements for the applicant for informing the public about the information repository. At a minimum, the Agency shall require the facility to provide a written notice about the information repository to all individuals on the facility mailing list.

f) The facility owner or operator shall be responsible for maintaining and updating the repository with appropriate information throughout a time period specified by the Agency. The Agency may close the repository if it determines that the repository is no longer needed based on its consideration of the factors in subsection (b) of this Section.

BOARD NOTE: Derived from 40 CFR 124.33 (1996).

Source: Added at 21 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, owners and operators of tanks, surface impoundments, or containers that use air emission controls in accordance with the requirements of 35 Ill. Adm. Code 724.Subpart CC shall provide the following additional information:

a) Documentation for each floating roof cover installed on a tank subject to 35 Ill. Adm. Code 724.984~~(b)(2) or 724.984(b)(3)~~(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~~(c)~~(e)(1) or (f)(1).

b) Identification of each container area subject to the requirements of 35 Ill. Adm. Code 724.Subpart CC and certification by the owner or operator that the requirements of this Subpart are met.

c) Documentation for each enclosure used to control air pollutant emissions from containers in accordance with the requirements of 35 Ill. Adm. Code 724.984(d)(5) or 724.986~~(b)(2)(A)~~(e)(1)(ii) that includes ~~information prepared by the owner or operator or provided by the manufacturer or vendor describing the enclosure design, and certification by the owner or operator that the enclosure meets the specifications listed in 35 Ill. Adm. Code 725.987(b)(2)(B)~~records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure, as specified in "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111.

d) Documentation for each floating membrane cover installed on a surface impoundment in accordance with the requirements of 35 Ill. Adm. Code 724.985(c) that includes information prepared by the owner or operator or provided by the cover manufacturer or vendor describing the cover design, and certification by the owner or operator that the cover meets the specifications listed in 35 Ill. Adm. Code ~~725.986(e)~~264.985(c)(1).

e) Documentation for each closed-vent system and control device installed in accordance with the requirements of 35 Ill. Adm. Code 724.987 that includes design and performance information, as specified in Section 703.124(c) and (d).

f) An emission monitoring plan for both Method 21 in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, and control device monitoring methods. This plan must include the following information: monitoring points, monitoring methods for control devices, monitoring frequency, procedures for documenting exceedances, and procedures for mitigating noncompliances.

g) When an owner or operator of a facility subject to 35 Ill. Adm. Code 725.Subpart CC cannot comply with 35 Ill. Adm. Code 724.Subpart CC by the date of permit issuance, the schedule of implementation required under 35 Ill. Adm. Code 725.982.

BOARD NOTE: Derived from 40 CFR 270.27(a)~~, added at 59 Fed. Reg. 62952 (Dec. 6, 1994)~~ (1996), as amended at 61 Fed. Reg. 59996 (Nov. 25, 1996).

(Source: Amended at 21 Ill. Reg. _____, effective _____)

SUBPART E: SHORT TERM AND PHASED PERMITS

Section 703.221 Emergency Permits

a) Notwithstanding any other provision of this Part or 35 Ill. Adm. Code 702 or 705, in the event that the Agency finds an imminent and substantial endangerment to human health or the environment the Agency may issue a temporary emergency permit:

1) To a non-permitted facility to allow treatment, storage or disposal of hazardous waste; or

2) To a permitted facility to allow treatment, storage or disposal of a hazardous waste not covered by an effective permit.

b) This emergency permit:

1) May be oral or written. If oral, it ~~shall~~must be followed in five days by a written emergency permit;

2) Shall not exceed 90 days in duration;

3) Shall clearly specify the hazardous wastes to be received and the manner and location of their treatment, storage or disposal;

4) May be terminated by the Agency at any time without process if it determines that termination is appropriate to protect human health and the environment;

5) Shall be accompanied by a public notice published under 35 Ill. Adm. Code 705.162 including:

A) Name and address of the office granting the emergency authorization;

B) Name and location of the permitted HWM facility;

C) A brief description of the wastes involved;

D) A brief description of the action authorized and reasons for authorizing it; and

E) Duration of the emergency permit; and

6) Shall incorporate, to the extent possible and not inconsistent with the emergency situation, all applicable requirements of this Part and 35 Ill. Adm. Code 724.

7) Emergency permits which would authorize actions not in compliance with Board rules, other than procedural requirements, require a variance or provisional variance pursuant to Title IX of the Environmental Protection Act and 35 Ill. Adm. Code 104.

~~(Board Note~~BOARD NOTE: ~~See~~Derived from 40 CFR 270.61 (1996).~~)~~

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 703.223 Incinerator Conditions During Trial Burn

For the purposes of determining feasibility of compliance with the performance standards of 35 Ill. Adm. Code 724.443 and of determining adequate operating conditions under 35 Ill. Adm. Code 724.445, the Agency shall establish conditions in the permit to a new hazardous waste incinerator to be effective during the trial burn.

a) Applicants shall propose a trial burn plan, prepared under subsection (b) ~~below~~of this Section with Part B of the permit application;

b) The trial burn plan must include the following information:

1) An analysis of each waste or mixture of wastes to be burned that includes:

A) Heat value of the waste in the form and composition in which it will be burned;

B) Viscosity (if applicable), or description of physical form of the waste;

C) An identification of any hazardous organic constituents listed in 35 Ill. Adm. Code 721.Appendix H, that are present in the waste to be burned, except that the applicant need not analyze for constituents listed in 35 Ill. Adm. Code 721.Appendix H that would reasonably not be expected to be found in the waste. The constituents excluded from analysis must be identified, and the basis

for their exclusion stated. The waste analysis must rely on analytical techniques specified in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods", U.S. EPA Publication SW-846, as incorporated by reference at 35 Ill. Adm. Code 720.111 and Section 703.110, or their equivalent;

D) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by the analytical methods specified in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods", U.S. EPA Publication SW-846, as incorporated by reference at 35 Ill. Adm. Code 720.111 and Section 703.110, or their equivalent;

2) A detailed engineering description of the incinerator for which the permit is sought including:

A) Manufacturer's name and model number of incinerator (if available);

B) Type of incinerator;

C) Linear dimensions of the incinerator unit including the cross sectional area of combustion chamber;

D) Description of the auxiliary fuel system (type/feed);

E) Capacity of prime mover;

F) Description of automatic waste feed cut-off system(s);

G) Stack gas monitoring and pollution control equipment;

H) Nozzle and burner design;

I) Construction materials;

J) Location and description of temperature, pressure and flow indicating and control devices;

3) 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) A detailed test schedule for each waste for which the trial burn is planned including date(s), duration, quantity of waste to be burned and other factors relevant to the Agency's decision under subsection (e) ~~below~~of this Section;

5) A detailed test protocol, including, for each waste identified, the ranges of temperature, waste feed rate, combustion gas velocity, use of auxiliary fuel and any other relevant parameters that will be varied to affect the destruction and removal efficiency of the incinerator;

6) A description of, and planned operating conditions for, any emission control equipment that will be used;

7) Procedures for rapidly stopping waste feed, shutting down the incinerator and controlling emissions in the event of an equipment malfunction;

8) Such other information as the Agency reasonably finds necessary to determine whether to approve the trial burn plan in light of the purposes of this subsection (b) and the criteria in subsection (e) ~~below~~of this Section. Such information must be requested by the Agency pursuant to 35 Ill. Adm. Code 705.123.

c) The Agency, in reviewing the trial burn plan, shall evaluate the sufficiency of the information provided and shall require the applicant, pursuant to 35 Ill. Adm. Code 705.123, to supplement this information, if necessary, to achieve the purposes of this ~~subsection~~Section;

d) Based on the waste analysis data in the trial burn plan, the Agency shall specify as trial Principal Organic Hazardous Constituents (POHCs), those constituents for which destruction and removal efficiencies must be calculated during the trial burn. These trial POHCs must be specified by the Agency based on its estimate of the difficulty of incineration of the constituents identified in the waste analysis, their concentration or mass in the waste feed, and, for wastes listed in 35 Ill. Adm. Code 721.Subpart D, the hazardous waste organic constituent of constituents identified in 35 Ill. Adm. Code 721.Appendix G or H as the basis for listing;

e) The Agency shall approve a trial burn plan if it finds that:

1) The trial burn is likely to determine whether the incinerator performance standard required by 35 Ill. Adm. Code 724.443 can be met;

2) The trial burn itself will not present an imminent hazard to human health or the environment;

3) The trial burn will help the Agency to determine operating requirements to be specified under 35 Ill. Adm. Code 724.445; and

4) The information sought in subsections (e)(1) and (e)(3) ~~above~~of this Section cannot reasonably be developed through other means;

f) The Agency shall send a notice to all persons on the facility mailing list, as set forth in 35 Ill. Adm. Code 705.161(a), and to the appropriate units of State and local government, as set forth in 35 Ill. Adm. Code 705.163(a)(5), announcing the scheduled commencement and completion dates for the trial burn. The applicant may not commence the trial burn until after the Agency has issued such notice.

1) This notice must be mailed within a reasonable time period before the scheduled trial burn. An additional notice is not required if the trial burn is delayed due to circumstances beyond the control of the facility or the Agency.

2) This notice must contain:

A) The name and telephone number of the applicant's contact person;

B) The name and telephone number of the Agency regional office appropriate for the facility;

C) The location where the approved trial burn plan and any supporting documents can be reviewed and copied; and

D) An expected time period for commencement and completion of the trial burn;

~~f~~g) During each approved trial burn (or as soon after the burn as is practicable), the applicant shall make the following determinations:

1) A quantitative analysis of the trial POHCs, in the waste feed to the incinerator;

2) A quantitative analysis of the exhaust gas for the concentration and mass emissions of the trial POHC~~'~~s, molecular oxygen and hydrogen chloride (HCl);

3) A quantitative analysis of the scrubber water (if any), ash residues and other residues, for the purpose of estimating the fate of the trial POHCs;

4) A computation of destruction and removal efficiency (DRE), in accordance with the DRE formula specified in 35 Ill. Adm. Code 724.443(a);

5) If the HCl (hydrogen chloride) emission rate exceeds 1.8 kilograms of HCl per hour (4 pounds per hour), a computation of HCl removal efficiency in accordance with 35 Ill. Adm. Code 724.443(b);

6) A computation of particulate emissions, in accordance with 35 Ill. Adm. Code 724.443(c);

7) An identification of sources of fugitive emissions and their means of control;

8) A measurement of average, maximum and minimum temperatures and combustion gas velocity;

9) A continuous measurement of carbon monoxide (CO) in the exhaust gas;

10) Such other information as the Agency specifies as necessary to ensure that the trial burn will determine compliance with the performance standards in 35 Ill. Adm. Code 724.443 and to establish the operating conditions required by 35 Ill. Adm. Code 724.445 as necessary to meet that performance standard~~.~~;

~~g~~h) The applicant shall submit to the Agency a certification that the trial burn has been carried out in accordance with the approved trial burn plan, and shall submit the results of all the determinations required in subsection ~~(f) above~~(g) of this Section. This submission must be made within 90 days of completion of the trial burn, or later if approved by the Agency;

~~h~~i) All data collected during any trial burn must be submitted to the Agency following the completion of the trial burn;

~~i~~j) All submissions required by this ~~subsection~~ Section must be certified on behalf of the applicant by the signature of a person authorized to sign a permit application or a report under 35 Ill. Adm. Code 702.126;

~~j~~k) Based on the results of the trial burn, the Agency shall set the operating requirements in the final permit according to 35 Ill. Adm. Code 724.445. The permit modification must proceed as a minor modification according to Section 703.280.

BOARD NOTE: Derived from 40 CFR 270.62(~~a~~b)~~(1993), as amended at 58 Fed. Reg. 46051 (Aug. 31, 1993)~~ (1996).

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 703.225 Trial Burns for Existing Incinerators

For the purpose of determining feasibility of compliance with the performance standards of 35 Ill. Adm. Code 724.443 and of determining adequate operating conditions under 35 Ill. Adm. Code 724.445, the applicant for a permit for an existing hazardous waste incinerator shall prepare and submit a trial burn plan and perform a trial burn in accordance with Sections 703.205(b) and 703.223(b) through (~~i~~e) and (g) through (j), or, instead, submit other information as specified in Section 703.205(c). The Agency shall announce its intention to approve the trial burn plan in accordance with the timing and distribution requirements of Section 703.223(f). The contents of the notice must include: the name and telephone number of a contact person at the facility; the name and telephone number of a contact office at the Agency; the location where the trial burn plan and any supporting documents can be reviewed and copied; and a schedule of the activities that are required prior to permit issuance, including the anticipated time schedule for Agency approval of the plan and the time period during which the trial burn would be conducted. Applicants submitting information under Section 703.205(a) are exempt from compliance with 35 Ill. Adm. Code 724.443 and 724.445 and, therefore, are exempt from the requirement to conduct a trial burn. Applicants ~~who~~that submit trial burn plans and receive approval before submission of a permit application shall complete the trial burn and submit the results, specified in Section 703.223(~~f~~g), with Part B of the permit application. If completion of this process conflicts with the date set for submission of the Part B application, the applicant shall contact the Agency to establish a later date for submission of the Part B application or the trial burn results. Trial burn results must be submitted prior to issuance of the permit. When the applicant submits a trial burn plan with Part B of the permit application, the Agency shall specify a time period prior to permit issuance in which the trial burn must be conducted and the results submitted.

BOARD NOTE: Derived from 40 CFR 270.62(d) (19~~88~~96)~~, as amended at 54 Fed. Reg. 4288, January 30, 1989~~.~~)~~

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 703.232 Permits for Boilers and Industrial Furnaces Burning Hazardous Waste

a) General. Owners and operators of new boilers and industrial furnaces (those not operating under the interim status standards of 35 Ill. Adm. Code 726.203) are subject to subsection (b) through (f) ~~below~~of this Section. Boilers and industrial furnaces operating under the interim status standards of 35 Ill. Adm. Code 726.203 are subject to subsection (g) ~~below~~of this Section.

b) Permit operating periods for new boilers and industrial furnaces. A permit for a new boiler or industrial furnace must specify appropriate conditions for the following operating periods:

1) Pretrial burn period. For the period beginning with initial introduction of hazardous waste and ending with initiation of the trial burn, and only for the minimum time required to bring the boiler or industrial furnace to a point of operation readiness to conduct a trial burn, not to exceed 720 hours operating time when burning hazardous waste, the Agency shall establish in the Pretrial Burn Period of the permit conditions, including but not limited to allowable hazardous waste feed rates and operating conditions. The Agency shall extend the duration of this operational period once, for up to 720 additional hours, at the request of the applicant when good cause is shown. The permit most be modified to reflect the extension according to Section 703.280 et seq.

A) Applicants must submit a statement, with ~~part~~ Part B of the permit application, that suggests the conditions necessary to operate in compliance with the standards of 35 Ill. Adm. Code 726.204 through 726.207 during this period. This statement should include, at a minimum, restrictions on the applicable operating requirements identified in 35 Ill. Adm. Code 726.202 (e).

B) The Agency shall review this statement and any other relevant information submitted with ~~part~~ Part B of the permit application and specify requirements for this period sufficient to meet the performance standards of 35 Ill.

Adm. Code 726.204 through 726.207 based on the Agency's engineering judgment.

2) Trial burn period. For the duration of the trial burn, the Agency shall establish conditions in the permit for the purposes of determining feasibility of compliance with the performance standards of 35 Ill. Adm. Code 726.204 through 726.207 and determining adequate operating conditions under 35 Ill. Adm. Code 726.202(e). Applicants shall propose a trial burn plan, prepared under subsection (c) ~~below~~of this Section, to be submitted with ~~part~~ Part B of the permit application.

3) Post-trial burn period.

A) For the period immediately following completion of the trial burn, and only for the minimum period sufficient to allow sample analysis, data computation and submission of the trial burn results by the applicant, and review of the trial burn results and modification of the facility permit by the Agency to reflect the trial burn results, the Agency shall establish the operating requirements most likely to ensure compliance with the performance standards of 35 Ill. Adm. Code 726.204 through 726.207 based on the Agency's engineering judgment.

B) Applicants shall submit a statement, with ~~part~~ Part B of the application, that identifies the conditions necessary to operate during this period in compliance with the performance standards of 35 Ill. Adm. Code 726.204 through 726.207. This statement should include, at a minimum, restrictions on the operating requirements provided by 35 Ill. Adm. Code 726.202 (e).

C) The Agency shall review this statement and any other relevant information submitted with ~~part~~ Part B of the permit application and specify requirements of this period sufficient to meet the performance standards of 35 Ill. Adm. Code 726.204 through 726.207 based on the Agency's engineering judgment.

4) Final permit period. For the final period of operation the Agency shall develop operating requirements in conformance with 35 Ill. Adm. Code 726.202(e) that reflect conditions in the trial burn plan and are likely to ensure compliance with the performance standards of 35 Ill. Adm. Code 726.204 through 726.207. Based

on the trial burn results, the Agency shall make any necessary modifications to the operating requirements to ensure compliance with the performance standards. The permit modification must proceed according to Section 703.280 et seq.

c) Requirements for trial burn plans. The trial burn plan must include the following information. The Agency, in reviewing the trial burn plan, shall evaluate the sufficiency of the information provided and may require the applicant to supplement this information, if necessary, to achieve the purposes of this subsection.

1) An analysis of each feed stream, including hazardous waste, other fuels, and industrial furnace feed stocks, as fired, that includes:

A) Heating value, levels of antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, thallium, total chlorine/chloride, and ash; and

B) Viscosity or description of the physical form of the feed stream;.

2) An analysis of each hazardous waste, as fired, including:

A) An identification of any hazardous organic constituents listed in 35 Ill. Adm. Code 721.Appendix H that are present in the feed stream, except that the applicant need not analyze for constituents listed in 721.Appendix H that would reasonably not be expected to be found in the hazardous waste. The constituents excluded from analysis must be identified as the basis for this exclusion explained. The analysis must be conducted in accordance with analytical techniques specified in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods", U.S. EPA Publication SW-846, as incorporated by reference at 35 Ill. Adm. Code 720.111 and Section 703.110, or their equivalent.

B) An approximate quantification of the hazardous constituents identified in the hazardous waste, within the precision produced by the analytical methods specified in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods", U.S. EPA Publication SW-846, as incorporated by reference at 35 Ill. Adm. Code 720.111 and Section 703.110, or other equivalent.

C) A description of blending procedures, if applicable, prior to firing the hazardous waste, including a detailed analysis of the hazardous waste prior to blending, an analysis of the material with which the hazardous waste prior to blending, an analysis of the material with which the hazardous waste is blended, and blending ratios.

3) A detailed engineering description of the boiler or industrial furnace, including:

A) Manufacturer's name and model number of the boiler or industrial furnace;

B) Type of boiler or industrial furnace;

C) Maximum design capacity in appropriate units;

D) Description of the ~~Feed~~ feed system for the hazardous waste~~,~~ and, as appropriate, other fuels and industrial furnace feedstocks;

E) Capacity of hazardous waste feed system;

F) Description of automatic hazardous waste feed cutoff system(s); ~~and~~

G) Description of any pollution control system; and

H) Description of stack gas monitoring and any pollution control monitoring systems.

4) A detailed description of sampling and monitoring procedures including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and sample analysis.

5) A detailed test schedule for each hazardous waste for which the trial burn is planned, including date(s), duration, quantity of hazardous waste to be burned, and other factors relevant to the Agency's decision under subsection (b)(2) ~~above~~of this Section.

6) A detailed test protocol, including, for each hazardous waste identified, the ranges of hazardous waste feed rate, and, as appropriate, the feed rates of other fuels and industrial furnace

feedstocks, and any other relevant parameters that may affect the ability of the boiler or industrial furnace to meet the performance standards in 35 Ill. Adm. Code 726.204 through 726.207.

7) A description of and planned operating conditions for any emission control equipment that will be used.

8) Procedures for rapidly stopping the hazardous waste feed and controlling emissions in the event of an equipment malfunction.

9) Such other information as the Agency finds necessary to determine whether to approve the trial burn plan in light of the purposes of this subsection and the criteria in subsection (b)(2) ~~above~~of this Section.

d) Trial burn procedures.

1) A trial burn must be conducted to demonstrate conformance with the standards of 35 Ill. Adm. Code 726.104 through 726.107.

2) The Agency shall approve a trial burn plan if the Agency finds that:

A) The trial burn is likely to determine whether the boiler or industrial furnace can meet the performance standards of 35 Ill. Adm. Code 726.104 through 726.107.

B) The trial burn itself will not present an imminent hazard to human health and the environment;

C) The trial burn will help the Agency to determine operating requirements to be specified under 35 Ill. Adm. Code 726.102(e); and

D) The information sought in the trial burn cannot reasonably be developed through other means.

3) The Agency shall send a notice to all persons on the facility mailing list, as set forth in 35 Ill. Adm. Code 705.161(a), and to the appropriate units of State and local government, as set forth in 35 Ill. Adm. Code 705.163(a)(5), announcing the scheduled commencement and completion dates for the trial burn. The applicant may not commence the trial burn until after the Agency has issued such notice.

A) This notice must be mailed within a reasonable time period before the trial burn. An additional notice is not required if the trial burn is delayed due to circumstances beyond the control of the facility or the Agency.

B) This notice must contain:

i) The name and telephone number of applicant's contact person;

ii) The name and telephone number of the Agency regional office appropriate for the facility;

iii) The location where the approved trial burn plan and any supporting documents can be reviewed and copied; and

iv) An expected time period for commencement and completion of the trial burn.

~~3~~4) The applicant shall submit to the Agency a certification that the trial burn has been carried out in accordance with the approved trial burn plan, and submit the results of all the determinations required in subsection (c) ~~above~~ of this Section. The Agency shall, in the trial burn plan, require that the submission be made within 90 days after completion of the trial burn, or later if the Agency determines that a later date is acceptable.

~~4~~5) All data collected during any trial burn must be submitted to the Agency following completion of the trial burn.

~~5~~6) All submissions required by this subsection must be certified on behalf of the applicant by the signature of a person authorized to sign a permit application or a report under 35 Ill. Adm. Code 702.126.

e) Special procedures for DRE trial burns. When a DRE trial burn is required under 35 Ill. Adm. Code 726.104, the Agency shall specify (based on the hazardous waste analysis data and other information in the trial burn plan) as trial Principal Organic Hazardous Constituents (POHCs) those compounds for which destruction and removal efficiencies must be calculated during the trial burn. These trial POHCs will be specified by the Agency based on information including the Agency's estimate of the difficulty of destroying the constituents identified in the hazardous waste analysis, their concentrations or mass

in the hazardous waste feed, and, for hazardous waste containing or derived from wastes listed in 35 Ill. Adm. Code 721.Subpart D, the hazardous waste organic constituent(s) identified in 35 Ill. Adm. Code 721.Appendix G as the basis for listing.

f) Determinations based on trial burn. During each approved trial burn (or as soon after the burn as is practicable), the applicant shall make the following determinations:

1) A quantitative analysis of the levels of antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, thallium, silver, and chlorine/chloride~~,~~ in the feed streams (hazardous waste, other fuels, and industrial furnace feedstocks);

2) When a DRE trial burn is required under 35 Ill. Adm. Code 726.204(a):

A) A quantitative analysis of the trial POHCs in the hazardous waste feed;

B) A quantitative analysis of the stack gas for the concentration and mass emissions of the trial POHCs; and

C) A computation of (DRE), in accordance with the DRE formula specified in 35 Ill. Adm. Code 726.204(a).

3) When a trial burn for chlorinated dioxins and furans is required under 35 Ill. Adm. Code 726.204(e), a quantitative analysis of the stack gas for the concentration and mass emission rate of the 2,3,7,8-chlorinated tetra- <u>through</u> octa-congeners of chlorinated dibenzo-p-dioxins and furans, and a computation showing conformance with the emission standard.

4) When a trial burn for PM, metals, or HCl/Chlorine gas is required under 35 Ill. Adm. Code 726.205, 726.206(c) or (d) or 726.207(b)(2) or (c), a quantitative analysis of the stack gas for the concentrations and mass emissions of PM, metals, or HCl and chlorine gas and computations showing conformance with the applicable emission performance standards;

5) When a trial burn for DRE, metals, and HCl/Chlorine gas is required under 35 Ill. Adm. Code 726.204(a), 726.206(c) or (d), or 726.207(b)(2) or (c), a quantitative analysis of the scrubber water (if any), ash residues, other residues, and products for the

purpose of estimating the fate of the trial POHCs, metals, and chlorine/chloride;

6) An identification of sources of fugitive emissions and their means of control;

7) A continuous measurement of carbon monoxide (CO), oxygen, and, where required, hydrocarbons (HC), in the stack gas; and

8) Such other information as the Agency specifies as necessary to ensure that the trial burn will determine compliance with the performance standards 35 Ill. Adm. Code 726.204 through 726.207 and to establish the operating conditions required by 35 Ill. Adm. Code 726.204 through 726.207 and of determining adequate operating conditions under 35 Ill. Adm. Code 726.203, and to establish the operating conditions required by 35 Ill. Adm. Code 726.202(e) as necessary to meet those performance standards.

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

trial burn plan with ~~part~~ Part B of the permit application, the trial burn must be conducted and the results submitted within a time period prior to permit issuance to be specified by the Agency.

BOARD NOTE: Derived from 40 CFR 270.66 (199~~2~~6)~~, as amended at 58 Fed. Reg. 46051 (Aug. 31, 1993)~~.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

SUBPART F: PERMIT CONDITIONS OR DENIAL

Section 703.240 Permit Denial

The Agency may, pursuant to the procedures of 35 Ill. Adm. Code 705, deny the permit application either in its entirety or only as to the active life of a HWM facility or unit ~~only~~.

BOARD NOTE: Derived from 40 CFR 270.29 (1996)~~, as adopted at 54 Fed. Reg. 9607, March 7, 1989.~~

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 703.248 Information Repository

The Agency may require the permittee to establish and maintain an information repository at any time, based on the factors set forth in Section 703.193(b). The information repository shall be governed by the provisions in Section 703.193(c) through (f).

BOARD NOTE: Derived from 40 CFR 270.30(m) (1996).

(Source: Added at 21 Ill. Reg. _____, effective _____)

SUBPART G: CHANGES TO PERMITS

Section 703.260 Transfer

a) A permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or reissued (under subsection (b) or Section 703.272) to identify the new permittee and incorporate such other requirements as are necessary under the appropriate Act. The new owner or operator to whom the permit is transferred shall comply with all the terms and conditions specified in such permit.

b) Changes in the ownership or operational control of a facility must be made as a Class 1 modification with the prior written approval of the Agency in accordance with Section 703.281. The new owner or operator shall submit a revised permit application no later than 90 days prior to the scheduled change. A written agreement containing a specific date for transfer of permit responsibility between the current and new permittees must also be submitted to the Agency. When a transfer of ownership or operational control occurs, the old owner or operator shall comply with the requirements of 35 Ill. Adm. Code 724.Subpart H (Financial Requirements), until the new owner or operator has demonstrated compliance with that Subpart. The new owner or operator shall demonstrate compliance with that Subpart within six months after the date of change of operational control of the facility. Upon demonstration to the Agency by the new owner or operator of compliance with that Subpart, the Agency shall notify the old owner or operator that the old owner or operator no longer needs to comply with that Subpart as of the date of demonstration.

BOARD NOTE: Derived from 40 CFR 270.40, ~~as amended at 53 Fed. Reg. 37934, September 28, 1988.~~ (1996).

BOARD NOTE: The new operator may be required to employ a chief operator ~~who~~that is certified pursuant to 35 Ill. Adm. Code 745.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

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

PART 720
HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL

SUBPART A: GENERAL PROVISIONS

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

SUBPART B: DEFINITIONS

Section

SUBPART C: RULEMAKING PETITIONS AND OTHER PROCEDURES

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

SOURCE: Adopted in R81-22, 43 PCB 427, at 5 Ill. Reg. 9781, effective May 17, 1982; amended and codified in R81-22, 45 PCB 317, at 6 Ill. Reg. 4828, effective May 17, 1982; amended in R82-19 at 7 Ill. Reg. 14015, effective October 12, 1983; amended in R84-9, 53 PCB 131 at 9 Ill. Reg. 11819, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 968, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 13998, effective August 12, 1986; amended in R86-19 at 10 Ill. Reg. 20630, effective December 2, 1986; amended in R86-28 at 11 Ill. Reg. 6017, effective March 24, 1987; amended in R86-46 at 11 Ill. Reg. 13435, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19280, effective November 12, 1987; amended in R87-26 at 12 Ill. Reg. 2450, effective January 15, 1988; amended in R87-39 at 12 Ill. Reg. 12999, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 362, effective December 27, 1988; amended in R89-1 at 13 Ill. Reg. 18278, effective November 13, 1989; amended in R89-2 at 14 Ill. Reg. 3075, effective February 20, 1990; amended in R89-9 at 14 Ill. Reg. 6225, effective April 16, 1990; amended in R90-10 at 14 Ill. Reg. 16450, effective September 25, 1990; amended in R90-17 at 15 Ill. Reg. 7934, effective May 9, 1991; amended in R90-11 at 15 Ill. Reg. 9323, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14446, effective September 30, 1991; amended in R91-13 at 16 Ill. Reg. 9489, effective June 9, 1992; amended in R92-1 at 16 Ill. Reg. 17636, effective November 6, 1992; amended in R92-10 at 17 Ill. Reg. 5625, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20545, effective November 22, 1993; amended in R93-16 at 18 Ill. Reg. 6720, effective April 26,

1994; amended in R94-7 at 18 Ill. Reg. 12160, effective July 29, 1994; amended in R94-17 at 18 Ill. Reg. 17480, effective November 23, 1994; amended in R95-6 at 19 Ill. Reg. 9508, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 10929, August 1, 1996; amended in R96-10/R97-3/R97-5 at 21 Ill. Reg. _____, effective _____.

SUBPART A: GENERAL PROVISIONS

Section 720.101 Purpose, Scope, and Applicability

a) This Part provides definitions of terms, general standards and overview information applicable to 35 Ill. Adm. Code 720 through 725, ~~and~~ 728, 733, and 739.

b) In this Part:

2) Section 720.103 establishes rules of grammatical construction for 35 Ill. Adm. Code 720 through 725, ~~and~~ 728, 733, and 739.

3) Section 720.110 defines terms which are used in 35 Ill. Adm. Code 720 through 725, ~~and~~ 728, 733, and 739.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 720.102 Availability of Information; Confidentiality of Information

a) Availability and confidentiality of information is governed by Illinois law, including Sections 7 and 7.1 of the Environmental Protection Act ~~(Ill. Rev. Stat. 1983, ch. 111 1/2, pars. 1007 and 1007.1)~~ [415 ILCS 5/7 and 7.1] and 35 Ill. Adm. Code 101.107 and 120.

b) Information required under 35 Ill. Adm. Code 722.153(a) and 722.183 that is submitted in a notification of intent to export a hazardous waste will be provided to the U.S. Department of State and the appropriate authorities in the transit and receiving or importing countries regardless of any claims of confidentiality or trade secret.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

SUBPART B: DEFINITIONS

Section 720.111 References

a) The following publications are incorporated by reference:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ASTM D 2879-86, Standard Test Method for Vapor Pressure-Temperature Relationship and Initial

Decomposition Temperature of Liquids by Isoteniscope, approved October 31, 1986.

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

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

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

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

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

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

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

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

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

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

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA Publication number SW-846 (Third Edition, November, 1986), as amended

by Updates I (July, 1992), II (September, 1994), IIA (August, 1993), and IIB (January, 1995) (Document Number 955-001-00000-1).

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

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

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

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

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

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

"Guidance on Air Quality Models", Revised 1986. (Document number PB86-245-248 (Guideline) and PB88-150-958 (Supplement)).

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

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

"Petitions to Delist Hazardous Wastes -- A Guidance Manual, Second Edition", EPA/530-~~SW-85-003~~R-93-007, ~~April, 1985~~March, 1993. (Document Number PB ~~85-19448~~93-169 365).

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

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

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

OECD Guideline for Testing of Chemicals, Method 301B: "CO_2 Evolution (Modified Sturm Test)", adopted 17 July 1992.

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

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

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

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

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

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

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

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

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

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

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

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

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

10 CFR 20, Appendix B (1994~~4~~6)

40 CFR 51.100(ii) (1994~~4~~6)

40 CFR 51, Subpart W (1994~~4~~6)

40 CFR 52.741, Appendix B (1996)

40 CFR 60 (1994~~4~~6)~~, as amended at 59 Fed. Reg. 62924 (Dec. 6, 1994)~~

40 CFR 61, Subpart V (1994~~4~~6)

40 CFR 136 (1994~~4~~6)~~, as amended at 60 Fed. Reg. 17160 (Apr. 4, 1995)~~

40 CFR 142 (1994~~4~~6)

40 CFR 220 (1994~~4~~6)

40 CFR 260.20 (1994~~4~~6)

40 CFR 264 (1994~~4~~6)

40 CFR 268.Appendix IX (1994~~4~~6)

40 CFR 302.4, 302.5 and 302.6 (1994~~4~~6)

40 CFR 761 (1994~~4~~6)

49 CFR 171 (1995~~5~~6)

49 CFR 173 (1995~~5~~6)

49 CFR 178 (1994~~4~~6)

c) Federal Statutes

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

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

d) This Section incorporates no later editions or amendments.

(Source: Amended at 21 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

SUBPART A: GENERAL PROVISIONS

Section
721.101 Purpose and Scope
721.102 Definition of Solid Waste
721.103 Definition of Hazardous Waste
721.104 Exclusions
721.105 Special Requirements for Hazardous Waste Generated by Small Quantity Generators
721.106 Requirements for Recyclable Materials

SUBPART B: CRITERIA FOR IDENTIFYING THE CHARACTERISTICS OF HAZARDOUS WASTE AND FOR LISTING HAZARDOUS WASTES

SUBPART C: CHARACTERISTICS OF HAZARDOUS WASTE

SUBPART D: LISTS OF HAZARDOUS WASTE

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

SOURCE: Adopted in R81-22, 43 PCB 427, at 5 Ill. Reg. 9781, effective May 17, 1982; amended and codified in R81-22, 45 PCB 317, at 6 Ill. Reg. 4828, effective as noted in 35 Ill. Adm. Code May 17, 1982; amended in R82-18, 51 PCB 31, at 7 Ill. Reg. 2518, effective February 22, 1983; amended in R82-19, 53 PCB 131, at 7 Ill. Reg. 13999, effective October 12, 1983; amended in R84-34, 61 PCB 247, at 8 Ill. Reg. 24562, effective December 11, 1984; amended in R84-9, at 9 Ill. Reg. 11834, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 998, effective January 2, 1986; amended in R85-2 at 10 Ill. Reg. 8112, effective May 2, 1986; amended in R86-1 at 10 Ill. Reg. 14002, effective August 12, 1986; amended in R86-19 at 10 Ill. Reg. 20647, effective December 2, 1986; amended in R86-28 at 11 Ill. Reg. 6035, effective March 24, 1987; amended in R86-46 at 11 Ill. Reg. 13466, effective August 4, 1987; amended in R87-32 at 11 Ill. Reg. 16698, effective September 30, 1987; amended in R87-5 at 11 Ill. Reg. 19303, effective November 12, 1987; amended in R87-26 at 12 Ill. Reg. 2456, effective January 15, 1988; amended in R87-30 at 12 Ill. Reg. 12070, effective July 12, 1988; amended in R87-39 at 12 Ill. Reg. 13006, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 382, effective December 27, 1988; amended in R89-1 at 13 Ill. Reg. 18300, effective November 13, 1989; amended in R90-2 at 14 Ill. Reg. 14401, effective August 22, 1990; amended in R90-10 at 14 Ill. Reg. 16472, effective September 25, 1990; amended in R90-17 at 15 Ill. Reg. 7950, effective May 9, 1991; amended in R90-11 at 15 Ill. Reg. 9332, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14473, effective September 30, 1991; amended in R91-12 at 16 Ill. Reg. 2155, effective January 27, 1992; amended in R91-26 at 16 Ill. Reg. 2600, effective February 3, 1992; amended in R91-13 at 16 Ill. Reg. 9519, effective June 9, 1992; amended in R92-1 at 16 Ill. Reg. 17666, effective November 6, 1992; amended in R92-10 at 17 Ill. Reg. 5650, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20568, effective November 22, 1993; amended in R93-16 at 18 Ill. Reg. 6741, effective April 26, 1994; amended in R94-7 at 18 Ill. Reg. 12175, effective July 29, 1994; amended in R94-17 at 18 Ill. Reg. 17490, effective November 23, 1994; amended in R95-6 at 19 Ill. Reg. 9522, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 10963, August 1, 1996; amended in R96-10/R97-3/R97-5 at 21 Ill. Reg. _____, effective _____.

SUBPART A: GENERAL PROVISIONS

a) Materials that are not solid wastes. The following materials are not solid wastes for the purpose of this Part:

1) Sewage:

A) Domestic sewage; and

B) Any mixture of domestic sewage and other waste that passes through a sewer system to publicly-owned treatment works for treatment.

C) "Domestic sewage" means untreated sanitary wastes that pass through a sewer system.

2) Industrial wastewater discharges that are point source discharges with NPDES permits issued by the Agency pursuant to Section 12(f) of the Environmental Protection Act and 35 Ill. Adm. Code 309.

BOARD NOTE: This exclusion applies only to the actual point source discharge. It does not exclude industrial wastewaters while they are being collected, stored, or treated before discharge, nor does it exclude sludges that are generated by industrial wastewater treatment.

3) Irrigation return flows.

4) Source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.).

5) Materials subjected to in-situ mining techniques that are not removed from the ground as part of the extraction process.

6) Pulping liquors (i.e., black liquor) that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process, unless accumulated speculatively, as defined in Section 721.101(c).

7) Spent sulfuric acid used to produce virgin sulfuric acid unless it is accumulated speculatively, as defined in Section 721.101(c).

8) Secondary materials that are reclaimed and returned to the original process or processes in which they were generated where they are reused in the production process, provided:

A) Only tank storage is involved, and the entire process through completion of reclamation is closed by being entirely connected with pipes or other comparable enclosed means of conveyance;

B) Reclamation does not involve controlled flame combustion (such as occurs in boilers, industrial furnaces or incinerators);

C) The secondary materials are never accumulated in such tanks for over twelve months without being reclaimed; and

D) The reclaimed material is not used to produce a fuel or used to produce products that are used in a manner constituting disposal.

9) Wood preserving wastes.

A) Spent wood preserving solutions that have been used and which are reclaimed and reused for their original intended purpose; and

B) Wastewaters from the wood preserving process that have been reclaimed and which are reused to treat wood.

10) Hazardous waste numbers K060, K087, K141, K142, K143, K144, K145, K147, and K148, and any wastes from the coke by-products processes that are hazardous only because they exhibit the toxicity characteristic specified in Section 721.124, when subsequent to generation these materials are recycled to coke ovens, to the tar recovery process as a feedstock to produce coal tar, or are mixed with coal tar prior to the tar's sale or refining. This exclusion is conditioned on there being no land disposal of the waste from the point it is generated to the point it is recycled to coke ovens, to tar recovery, to the tar refining processes, or prior to when it is mixed with coal.

11) Nonwastewater splash condenser dross residue from the treatment of hazardous waste number K061 in high temperature metals recovery units, provided it is shipped in drums (if shipped) and not land disposed before recovery.

12) Recovered oil from petroleum refining, exploration, and production and from transportation incident thereto that is to be inserted into the petroleum refining process (SIC Code 2911) ~~along with normal process streams prior to crude distillation or catalytic cracking~~at or before a point (other than direct insertion into a coker) where contaminants are removed. This exclusion applies to recovered oil stored or transported prior to insertion, except that the oil must not be stored in a manner involving placement on the land and the oil must not be accumulated speculatively before being recycled. Recovered oil is oil that has been reclaimed from secondary materials (such as wastewater) generated from normal petroleum refining, exploration, and production, and from transportation practices. Recovered oil includes oil that is recovered from refinery wastewater collection and treatment systems, oil recovered from oil and gas drilling operations, and oil recovered from wastes removed from crude oil storage tanks. Recovered oil does not include (among other things) oil-bearing hazardous wastes listed in ~~721.~~Subpart D of this Part (e.g., K048 through K052, F037, and F038). However, oil recovered from such wastes may be considered recovered oil. Recovered oil also does not include used oil as defined in 35 Ill. Adm. Code 739.100.

b) Solid wastes that are not hazardous wastes. The following solid wastes are not hazardous wastes:

1) Household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered (e.g., refuse-derived fuel), or reused. "Household waste" means any waste material (including garbage, trash, and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels, and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas). A resource recovery facility managing municipal solid waste shall not be deemed to be treating, storing, disposing of, or otherwise managing hazardous wastes for the purposes of regulation under this Part, if such facility:

A) Receives and burns only:

i) Household waste (from single and multiple dwellings, hotels, motels, and other residential sources); and

ii) Solid waste from commercial or industrial sources that does not contain hazardous waste, and

B) Such facility does not accept hazardous waste and the owner or operator of such facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in such facility.

BOARD NOTE: The U.S. Supreme Court determined, in City of Chicago v. Environmental Defense Fund, Inc., -- U.S. --, 114 S. Ct. 1588 (1994), that this exclusion and RCRA section 3001(i) (42 U.S.C. § 6921(i)) do not exclude the ash from facilities covered by this subsection from regulation as a hazardous waste. At 59 Fed. Reg. 29372 (June 7, 1994), USEPA granted facilities managing ash from such facilities that is determined a hazardous waste under ~~721.~~Subpart C of this Part until December 7, 1994 to file a Part A permit application pursuant to 35 Ill. Adm. Code 703.181. At 60 Fed. Reg. 6666 (Feb. 3, 1995), USEPA stated that it interpreted that the point at which ash becomes subject to RCRA Subtitle C regulation is when that material leaves the combustion building (including connected air pollution control equipment).

2) Solid wastes generated by any of the following that are returned to the soil as fertilizers:

A) The growing and harvesting of agricultural crops, or

B) The raising of animals, including animal manures.

3) Mining overburden returned to the mine site.

4) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels, except as provided in 35 Ill. Adm. Code 726.212 for facilities that burn or process hazardous waste.

5) Drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas, or geothermal energy.

6) Chromium wastes:

A) Wastes that fail the test for the toxicity characteristic (Sections 721.124 and 721.Appendix B) because chromium is present or which are ~~are~~ listed in ~~721.~~Subpart D of this Part due to the presence of chromium, that do not fail the test for the toxicity characteristic for any other constituent or which are not listed due to the presence of any other constituent, and that do not fail the test for any other characteristic, if it is shown by a waste generator or by waste generators that:

i) The chromium in the waste is exclusively (or nearly exclusively) trivalent chromium;

ii) The waste is generated from an industrial process that uses trivalent chromium exclusively (or nearly exclusively) and the process does not generate hexavalent chromium; and

iii) The waste is typically and frequently managed in non-oxidizing environments.

B) Specific wastes that meet the standard in subsection (b)(6)(A) ~~above~~of this Section (so long as they do not fail the test for the toxicity characteristic for any other constituent and do not exhibit any other characteristic) are:

i) Chrome (blue) trimmings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish, hair save/chrome tan/retan/wet finish, retan/wet finish, no beamhouse, through-the-blue, and shearling;

ii) Chrome (blue) shavings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish, hair save/chrome tan/retan/wet finish, retan/wet finish, no beamhouse, through-the-blue, and shearling;

iii) Buffing dust generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish,

hair save/chrome tan/retan/wet finish, retan/wet finish, no beamhouse, through-the-blue;

iv) Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish, hair save/chrome tan/retan/wet finish, retan/wet finish, no beamhouse, through-the-blue, and shearling;

v) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish, hair save/chrome tan/retan/wet finish, retan/wet finish, no beamhouse, through-the-blue, and shearling;

vi) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish, hair save/chrome tan/retan/wet finish, and through-the-blue;

vii) Waste scrap leather from the leather tanning industry, the shoe manufacturing industry, and other leather product manufacturing industries; and

viii) Wastewater treatment sludges from the production of titanium dioxide pigment using chromium-bearing ores by the chloride process.

7) Solid waste from the extraction, beneficiation, and processing of ores and minerals (including coal, phosphate rock, and overburden from the mining of uranium ore), except as provided by 35 Ill. Adm. Code 726.212 for facilities that burn or process hazardous waste. For purposes of this subsection, beneficiation of ores and minerals is restricted to the following activities: crushing, grinding, washing, dissolution, crystallization, filtration, sorting, sizing, drying, sintering, pelletizing, briquetting, calcining to remove water or carbon dioxide, roasting, autoclaving or chlorination in preparation for leaching (except where the roasting or autoclaving or chlorination and leaching sequence produces a final or intermediate product that does not undergo further beneficiation or processing), gravity concentration, magnetic separation, electrostatic separation,

floatation, ion exchange, solvent extraction, electrowinning, precipitation, amalgamation, and heap, dump, vat tank, and in situ leaching. For the purposes of this subsection, solid waste from the processing of ores and minerals includes only the following wastes:

A) Slag from primary copper processing,

B) Slag from primary lead processing,

C) Red and brown muds from bauxite refining,

D) Phosphogypsum from phosphoric acid production,

E) Slag from elemental phosphorus production,

F) Gasifier ash from coal gasification,

G) Process wastewater from coal gasification,

H) Calcium sulfate wastewater treatment plant sludge from primary copper processing,

I) Slag tailings from primary copper processing,

J) Fluorogypsum from hydrofluoric acid production,

K) Process wastewater from hydrofluoric acid production,

L) Air pollution control dust or sludge from iron blast furnaces,

M) Iron blast furnace slag,

N) Treated residue from roasting and leaching of chrome ore,

O) Process wastewater from primary magnesium processing by the anhydrous process,

P) Process wastewater from phosphoric acid production,

Q) Basic oxygen furnace and open hearth furnace air pollution control dust or sludge from carbon steel production,

R) Basic oxygen furnace and open hearth furnace slag from carbon steel production,

S) Chloride processing waste solids from titanium tetrachloride production, and

T) Slag from primary zinc smelting.

8) Cement kiln dust waste, except as provided by 35 Ill. Adm. Code 726.212 for facilities that burn or process hazardous waste.

9) Solid waste that consists of discarded arsenical-treated wood or wood products that fails the test for the toxicity characteristic for hazardous waste codes D004 through D017 and which is not a hazardous waste for any other reason if the waste is generated by persons that utilize the arsenical-treated wood and wood products for these materials' intended end use.

10) Petroleum-contaminated media and debris that fail the test for the toxicity characteristic of Section 721.124 (hazardous waste codes D018 through D043 only) and which are subject to corrective action regulations under 35 Ill. Adm. Code 731.

11) This subsection corresponds with 40 CFR 261.4(b)(11), which expired by its own terms on January 25, 1993. This statement maintains structural parity with USEPA regulations.

12) Used chlorofluorocarbon refrigerants from totally enclosed heat transfer equipment, including mobile air conditioning systems, mobile refrigeration, and commercial and industrial air conditioning and refrigeration systems, that uses chlorofluoro-carbons 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 ~~721.~~Subpart D of this Part, if these oil filters have been gravity hot-drained using one of the following methods:

A) Puncturing the filter anti-drain back valve or the filter dome end and hot-draining;

B) Hot-draining and crushing;

C) Dismantling and hot-draining; or

D) Any other equivalent hot-draining method that will remove used oil.

14) Used oil re-refining distillation bottoms that are used as feedstock to manufacture asphalt products.

c) Hazardous wastes that are exempted from certain regulations. A hazardous waste that is generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or in a manufacturing process unit, or an associated non-waste-treatment manufacturing unit, is not subject to regulation under 35 Ill. Adm. Code 702, 703, 705, and 722 through 725, and 728 or to the notification requirements of Section 3010 of RCRA until it exits the unit in which it was generated, unless the unit is a surface impoundment, or unless the hazardous waste remains in the unit more than 90 days after the unit ceases to be operated for manufacturing or for storage or transportation of product or raw materials.

d) Samples

1) Except as provided in subsection (d)(2) ~~below~~of this Section, a sample of solid waste or a sample of water, soil, or air that is collected for the sole purpose of testing to determine its characteristics or composition is not subject to any requirements of this Part or 35 Ill. Adm. Code 702, 703, 705, and 722 through 728. The sample qualifies when:

A) The sample is being transported to a laboratory for the purpose of testing;

B) The sample is being transported back to the sample collector after testing;

C) The sample is being stored by the sample collector before transport to a laboratory for testing;

D) The sample is being stored in a laboratory before testing;

E) The sample is being stored in a laboratory for testing but before it is returned to the sample collector; or

F) The sample is being stored temporarily in the laboratory after testing for a specific purpose (for example, until

conclusion of a court case or enforcement action where further testing of the sample may be necessary).

2) In order to qualify for the exemption in subsection (d)(1)(A) or (d)(1)(B) ~~above~~of this Section, a sample collector shipping samples to a laboratory and a laboratory returning samples to a sample collector shall:

A) Comply with U.S. Department of Transportation (DOT), U.S. Postal Service (USPS), or any other applicable shipping requirements; or

B) Comply with the following requirements if the sample collector determines that DOT, USPS, or other shipping requirements do not apply to the shipment of the sample:

i) Assure that the following information accompanies the sample: The sample collector's name, mailing address, and telephone number; the laboratory's name, mailing address, and telephone number; the quantity of the sample; the date of the shipment; and a description of the sample.

ii) Package the sample so that it does not leak, spill, or vaporize from its packaging.

3) This exemption does not apply if the laboratory determines that the waste is hazardous but the laboratory is no longer meeting any of the conditions stated in subsection (d)(1) ~~above~~of this Section.

e) Treatability study samples.

1) Except as is provided in subsection (e)(2) ~~below~~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) ~~above~~of this Section is applicable to samples of hazardous waste being collected and shipped for the purpose of conducting treatability studies provided that:

A) The generator or sample collector uses (in "treatability studies") no more than 10,000 kg of media contaminated with non-acute hazardous waste, 1000 kg of non-acute hazardous waste other than contaminated media, 1 kg of acute hazardous waste, or 2500 kg of media contaminated with acute hazardous waste for each process being evaluated for each generated wastestream;

B) The mass of each shipment does not exceed 10,000 kg; the 10,000 kg quantity may be all media contaminated with non-acute hazardous waste, or may include 2500 kg of media contaminated with acute hazardous waste, 1000 kg of hazardous waste, and 1 kg of acute hazardous waste;

C) The sample must be packaged so that it does not leak, spill, or vaporize from its packaging during shipment and the requirements of subsections (e)(2)(C)(i) or (e)(2)(C)(ii)~~, below~~of this Section~~,~~ are met.

i) The transportation of each sample shipment complies with U.S. Department of Transportation (DOT), U.S. Postal Service (USPS), or any other applicable shipping requirements; or

ii) If the DOT, USPS, or other shipping requirements do not apply to the shipment of the sample, the following information must accompany the sample: The name, mailing address, and telephone number of the originator of the sample; the name, address, and telephone number of the facility that will perform the treatability study; the

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

D) The sample is shipped to a laboratory or testing facility that is exempt under subsection (f) ~~below~~of this Section, or has an appropriate RCRA permit or interim status;

E) The generator or sample collector maintains the following records for a period ending three years after completion of the treatability study:

i) Copies of the shipping documents;

ii) A copy of the contract with the facility conducting the treatability study;

iii) Documentation showing: The amount of waste shipped under this exemption; the name, address, and USEPA identification number of the laboratory or testing facility that received the waste; the date the shipment was made; and whether or not unused samples and residues were returned to the generator; and

F) The generator reports the information required in subsection (e)(2)(E)(iii) ~~above~~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), ~~and~~ (e)(2)(B), ~~above~~ and (f)(4) ~~below~~of this Section, for up to an additional 5000 kg of media contaminated with non-acute hazardous waste, 500 kg of non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste, and 1 kg of acute hazardous waste:

A) In response to requests for authorization to ship, store, and conduct further treatability studies on additional quantities in advance of commencing treatability studies. Factors to be considered in reviewing such requests include the nature of the technology, the type of process (e.g., batch versus continuous), the size of the unit

undergoing testing (particularly in relation to scale-up considerations), the time or quantity of material required to reach steady-state operating conditions, or test design considerations, such as mass balance calculations.

B) In response to requests for authorization to ship, store, and conduct treatability studies on additional quantities after initiation or completion of initial treatability studies when: There has been an equipment or mechanical failure during the conduct of the treatability study, there is need to verify the results of a previously-conducted treatability study, there is a need to study and analyze alternative techniques within a previously-evaluated treatment process, or there is a need to do further evaluation of an ongoing treatability study to determine final specifications for treatment.

C) The additional quantities allowed and timeframes allowed in subsections (e)(3)(A) and (e)(3)(B) ~~above~~of this Section are subject to all the provisions in subsections (e)(1) and (e)(2)(B) through (e)(2)(F) ~~above~~of this Section. The generator or sample collector shall apply to the Agency and provide in writing the following information:

i) The reason why the generator or sample collector requires additional time or quantity of sample for the treatability study evaluation and the additional time or quantity needed;

ii) Documentation accounting for all samples of hazardous waste from the wastestream that have been sent for or undergone treatability studies, including the date each previous sample from the waste stream was shipped, the quantity of each previous shipment, the laboratory or testing facility to which it was shipped, what treatability study processes were conducted on each sample shipped, and the available results of each treatability study;

iii) A description of the technical modifications or change in specifications that will be evaluated and the expected results;

iv) If such further study is being required due to equipment or mechanical failure, the applicant

shall include information regarding the reason for the failure or breakdown and also include what procedures or equipment improvements have been made to protect against further breakdowns; and

v) Such other information as the Agency determines is necessary.

4) Final Agency determinations pursuant to this subsection may be appealed to the Board.

f) Samples undergoing treatability studies at laboratories or testing facilities. Samples undergoing treatability studies and the laboratory or testing facility conducting such treatability studies (to the extent such facilities are not otherwise subject to RCRA requirements) are not subject to any requirement of this Part, or of 35 Ill. Adm. Code 702, 703, 705, 722 through 726, and 728 or to the notification requirements of Section 3010 of the Resource Conservation and Recovery Act, provided that the requirements of subsections (f)(1) through (f)(11) ~~below~~of this Section are met. A mobile treatment unit may qualify as a testing facility subject to subsections (f)(1) through (f)(11) ~~below~~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) ~~below~~of this Section apply to the entire group of mobile treatment units collectively as if the group were one mobile treatment unit.

1) No less than 45 days before conducting treatability studies, the facility notifies the Agency in writing that it intends to conduct treatability studies under this subsection (f).

2) The laboratory or testing facility conducting the treatability study has a USEPA identification number.

3) No more than a total of 10,000 kg of "as received" media contaminated with non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste, or 250 kg of other "as received" hazardous waste is subject to initiation of treatment in all treatability studies in any single day. "As received" waste refers to the waste as received in the shipment from the generator or sample collector.

4) The quantity of "as received" hazardous waste stored at the facility for the purpose of evaluation in treatability studies does not exceed 10,000 kg, the total of which can include 10,000 kg of media contaminated with non-acute hazardous waste, 2500 kg

of media contaminated with acute hazardous waste, 1000 kg of non-acute hazardous wastes other than contaminated media, and 1 kg of acute hazardous waste. This quantity limitation does not include treatment materials (including nonhazardous solid waste) added to "as received" hazardous waste.

5) No more than 90 days have elapsed since the treatability study for the sample was completed, or no more than one year (two years for treatability studies involving bioremediation) has elapsed since the generator or sample collector shipped the sample to the laboratory or testing facility, whichever date first occurs. Up to 500 kg of treated material from a particular waste stream from treatability studies may be archived for future evaluation up to five years from the date of initial receipt. Quantities of materials archived are counted against the total storage limit for the facility.

6) The treatability study does not involve the placement of hazardous waste on the land or open burning of hazardous waste.

7) The facility maintains records for three years following completion of each study that show compliance with the treatment rate limits and the storage time and quantity limits. The following specific information must be included for each treatability study conducted:

A) The name, address, and USEPA identification number of the generator or sample collector of each waste sample;

B) The date the shipment was received;

C) The quantity of waste accepted;

D) The quantity of "as received" waste in storage each day;

E) The date the treatment study was initiated and the amount of "as received" waste introduced to treatment each day;

F) The date the treatability study was concluded;

G) The date any unused sample or residues generated from the treatability study were returned to the generator or sample collector or, if sent to a designated facility, the name of the facility and the USEPA identification number.

8) The facility keeps, on-site, a copy of the treatability study contract and all shipping papers associated with the transport of treatability study samples to and from the facility for a period ending three years from the completion date of each treatability study.

9) The facility prepares and submits a report to the Agency by March 15 of each year that estimates the number of studies and the amount of waste expected to be used in treatability studies during the current year, and includes the following information for the previous calendar year:

A) The name, address, and USEPA identification number of the facility conducting the treatability studies;

B) The types (by process) of treatability studies conducted;

C) The names and addresses of persons for whom studies have been conducted (including their USEPA identification numbers);

D) The total quantity of waste in storage each day;

E) The quantity and types of waste subjected to treatability studies;

F) When each treatability study was conducted; and

G) The final disposition of residues and unused sample from each treatability study.

10) The facility determines whether any unused sample or residues generated by the treatability study are hazardous waste under Section 721.103 and, if so, are subject to 35 Ill. Adm. Code 702, 703, and 721 through 728, unless the residues and unused samples are returned to the sample originator under the exemption of subsection (e) ~~exemption above~~of this Section.

11) The facility notifies the Agency by letter when the facility is no longer planning to conduct any treatability studies at the site.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

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

a) A generator is a conditionally exempt small quantity generator in a calendar month if it generates no more than 100 kilograms of hazardous waste in that month. 35 Ill. Adm. Code 700 explains the relation of this to the 100 kg/mo exception of 35 Ill. Adm. Code 809.

b) Except for those wastes identified in subsections (e), (f), (g) and (j) ~~below~~of this Section, a conditionally exempt small quantity generator's hazardous wastes are not subject to regulation under 35 Ill. Adm. Code 702, 703, 705 and 722 through 726 and 728, and the notification requirements of Section 3010 of Resource Conservation and Recovery Act, provided the generator complies with the requirements of subsections (f), (g) and (j) ~~below~~of this Section.

c) When making the quantity determinations of this Part and 35 Ill. Adm. Code 722, the generator must include all hazardous waste that it generates, except the following hazardous waste:

1) Hazardous waste that is exempt from regulation under Section 721.104(c) through (f), 721.106(a)(3), 721.107(a)(1), or 721.108;

2) Hazardous waste that is managed immediately upon generation only in on-site elementary neutralization units, wastewater treatment units, or totally enclosed treatment facilities, as defined in 35 Ill. Adm. Code 720.110;

3) Hazardous waste that is recycled, without prior storage or accumulation, only in an on-site process subject to regulation under Section 721.106(c)(2);

4) Hazardous waste that is used oil managed under the requirements of Section 721.106(a)(4) and 35 Ill. Adm. Code 739;

5) Hazardous waste that is spent lead-acid batteries managed under the requirements of 35 Ill. Adm. Code 726.Subpart G; and

6) Hazardous waste that is universal waste managed under Section 721.109 and 35 Ill. Adm. Code 733.

d) In determining the quantity of hazardous waste it generates, a generator need not include:

1) Hazardous waste when it is removed from on-site storage; or

2) Hazardous waste produced by on-site treatment (including reclamation) of its hazardous waste so long as the hazardous waste that is treated was counted once; or

3) Spent materials that are generated, reclaimed and subsequently reused on-site, so long as such spent materials have been counted once.

e) If a generator generates acute hazardous waste in a calendar month in quantities greater than set forth below, all quantities of that acute hazardous waste are subject to full regulation under 35 Ill. Adm. Code 702, 703, 705 and 722 through 726 and 728, and the notification requirements of Section 3010 of the Resource Conservation and Recovery Act:

1) A total of one kilogram of one or more of the acute hazardous wastes listed in Section 721.131, 721.132, or 721.133(e); or

2) A total of 100 kilograms of any residue or contaminated soil, waste or other debris resulting from the clean-up of a spill, into or on any land or water, of any one or more of the acute hazardous wastes listed in Section 721.131, 721.132, or 721.133(e).

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

f) In order for acute hazardous wastes generated by a generator of acute hazardous wastes in quantities equal to or less than those set forth in subsection (e)(1) or (e)(2) ~~above~~of this Section to be excluded from full regulation under this Section, the generator must comply with the following requirements:

1) 35 Ill. Adm. Code 722.111.

2) The generator may accumulate acute hazardous waste on-site. If the generator accumulates at any time acute hazardous wastes in quantities greater than set forth in subsection (e)(1) or (e)(2) ~~above~~of this Section, all of those accumulated wastes are subject to regulation under 35 Ill. Adm. Code 702, 703, 705 and 722 through 726 and 728, and the applicable notification requirements of Section 3010 of the Resource Conservation and Recovery Act.

The time period of 35 Ill. Adm. Code 722.134(a), for accumulation of wastes on-site, begins when the accumulated wastes exceed the applicable exclusion limit.

3) A conditionally exempt ~~shall~~small quantity generator may either treat or dispose of its acute hazardous waste in an on-site facility or ensure delivery to an off-site ~~storage,~~ treatment, storage, or disposal facility, ~~provided that if the on-site or off-site facility is located in the United States~~, ~~it fulfills~~any of which, if located in the United States, meets any of the following conditions-:

A) The facility is permitted under 35 Ill. Adm. Code 702 and 703;

B) The facility has interim status under 35 Ill. Adm. Code 702, 703 and 725;

C) The facility is authorized to manage hazardous waste by a state with a hazardous waste management program approved by USEPA pursuant to 40 CFR 271;

D) The facility is permitted, licensed, or registered by a state to manage municipal or industrial solid waste;

E) The facility is a facility that:

i) Beneficially uses or reuses or legitimately recycles or reclaims its waste; or

ii) Treats its waste prior to beneficial use or reuse, or legitimate recycling or reclamation; or

F) For universal waste managed under 35 Ill. Adm. Code 733 or 40 CFR 273, the facility is a universal waste handler or destination facility subject to the requirements of 35 Ill. Adm. Code 733 or 40 CFR 273.

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

1) 35 Ill. Adm. Code 722.111;

2) The conditionally exempt small quantity generator may accumulate hazardous waste on-site. If it accumulates at any time more than a total of 1000 kilograms of the generator's hazardous waste, all of those accumulated wastes are subject to regulation under the special provisions of 35 Ill. Adm. Code 722 applicable to generators of between 100 kg and 1000 kg of hazardous waste in a calendar month as well as the requirements of 35 Ill. Adm. Code 702, 703, 705 and 723 through 726 and 728, and the applicable notification requirements of Section 3010 of the Resource Conservation and Recovery Act. The time period of 35 Ill. Adm. Code 722.134(d) for accumulation of wastes on-site begins for a small quantity generator when the accumulated wastes exceed 1000 kilograms;

3) A conditionally exempt small quantity generator may either treat or dispose of its hazardous waste in an on-site facility or ensure delivery to an off-site ~~storage,~~ treatment, storage, or disposal facility, ~~provided that if the on-site or off-site facility is located in~~any of which, if located in the United States, ~~it fulfills~~meets any of the following conditions~~.~~:

A) The facility is permitted under 35 Ill. Adm. Code 702 and 703;

B) The facility has interim status under 35 Ill. Adm. Code 702, 703 and 725;

C) The facility is authorized to manage hazardous waste by a state with a hazardous waste management program approved by USEPA under 40 CFR 271 (1986);

D) The facility is permitted, licensed, or registered by a state to manage municipal or industrial solid waste;

E) The facility is a facility that:

i) Beneficially uses or re-uses, or legitimately recycles or reclaims the small quantity generator's waste; or

ii) Treats its waste prior to beneficial use or re-use, or legitimate recycling or reclamation; or

F) For universal waste managed under 35 Ill. Adm. Code 733 or 40 CFR 273, the facility is a universal waste

handler or destination facility subject to the requirements of 35 Ill. Adm. Code 733 or 40 CFR 273.

h) Hazardous waste subject to the reduced requirements of this Section may be mixed with non-hazardous waste and remain subject to these reduced requirements even though the resultant mixture exceeds the quantity limitations identified in this Section, unless the mixture meets any of the characteristics of hazardous wastes identified in Subpart C.

i) If a small quantity generator mixes a solid waste with a hazardous waste that exceeds a quantity exclusion level of this Section, the mixture is subject to full regulation.

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

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 721.106 Requirements for Recyclable Materials

a) Recyclable materials:

1) Hazardous wastes that are recycled are subject to the requirements for generators, transporters, and storage facilities of subsections (b) and (c) ~~below~~of this Section, except for the materials listed in subsections (a)(2) and (a)(3) ~~below~~of this Section. Hazardous wastes that are recycled will be known as "recyclable materials".

2) The following recyclable materials are not subject to the requirements of this Section but are regulated under 35 Ill. Adm. Code 726.Subparts C through H and all applicable provisions in 35 Ill. Adm. Code 702, 703, and 705.

A) Recyclable materials used in a manner constituting disposal (35 Ill. Adm. Code 726.Subpart C);

B) Hazardous wastes burned for energy recovery in boilers and industrial furnaces that are not regulated under 35 Ill. Adm. Code 724.Subpart O or 725.Subpart O (35 Ill. Adm. Code 726.Subpart H);

C) Recyclable materials from which precious metals are reclaimed (35 Ill. Adm. Code 726.Subpart F);

D) Spent lead-acid batteries that are being reclaimed (35 Ill. Adm. Code 726.Subpart G).

3) The following recyclable materials are not subject to regulation under 35 Ill. Adm. Code 722 through 726, 728, or 702, 703, or 705 and are not subject to the notification requirements of Section 3010 of the Resource Conservation and Recovery Act:

A) Industrial ethyl alcohol that is reclaimed except that, unless provided otherwise in an international agreement as specified in 35 Ill. Adm. Code 722.158:

i) A person initiating a shipment for reclamation in a foreign country and any intermediary arranging for the shipment shall comply with the requirements applicable to a primary exporter in 35 Ill. Adm. Code 722.153; 722.156(a)(1) through (a)(4), (a)(6), and (b); and 722.157; shall export such materials only upon consent of the receiving country and in conformance with the USEPA Acknowledgement of Consent, as defined in 35 Ill. Adm. Code 722.Subpart E; and shall provide a copy of the USEPA Acknowledgement of Consent to the shipment to the transporter transporting the shipment for export;

ii) Transporters transporting a shipment for export shall not accept a shipment if the transporter knows that the shipment does not conform to the USEPA Acknowledgement of Consent, shall ensure that a copy of the USEPA Acknowledgement of Consent accompanies the shipment, and shall ensure that it is delivered to the facility designated by the person initiating the shipment;

B) Scrap metal;

C) Fuels produced from the refining of oil-bearing hazardous wastes along with normal process streams at a petroleum refining facility if such wastes result from normal petroleum refining, production, and transportation

practices (this exemption does not apply to fuels produced from oil recovered from oil-bearing hazardous waste where such recovered oil is already excluded under Section 721.104(a)(12));

D) Petroleum refining wastes.

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

ii) Hazardous waste fuel produced from oil-bearing hazardous waste from petroleum refining production, and transportation practices, where such hazardous wastes are reintroduced into a refining process after a point at which contaminants are removed, so long as the fuel meets the used oil fuel specification under 35 Ill. Adm. Code 726.140(e); and

iii) Oil reclaimed from oil-bearing hazardous wastes from petroleum refining, production, and transportation practices, which reclaimed oil is burned as a fuel without reintroduction to a refining process, so long as the reclaimed oil meets the used oil fuel specification under 35 Ill. Adm. Code 726.140(e); and

E) Petroleum coke produced from petroleum refinery hazardous wastes containing oil by the same person that generated the wastes unless the resulting coke product exceeds one or more of the characteristics of hazardous waste in 721.Subpart C.

4) Used oil that is recycled and is also a hazardous waste solely because it exhibits a hazardous characteristic is not subject to the requirements of 35 Ill. Adm. Code 720 through 728, but it is

regulated under 35 Ill. Adm. Code 739. Used oil that is recycled includes any used oil that is reused for any purpose following its original use (including the purpose for which the oil was originally used). Such term includes, but is not limited to, oil that is re-refined, reclaimed, burned for energy recovery, or reprocessed.

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

b) Generators and transporters of recyclable materials are subject to the applicable requirements of 35 Ill. Adm. Code 722 and 723 and the notification requirements under Section 3010 of the Resource Conservation and Recovery Act, except as provided in subsection (a) ~~above~~of this Section.

c) Storage and recycling:

1) Owners or operators of facilities that store recyclable materials before they are recycled are regulated under all applicable provisions of 35 Ill. Adm. Code 702, 703, and 705; 724.Subparts A through L, AA, ~~and~~ BB, and CC; and 725.Subparts A through L, AA, ~~and~~ BB, and CC; 726; 728; and the notification requirement under Section 3010 of the Resource Conservation and Recovery Act, except as provided in subsection (a) ~~above~~of this Section. (The recycling process itself is exempt from regulation, except as provided in subsection (d) ~~below~~of this Section.)

2) Owners or operators of facilities that recycle recyclable materials without storing them before they are recycled are subject to the following requirements, except as provided in subsection (a) ~~above~~of this Section:

A) Notification requirements under Section 3010 of the Resource Conservation and Recovery Act,

B) 35 Ill. Adm. Code 725.171 and 725.172 (dealing with the use of the manifest and manifest discrepancies), and

C) subsection (d) ~~below~~of this Section.

d) Owners or operators of facilities required to have a RCRA permit pursuant to 35 Ill. Adm. Code 703 with hazardous waste management units that recycle hazardous wastes are subject to 35 Ill. Adm. Code 724.Subparts AA and BB and 725.Subparts AA and BB.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

SUBPART D: LISTS OF HAZARDOUS WASTE

Section 721.132 Hazardous Waste from Specific Sources

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

EPA Hazardous Waste No.	Industry and Hazardous Waste	Hazard Code
	Wood Preservation:	
K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote or pentachlorophenol.	(T)
	Inorganic Pigments:	
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:

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.	(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	(T)

	from cumene.	
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-trichloro-ethane.	(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 wastewaters from the production of dinitrotoluene via nitration of toluene.	(C,T)
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K114	Vicinals from the purification of ~~toluene diamine~~ toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.	(T)

K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.	(T)
K118	Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	(T)
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	(T)
K156	Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)	(T)
K157	Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)	(T)
K158	Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)	(T)
K159	Organics from the treatment of thiocarbamate wastes.	(T)
~~K160~~	~~Solids (including filter wastes, separation solids, and spent catalysts) from the production of thiocarbamates and solids from the treatment of thiocarbamate wastes.~~	~~(T)~~
K161	Purification solids (including filtration, evaporation, and centrifugation solids), bag house dust and floor sweepings from the production of dithiocarbamate acids and their salts. (This listing does not include K125 or K126.)	(R,T)
	Inorganic Chemicals:	
K071	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.	(T)

K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.	(T)
K106	Wastewater treatment sludge from the mercury cell process in chlorine production.	(T)

Pesticides:

K031	By-product salts generated in the production of MSMA and cacodylic acid.	(T)
K032	Wastewater treatment sludge from the production of chlordane.	(T)
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.	(T)
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.	(T)
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.	(T)
K035	Wastewater treatment sludges generated in the production of creosote.	(T)
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton.	(T)
K037	Wastewater treatment sludges from the production of disulfoton.	(T)
K038	Wastewater from the washing and stripping of phorate production.	(T)
K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate.	(T)
K040	Wastewater treatment sludge from the production of phorate.	(T)
K041	Wastewater treatment sludge from the production of toxaphene.	(T)
K098	Untreated process wastewater from the production of toxaphene.	(T)
K042	Heavy ends or distillation residues from the distillation of tetra-	(T)

	chlorobenzene in the production of 2,4,5-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 ethylenebis-dithiocarbamic 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 ethylenebisdi-thiocarbamic acid and its salts.	(T)
K131	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide.	(C,T)
K132	Spent absorbent and wastewater separator solids from the production of methyl bromide.	(T)
	Explosives:	
K044	Wastewater treatment sludges from the manufacturing and processing of explosives.	(R)
K045	Spent carbon from the treatment of wastewater containing explosives.	(R)
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.	(T)
K047	Pink/red water from TNT operations.	(R)
	Petroleum Refining:	
K048	Dissolved air flotation (DAF) float from the petroleum refining industry.	(T)
K049	Slop oil emulsion solids from the petroleum refining industry.	(T)

K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry.	(T)
K051	API separator sludge from the petroleum refining industry.	(T)
K052	Tank bottoms (leaded) from the petroleum refining industry.	(T)
	Iron and Steel:	
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.	(T)
K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332) (as defined in 35 Ill. Adm. Code 720.110).	(C,T)
	Primary Copper:	
K064	Acid plant blowdown slurry or sludge resulting from the thickening of blowdown slurry from primary copper production.	(T)
	Primary Lead:	
K065	Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities.	(T)
	Primary Zinc:	
K066	Sludge from treatment of process wastewater or acid plant blowdown from primary zinc production. BOARD NOTE: This waste listing is the subject of a judicial remand in American Mining Congress v. EPA, 907 F.2d 1179 (D.D.C. 1990). The Board intends that this listing not become enforceable in Illinois until the first date upon which the Board RCRA program becomes "not equivalent to the Federal program", within the meaning of Section 3006(b) of the RCRA Act, 42 U.S.C. 6926(b), the Board RCRA rules become "less stringent" than the USEPA rules, as this phrase is used in Section 3009, 42 U.S.C. 6929, or the Board RCRA rules are not "identical in substance" with the federal rules as that term is intended by 415 ILCS 5/7.2 and 22.4 as a result of some action by USEPA with regard to this listing in response to the American Mining Congress remand.	(T)

Primary Aluminum:

K088	Spent potliners from primary aluminum reduction.	(T)

Ferroalloys:

K090	Emission control dust or sludge from ferrochromiumsilicon production.	(T)
K091	Emission control dust or sludge from ferrochromium production.	(T)

Secondary Lead:

K069	Emission control dust/sludge from secondary lead smelting. 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.	(T)
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.	(T)

Veterinary Pharmaceuticals:

K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organoarsenic compounds.	(T)
K102	Residue from use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)

Ink Formulation:

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

Coking:

K060	Ammonia still lime sludge from coking operations.	(T)
K087	Decanter tank tar sludge from coking operations.	(T)
K141	Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke from coal or the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank tar sludges from coking operations).	(T)
K142	Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal.	(T)
K143	Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal.	(T)
K144	Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal.	(T)
K145	Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal.	(T)
K147	Tar storage tank residues from coal tar refining.	(T)
K148	Residues from coal tar distillation, including but not limited to, still bottoms.	(T)
K149	Distillation bottoms from the production of 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	(T)

wastewaters from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.

(Source: Amended at 21 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) ~~below~~of this Section.

b) Any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in subsection (e) or (f) ~~below~~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) ~~below~~of this Section, unless the container is empty as defined in Section 721.107(b)(3).

BOARD NOTE: Unless the residue is being beneficially used or reused, or legitimately recycled or reclaimed, or being accumulated, stored, transported, or treated prior to such use, reuse, recycling, or reclamation, the Board considers the residue to be intended for discard, and thus a hazardous waste. An example of a legitimate reuse of the residue would be where the residue remains in the container and the container is used to hold the same commercial chemical product or manufacturing chemical intermediate it previously held. An example of the discard of the residue would be where the drum is sent to a drum reconditioner that reconditions the drum but discards the residue.

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

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

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

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

Hazardous Waste No.	Chemical Abstracts No.	Substance
P023	107-20-0	Acetaldehyde, chloro-
P002	591-08-2	Acetamide, N-(aminothioxomethyl)
P057	640-19-7	Acetamide, 2-fluoro-
P058	62-74-8	Acetic acid, fluoro-, sodium salt

P002	591-08-2	1-Acetyl-2-thiourea
P003	107-02-8	Acrolein
P070	116-06-3	Aldicarb
P203	1646-88-4	Aldicarb sulfone
P004	309-00-2	Aldrin
P005	107-18-6	Allyl alcohol
P006	20859-73-8	Aluminum phosphide (R,T)
P007	2763-96-4	5-(Aminomethyl)-3-isoxazolol
P008	504-24-5	4-Aminopyridine
P009	131-74-8	Ammonium picrate (R)
P119	7803-55-6	Ammonium vanadate
P099	506-61-6	Argentate(1-), bis(cyano-C)-, potassium
P010	7778-39-4	Arsenic acid H_3AsO_4
P012	1327-53-3	Arsenic oxide As_2O_3
P011	1303-28-2	Arsenic oxide As_2O_5
P011	1303-28-2	Arsenic pentoxide
P012	1327-53-3	Arsenic trioxide
P038	692-42-2	Arsine, diethyl-
P036	696-28-6	Arsonous dichloride, phenyl-
P054	151-56-4	Aziridine
P067	75-55-8	Aziridine, 2-methyl
P013	542-62-1	Barium cyanide
P024	106-47-8	Benzenamine, 4-chloro-
P077	100-01-6	Benzenamine, 4-nitro-
P028	100-44-7	Benzene, (chloromethyl)-
P042	51-43-4	1,2-Benzenediol, 4-[1-hydroxy-2-(methyl-amino)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 (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-pyrrolo[2,3-b]indol-5-yl methylcarbamate ester (1:1)
P001	81-81-2*	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, and salts, when present at concentrations greater than 0.3%
P028	100-44-7	Benzyl chloride
P015	7440-41-7	Beryllium powder
P017	598-31-2	Bromoacetone
P018	357-57-3	Brucine
P045	39196-18-6	2-Butanone,3,3-dimethyl-1-(methylthio)-, O-[methylamino)carbonyl] oxime
P021	592-01-8	Calcium cyanide

P021	592-01-8	Calcium cyanide $Ca(CN)_2$
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-methylphenyl 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-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)-
P060	465-73-6	1,4,5,8-Di-methanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5beta,8beta,8abeta)-
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-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)-
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-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)-, 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	Diphosphoramide, octamethyl-
P111	107-49-3	Diphosphoric acid, tetraethyl ester
P039	298-04-4	Disulfoton
P049	541-53-7	Dithiobiuret
P185	26419-73-8	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O-[(methylamino)- carbonyl]oxime
P050	115-29-7	Endosulfan
P088	145-73-3	Endothall
P051	72-20-8	Endrin
P051	72-20-8	Endrin, and metabolites
P042	51-43-4	Epinephrine
P031	460-19-5	Ethanedinitrile
P194	23135-22-0	Ethanimidothioc acid, 2-(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	Ethylenimine
P097	52-85-7	Famphur
P056	7782-41-4	Fluorine
P057	640-19-7	Fluoroacetamide
P058	62-74-8	Fluoroacetic acid, sodium salt
P198	23422-53-9	Formetanate hydrochloride
P197	17702-57-7	Formparanate
P065	628-86-4	Fulminic acid, mercury (2+) salt (R,T)
P059	76-44-8	Heptachlor
P062	757-58-4	Hexaethyl tetraphosphate
P116	79-19-6	Hydrazinecarbothioamide
P068	60-34-4	Hydrazine, methyl-
P063	74-90-8	Hydrocyanic acid
P063	74-90-8	Hydrogen cyanide
P096	7803-51-2	Hydrogen phosphide
P060	465-73-6	Isodrin
P192	119-38-0	Isolan
P202	64-00-6	3-Isopropylphenyl-N-methylcarbamate

P007	2763-96-4	3(2H)-Isoxazolone, 5-(aminomethyl)-
P196	15339-36-3	Manganese, bis(dimethylcarbamodithioato-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-hexa-hydro-, 3-oxide
P059	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-hepta-chloro-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-Methyllactonitrile
P071	298-00-0	Methyl parathion
P190	1129-41-5	Metolcarb
P129	315-8-4	Mexacarbate
P072	86-88-4	alpha-Naphthylthiourea
P073	13463-39-3	Nickel carbonyl
P073	13463-39-3	Nickel carbonyl $Ni(CO)_4$, (T-4)-
P074	557-19-7	Nickel cyanide
P074	557-19-7	Nickel cyanide $Ni(CN)_2$
P075	54-11-5*	Nicotine, and salts
P076	10102-43-9	Nitric oxide
P077	100-01-6	p-Nitroaniline
P078	10102-44-0	Nitrogen dioxide
P076	10102-43-9	Nitrogen oxide NO
P078	10102-44-0	Nitrogen oxide NO_2
P081	55-63-0	Nitroglycerine (R)
P082	62-75-9	N-Nitrosodimethylamine
P084	4549-40-0	N-Nitrosomethylvinylamine
P085	152-16-9	Octamethylpyrophosphoramide
P087	20816-12-0	Osmium oxide OsO_4, (T-4)-

P087	20816-12-0	Osmium tetroxide
P088	145-73-3	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
P194	23135-22-0	Oxamyl
P089	56-38-2	Parathion
P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-
P128	315-18-4	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)
P199	2032-65-7	Phenol, (3,5-dimethyl-4-(methylthio)-, methyl-carbamate
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-[(ethyl-thio)methyl] ester
P044	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl]ester
P043	55-91-4	Phosphorofluoridic acid, bis(1-methylethyl)ester
P089	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
P040	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P097	52-85-7	Phosphorothioic acid, O-[4-[(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-(methyl-sulfonyl)-, O-[(methylamino)carbonyl] oxime
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime
P101	107-12-0	Propanenitrile
P027	542-76-7	Propanenitrile, 3-chloro-
P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-
P081	55-63-0	1,2,3-Propanetriol, trinitrate- (R)
P017	598-31-2	2-Propanone, 1-bromo-
P102	107-19-7	Propargyl alcohol
P003	107-02-8	2-Propenal
P005	107-18-6	2-Propen-1-ol
P067	75-55-8	1,2-Propylenimine
P102	107-19-7	2-Propyn-1-ol
P008	504-24-5	4-Pyridinamine
P075	54-11-5*	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)- and salts
P204	57-47-6	Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-
P114	12039-52-0	Selenious acid, dithallium (1 +) salt
P103	630-10-4	Selenourea
P104	506-64-9	Silver cyanide
P104	506-64-9	Silver cyanide AgCN
P105	26628-22-8	Sodium azide
P106	143-33-9	Sodium cyanide
P106	143-33-9	Sodium cyanide NaCN
P108	57-24-9*	Strychnidin-10-one, and salts
P018	357-57-3	Strychnidin-10-one, 2,3-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_2O_3
P114	12039-52-0	Thallium (I) selenite
P115	7446-18-6	Thallium (I) sulfate
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester
P045	39196-18-4	Thiofanox
P049	541-53-7	Thioimidodicarbonic diamide $[(H_2N)C(S)]_2NH$
P014	108-98-5	Thiophenol
P116	79-19-6	Thiosemicarbazide

P026	5344-82-1	Thiourea, (2-chlorophenyl)-
P072	86-88-4	Thiourea, 1-naphthalenyl-
P093	103-85-5	Thiourea, phenyl-
P123	8001-35-2	Toxaphene
P185	26419-73-8	Tirpate
P118	75-70-7	Trichloromethanethiol
P119	7803-55-6	Vanadic acid, ammonium salt
P120	1314-62-1	Vanadium oxide V_2O_5
P120	1314-62-1	Vanadium pentoxide
P084	4549-40-0	Vinylamine, N-methyl-N-nitroso-
P001	81-81-2*	Warfarin, and salts, when present at concentrations greater than 0.3%
P121	557-21-1	Zinc cyanide
P121	557-21-1	Zinc cyanide $Zn(CN)_2$
P205	137-30-4	Zinc, bis(dimethylcarbamodithioato-S,S')-
P122	1314-84-7	Zinc phosphide Zn_3P_2, when present at concentrations greater than 10% (R,T)
P205	137-30-4	Ziram

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

f) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products referred to in subsections (a) through (d) ~~above~~of this Section, are identified as toxic wastes (T) unless otherwise designated and are subject to the small quantity exclusion defined in Section 721.105(a) and (g). These wastes and their corresponding USEPA Hazardous Waste Numbers are:

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

Hazardous Waste No.	Chemical Abstracts No.	Substance
U394	30558-43-1	A2213
~~U365~~	~~2212-67-1~~	~~H-Azepine-1-carbothioic acid, hexahydro-, S-ethyl ester~~
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)-
UOO2	67-64-1	Acetone (I)
UOO3	75-05-8	Acetonitrile (I,T)
U004	98-86-2	Acetophenone
U005	53-96-3	2-Acetylaminofluorene
U006	75-36-5	Acetyl chloride (C,R,T)
U007	79-06-1	Acrylamide
U008	79-10-7	Acrylic acid (I)
U009	107-13-1	Acrylonitrile
U011	61-82-5	Amitrole
U012	62-53-3	Aniline (I,T)
U136	75-60-5	Arsinic acid, dimethyl-
U014	492-80-8	Auramine
U015	115-02-6	Azaserine
U010	50-07-7	Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1a-S-(1aalpha,8beta,8aalpha,8balpha)]-
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-chloro-phenyl)-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,T)
U201	108-46-3	1,3-Benzenediol
U127	118-74-1	Benzene, hexachloro-
U056	110-82-7	Benzene, hexahydro- (I)
U220	108-88-3	Benzene, methyl-
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-
U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-
U055	98-82-8	Benzene, (1-methylethyl)- (I)
U169	98-95-3	Benzene, nitro-
U183	608-93-5	Benzene, pentachloro-
U185	82-68-8	Benzene, pentachloronitro-
U020	98-09-9	Benzenesulfonic acid chloride (C,R)
U020	98-09-9	Benzenesulfonyl chloride (C,R)
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-
U061	50-29-3	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-
U247	72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy-
U023	98-07-7	Benzene, (trichloromethyl)-
U234	99-35-4	Benzene, 1,3,5-trinitro-
U021	92-87-5	Benzidene

U202	P 81-07-2	1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide, and salts
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
U090	94-58-6	1,3-Benzodioxole, 5-propyl-
U278	22781-23-3	1,3-Benzodioxol-4-ol, 2,2-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% 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
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-
~~U401~~	~~97-74-5~~	~~Bis(dimethylthiocarbamoyl) sulfide~~
~~U400~~	~~120-54-7~~	~~Bis(pentamethylene)thiuram tetrasulfide~~
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-[1alpha(Z), 7(2S*,3R*), 7aalpha]]-
U031	71-36-3	n-Butyl alcohol (I)
~~U392~~	~~2008-41-5~~	~~Butylate~~
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
~~U375~~	~~55406-53-6~~	~~Carbamic acid, butyl-, 3-iodo-2-propynyl 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(imino-carbonothioyl)]bis-, dimethyl ester
U097	79-44-7	Carbamic chloride, dimethyl-
~~U379~~	~~136-30-1~~	~~Carbamodithioic acid, dibutyl, sodium salt~~
~~U277~~	~~95-06-7~~	~~Carbamodithioic acid, diethyl-, 2-chloro-2-propenyl ester~~
~~U381~~	~~148-18-5~~	~~Carbamodithioic acid, diethyl-, sodium salt~~
~~U383~~	~~128-03-0~~	~~Carbamodithioic acid, dimethyl, potassium salt~~
~~U382~~	~~128-04-1~~	~~Carbamodithioic acid, dimethyl-, sodium salt~~
~~U376~~	~~144-34-3~~	~~Carbamodithioic acid, dimethyl-, tetraanhydro-sulfide with orthothioselenious acid~~
U114	P 111-54-6	Carbamodithioic acid, 1,2-ethanediylbis-, salts and esters
~~U378~~	~~51026-28-9~~	~~Carbamodithioic acid, (hydroxymethyl)methyl-, monopotassium salt~~
~~U384~~	~~137-42-8~~	~~Carbamodithioic acid, methyl-, monosodium salt~~
~~U377~~	~~137-41-7~~	~~Carbamodithioic acid, methyl,- monopotassium salt~~
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
~~U392~~	~~2008-41-5~~	~~Carbamothioic acid, bis(2-methylpropyl)-, S-ethyl ester~~
~~U391~~	~~1114-71-2~~	~~Carbamothioic acid, butylethyl-, S-propyl ester~~
~~U386~~	~~1134-23-2~~	~~Carbamothioic acid, cyclohexylethyl-, S-ethyl ester~~
~~U390~~	~~759-94-4~~	~~Carbamothioic acid, dipropyl-, S-ethyl ester~~
U387	52888-80-9	Carbamothioic acid, dipropyl-, S-(phenyl-methyl) ester
~~U385~~	~~1929-77-7~~	~~Carbamothioic acid, dipropyl-, S-propyl ester~~
U279	63-25-2	Carbaryl
U372	10605-21-7	Carbendazim
U367	1563-38-8	Carbofuran phenol
U215	6533-73-9	Carbonic acid, dithallium (1+) salt
U033	353-50-4	Carbonic difluoride
U156	79-22-1	Carbonochloridic acid, methyl ester (I,T)
U033	353-50-4	Carbon oxyfluoride (R,T)
U211	56-23-5	Carbon tetrachloride

U034	75-87-6	Chloral
U035	305-03-3	Chlorambucil
U036	57-74-9	Chlordanealpha 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
~~U393~~	~~137-29-1~~	~~Copper, bis(dimethylcarbamodithioato-S,S')-~~
~~U393~~	~~137-29-1~~	~~Copper dimethyldithiocarbamate~~
U051		Creosote
U052	1319-77-3	Cresol (Cresylic acid)
U053	4170-30-3	Crotonaldehyde
U055	98-82-8	Cumeme (I)
U246	506-68-3	Cyanogen bromide CNBr
~~U386~~	~~1134-23-2~~	~~Cycloate~~
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-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)-
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
~~U366~~	~~533-74-4~~	~~Dazomet~~
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	Dimethylcarbamoyl 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
~~U403~~	~~97-77-8~~	~~Disulfiram~~
U041	106-89-8	Epichlorohydrin
~~U390~~	~~759-94-4~~	~~EPTC~~
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[(methyl-imino)carbonyloxy]]bis-, dimethyl ester
U394	30558-43-1	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester
U359	110-80-5	Ethanol, 2-ethoxy-
U173	1116-54-7	Ethanol, 2,2'-(nitrosoimino)bis-
U395	5952-26-1	Ethanol, 2,2'-oxybis-, dicarbamate
U004	98-86-2	Ethanone, 1-phenyl-
U043	75-01-4	Ethene, chloro-
U042	110-75-8	Ethene, (2-chloroethoxy)-
U078	75-35-4	Ethene, 1,1-dichloro-
U079	156-60-5	Ethene, 1,2-dichloro-, (E)-
U210	127-18-4	Ethene, tetrachloro-
U228	79-01-6	Ethene, trichloro-
U112	141-78-6	Ethyl acetate (I)
U113	140-88-5	Ethyl acrylate (I)
U238	51-79-6	Ethyl carbamate (urethane)
U117	60-29-7	Ethyl ether
U114	P 111-54-6	Ethylenebisdithiocarbamic acid, salts and esters
U067	106-93-4	Ethylene dibromide
U077	107-06-2	Ethylene dichloride
U359	110-80-5	Ethylene glycol monoethyl ether
U115	75-21-8	Ethylene oxide (I,T)
U116	96-45-7	Ethylenethiourea
U076	75-34-3	Ethylidene dichloride
U118	97-63-2	Ethyl methacrylate
U119	62-50-0	Ethyl methanesulfonate
~~U407~~	~~14324-55-1~~	~~Ethyl Ziram~~
~~U396~~	~~14484-64-1~~	~~Ferbam~~
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-nitroso-ureido)-, D-
U206	18883-66-4	D-Glucose, 2-deoxy-2-[[(methylnitrosoamino)-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_2S
U096	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl- (R)
U116	96-45-7	2-Imidazolidinethione
U137	193-39-5	Indeno[1,2,3-cd]pyrene
~~U375~~	~~55406-53-6~~	~~3-Iodo-2-propynyl n-butylcarbamate~~
~~U396~~	~~14484-64-1~~	~~Iron, tris(dimethylcarbamodithioato-S,S')-~~
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
~~U384~~	~~137-42-8~~	~~Metam Sodium~~
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

~~U365~~	~~2212-67-1~~	~~Molinate~~
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-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-
U167	134-32-7	1-Naphthalenamine
U168	91-59-8	2-Naphthalenamine
U026	494-03-1	Naphthaleneamine, N,N'-bis(2-chloroethyl)-
U165	91-20-3	Naphthalene
U047	91-58-7	Naphthalene, 2-chloro-
U166	130-15-4	1,4-Naphthalenedione
U236	72-57-1	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl-[1,1'-biphenyl]-4,4'-diyl)bis(azo)bis[5-amino-4-hydroxy]-, tetrasodium salt
U279	63-25-2	1-Naphthalenol, methylcarbamate
U166	130-15-4	1,4-Naphthoquinone
U167	134-32-7	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
~~U391~~	~~1114-71-2~~	~~Pebulate~~
U183	608-93-5	Pentachlorobenzene
U184	76-01-7	Pentachloroethane
U185	82-68-8	Pentachloronitrobenzene (PCNB)
See F027	87-86-5	Pentachlorophenol
U161	108-10-1	Pentanol, 4-methyl-
U186	504-60-9	1,3-Pentadiene (I)

U187	62-44-2	Phenacetin
U188	108-95-2	Phenol
U048	95-57-8	Phenol, 2-chloro-
U039	59-50-7	Phenol, 4-chloro-3-methyl-
U081	120-83-2	Phenol, 2,4-dichloro-
U082	87-65-0	Phenol, 2,6-dichloro-
U089	56-53-1	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-
U101	105-67-9	Phenol, 2,4-dimethyl-
U052	1319-77-3	Phenol, methyl-
U132	70-30-4	Phenol, 2,2'-methylenebis[3,4,6-trichloro-
U411	114-26-1	Phenol, 2-(1-methylethoxy)-, methylcarbamate
U170	100-02-7	Phenol, 4-nitro-
See F027	87-86-5	Phenol, pentachloro-
See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-
See F027	95-95-4	Phenol, 2,4,5-trichloro-
See F027	88-06-2	Phenol, 2,4,6-trichloro-
U150	148-82-3	L-Phenylalanine, 4-[bis(2-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-
~~U400~~	~~120-54-7~~	~~Piperidine, 1,1'-(tetrathiodicarbonothioyl)-bis-~~
~~U383~~	~~128-03-0~~	~~Potassium dimethyldithiocarbamate~~
~~U378~~	~~51026-28-9~~	~~Potassium n-hydroxymethyl-n-methyldi-thiocarbamate~~
~~U377~~	~~137-41-7~~	~~Potassium n-methyldithiocarbamate~~
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-chloro-ethyl)amino]-
U164	58-04-2	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U180	930-55-2	Pyrrolidine, 1-nitroso-
U200	50-55-5	Reserpine
U201	108-46-3	Resorcinol
U202	P 81-07-2	Saccharin and salts
U203	94-59-7	Safrole
U204	7783-00-8	Selenious acid
U204	7783-00-8	Selenium dioxide
U205	7488-56-4	Selenium sulfide
U205	7488-56-4	Selenium sulfide SeS_2 (R,T)
~~U376~~	~~144-34-3~~	~~Selenium, tetrakis(dimethyldithiocarbamate)~~
U015	115-02-6	L-Serine, diazoacetate (ester)
See F027	93-72-1	Silvex (2,4,5-TP)
~~U379~~	~~136-30-1~~	~~Sodium dibutyldithiocarbamate~~
~~U381~~	~~148-18-5~~	~~Sodium diethyldithiocarbamate~~
~~U382~~	~~128-04-1~~	~~Sodium dimethyldithiocarbamate~~
U206	18883-66-4	Streptozotocin
~~U277~~	~~95-06-7~~	~~Sulfallate~~
U103	77-78-1	Sulfuric acid, dimethyl ester
U189	1314-80-3	Sulfur phosphide (R)
See F027	93-76-5	2,4,5-T
~~U402~~	~~1634-02-2~~	~~Tetrabutylthiuram disulfide~~
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)
~~U401~~	~~97-74-5~~	~~Tetramethylthiuram monosulfide~~
~~U366~~	~~533-74-4~~	~~2H-1,3,5-Thiadiazine-2-thione, tetrahydro-3,5-dimethyl-~~
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)
~~U402~~	~~1634-02-2~~	~~Thioperoxydicarbonic diamide, tetrabutyl~~
~~U403~~	~~97-77-8~~	~~Thioperoxydicarbonic diamide, tetraethyl~~
U244	137-26-8	Thioperoxydicarbonic diamide $[(H_2N)C(S)]_2S_2$, tetramethyl-
U409	23564-05-8	Thiophanate-methyl
U219	62-56-6	Thiourea
U244	137-26-8	Thiram
U220	108-88-3	Toluene
U221	25376-45-8	Toluenediamine
U223	26471-62-5	Toluene diisocyanate (R,T)
U328	95-53-4	o-Toluidine
U353	106-49-0	p-Toluidine
U222	636-21-5	o-Toluidine hydrochloride
U389	2303-17-5	Triallate
U011	61-82-5	1H-1,2,4-Triazol-3-amine
U227	79-00-5	1,1,2-Trichloroethane
U228	79-01-6	Trichloroethylene
U121	75-69-4	Trichloromonofluoromethane
See F027	95-95-4	2,4,5-Trichlorophenol
See F027	88-06-2	2,4,6-Trichlorophenol
U404	121-44-8	Triethylamine
U234	99-35-4	1,3,5-Trinitrobenzene (R,T)
U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-
U235	126-72-7	Tris(2,3-dibromopropyl) phosphate
U236	72-57-1	Trypan blue
U237	66-75-1	Uracil mustard
U176	759-73-9	Urea, N-ethyl-N-nitroso-
U177	684-93-5	Urea, N-methyl-N-nitroso-
~~U385~~	~~1929-77-7~~	~~Vernolate~~
U043	75-01-4	Vinyl chloride
U248	P 81-81-2	Warfarin, and salts, when present at

		concentrations of 0.3% or less
U239	1330-20-7	Xylene (I)
U200	50-55-5	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester, (3beta,16beta,17alpha,18beta,20alpha)-
~~U407~~	~~14324-55-1~~	~~Zinc, bis(diethylcarbamodithioato-S,S')-~~
U249	1314-84-7	Zinc phosphide Zn_3P_2, when present at concentrations of 10% or less

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 721.Appendix G Basis for Listing Hazardous Wastes

EPA hazardous waste No.	Hazardous constituents for which listed
F001	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons.
F002	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichlorethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane.
F003	N.A.
F004	Cresols and cresylic acid, nitrobenzene.
F005	Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, 2-ethoxyethanol, benzene, 2-nitropropane.
F006	Cadmium, hexavalent chromium, nickel, cyanide (complexed).
F007	Cyanide (salts).
F008	Cyanide (salts).
F009	Cyanide (salts).
F010	Cyanide (salts).
F011	Cyanide (salts).
F012	Cyanide (complexed).
F019	Hexavalent chromium, cyanide (complexed).
F020	Tetra- and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; tri- and tetrachlorophenols and their clorophenoxy derivative acids, esters, ethers, amines and other salts.
F021	Penta- and hexachlorodibenzo-p-dioxins; penta- and hexachlorodibenzofurans; pentachlorophenol and its derivatives.
F022	Tetra-, penta- and hexachlorodibenzo-p-dioxins; tetra-, penta- and hexachlorodibenzofurans.

F023 Tetra- and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; tri- and tetra- chlorophenols and their chlorophenoxy derivative acids, esters, ethers, amines and other salts.

F024 Chloromethane, dichloromethane, trichloromethane, carbon tetrachloride, chloroethylene, 1,1-dichloroethane, 1,2-dichloroethane, trans-1,2-dichloroethylene, 1,1-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, tetrachloroethylene, pentachloroethane, hexachloroethane, allyl chloride (3-chloropropene), dichloropropane, dichloropropene, 2-chloro-1,3-butadiene, hexachloro-1,3-butadiene, hexachlorochylopentadiene, hexachlorocylohexane, benzene, chlorobenzene, dichlorobenzenes, 1,2,4-trichlorobenzene, tetrachlorobenzenes, pentachlorobenzene, hexachlorobenzene, toluene, naphthalene.

F025 Chloromethane, diclоromethane, trichloromethane; carbon tetrachloride; chloroethylene; 1,1-dichloroethane; 1,2-dichloroethane; trans-1,2-dichloroethylene; 1,1-dichloroethylene; 1,1,1-trichloroethane; 1,1,2-trichloroethane; trichloroethylene; 1,1,1,2-tetrachloroethane; 1,1,2,2-tetrachloroethane; tetrachloroethylene; pentachloroethane; hexachloroethane; allyl chloride (3-chloropropene); dichloropropane; dichloropropene; 2-chloro-1,3-butadiene; hexachloro-1,3-butadiene; hexachlorocyclopentadiene; benzene; chlorobenzene; dichlorobenzene; 1,2,4-trichlorobenzene; tetrachlorobenzene; pentachlorobenzene; hexachlorobenzene; toluene; naphthalene.

F026 Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans.

F027 Tetra-, penta, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.

F028 Tetra-, penta-, and hexachlorodibenzo-p-~~dixons~~dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.

F032 Benz(a)anthracene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, pentachlorophenol, arsenic, chromium, tetra-, penta-, hexa-, heptachlorordibenzo-p-dioxins, tetra-, penta-, hexa-, heptachlorodibenzofurans.

F034 Benz(a)anthracene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, naphthalene, arsenic chromium.

F035 Arsenic, chromium and lead.

F037 Benzene, benzo(a)pyrene, chrysene, lead, chromium.

F038 Benzene, benzo(a)pyrene, chrysene, lead, chromium.

F039 All constituents for which treatment standards are specified for multi-source leachate (wastewaters and non-wastewaters) under 35 Ill. Adm. Code 728.Table B (Constituent Concentrations in Waste).

K001 Pentachlorophenol, phenol, 2-chlorophenol, p-chloro-m-cresol, 2,4-dimethylphenol, 2,4- dinitrophenol, trichlorophenols, tetrachlorophenols, 2,4-dinitrophenol, cresosote, chrysene, naphthalene, fluoranthene,

benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, benz(a) anthracene, dibenz(a)anthracene, acenaphthalene.

K002 Hexavalent chromium, lead.
K003 Hexavalent chromium, lead.
K004 Hexavalent chromium.
K005 Hexavalent chromium, lead.
K006 Hexavalent chromium.
K007 Cyanide (complexed), hexavalent chromium.
K008 Hexavalent chromium.
K009 Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid.
K010 Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid, chloroacetaldehyde.
K011 Acrylonitrile, acetonitrile, hydrocyanic acid.
K013 Hydrocyanic acid, acrylonitrile, acetonitrile.
K014 Acetonitrile, acrylamide.
K015 Benzyl chloride, chlorobenzene, toluene, benzotrichloride.
K016 Hexachlorobenzene, hexachlorobutadiene, carbon tetrachloride, hexachloroethane, perchloroethylene.
K017 Epichlorohydrin, chloroethers [bis(chloromethyl) ether and bis- (2-chloroethyl) ethers], trichloropropane, dichloropropanols.
K018 1,2-dichloroethane, trichloroethylene, hexachlorobutadiene, hexachlorobenzene.
K019 Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride.
K020 Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloro-ethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride.
K021 Antimony, carbon tetrachloride, chloroform.
K022 Phenol, tars (polycyclic aromatic hydrocarbons).
K023 Phthalic anhydride, maleic anhydride.
K024 Phthalic anhydride, 1,4-naphthoguinone.
K025 Meta-dinitrobenzene, 2,4-dinitrotoluene.
K026 Paraldehyde, pyridines, 2-picoline.
K027 Toluene diisocyanate, toluene-2,4-diamine.
K028 1,1,1-trichloroethane, vinyl chloride.
K029 1,2-dichloroethane, 1,1,1-trichloroethane, vinyl chloride, vinylidene chloride, chloroform.
K030 Hexachlorobenzene, hexachlorobutadiene, hexachloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, ethylene dichloride.
K031 Arsenic.
K032 Hexachlorocyclopentadiene.
K033 Hexachlorocyclopentadiene.

K034 Hexachlorocyclopentadiene.
K035 Creosote, chrysene, naphthalene, fluoranthene, benzo(b) fluoranthene, benzo(a)-pyrene, indeno(1,2,3-cd) pyrene, benzo(a)anthracene, dibenzo(a)anthracene, acenaphthalene.
K036 Toluene, phosphorodithioic and phosphorothioic acid esters.
K037 Toluene, phosphorodithioic and phosphorothioic acid esters.
K038 Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters.
K039 Phosphorodithioic and phosphorothioic acid esters.
K040 Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters.
K041 Toxaphene.
K042 Hexachlorobenzene, ortho-dichlorobenzene.
K043 2,4-dichlorophenol, 2,6-dichlorophenol, 2,4,6-trichlorophenol.
K044 N.A.
K045 N.A.
K046 Lead.
K047 N.A.
K048 Hexavalent chromium, lead.
K049 Hexavalent chromium, lead.
K050 Hexavalent chromium.
K051 Hexavalent chromium, lead.
K052 Lead.
K060 Cyanide, naphthalene, phenolic compounds, arsenic.
K061 Hexavalent chromium, lead, cadmium.
K062 Hexavalent chromium, lead.
K064 Lead, cadmium.
K065 Lead, cadmium.
K066 Lead, cadmium.
K069 Hexavalent chromium, lead, cadmium.
K071 Mercury.
K073 Chloroform, carbon tetrachloride, hexachloroethane, trichloroethane, tetrachloroethylene, dichloroethylene, 1,1,2,2-tetrachloroethane.
K083 Aniline, diphenylamine, nitrobenzene, phenylenediamine.
K084 Arsenic.
K085 Benzene, dichlorobenzenes, trichlorobenzenes, tetrachlorobenzenes, pentachlorobenzene, hexachlorobenzene, benzyl chloride.
K086 Lead, hexavalent chromium.
K087 Phenol, naphthalene.
K088 Cyanide (complexes).
K090 Chromium.
K091 Chromium.
K093 Phthalic anhydride, maleic anhydride.
K094 Phthalic anhydride.
K095 1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane.
K096 1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane.
K097 Chlordane, heptachlor.

K098 Toxaphene.
K099 2,4-dichlorophenol, 2,4,6-trichlorophenol.
K100 Hexavalent chromium, lead, cadmium.
K101 Arsenic.
K102 Arsenic.
K103 Aniline, nitrobenzene, phenylenediamine.
K104 Aniline, benzene, diphenylamine, nitrobenzene, phynylenediamine.
K105 Benzene, monochlorobenzene, dichlorobenzenes, 2,4,6-trichlorophenol.
K106 Mercury.
K111 2,4-Dinitrotoluene.
K112 2,4-Toluenediamine, o-toluidine, p-toluidine, aniline.
K113 2,4-Toluenediamine, o-toluidine, p-toluidine, aniline.
K114 2,4-Toluenediamine, o-toluidine, p-toluidine.
K115 2,4-Toluenediamine.
K116 Carbon tetrachloride, tetrachloroethylene, chloroform, phosgene.
K117 Ethylene dibromide.
K118 Ethylene dibromide.
K123 Ethylene thiourea.
K124 Ethylene thiourea.
K125 Ethylene thiourea.
K126 Ethylene thiourea.
K131 Dimethyl sulfate, methyl bromide.
K132 Methyl bromide.
K136 Ethylene dibromide.
K141 Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K142 Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K143 Benzene, benz(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene.
K144 Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene.
K145 Benzene, benz(a)anthracene, benzo(a)pyrene, dibenz(a,h)anthracene, naphthalene.
K147 Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K148 Benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K149 Benzotrichloride, benzyl chloride, chloroform, chloromethane, chlorobenzene, 1,4-dichlorobenzene, hexachlorobenzene, pentachlorobenzene, 1,2,4,5-tetrachlorobenzene, toluene.
K150 Carbon tetrachloride, chloroform, chloromethane, 1,4-dichlorobenzene, hexachlorobenzene, pentachlorobenzene, 1,2,4,5-tetrachlorobenzene, 1,1,2,2-tetrachloroethane, tetrachloroethylene, 1,2,4-trichlorobenzene.
K151 Benzene, carbon tetrachloride, chloroform, hexachlorobenzene, pentachlorobenzene, toluene, 1,2,4,5-tetrachlorobenzene, tetrachloroethylene.

K156 Benomyl, carbaryl, carbendazim, carbofuran, carbosulfan, formaldehyde, methylene chloride, triethylamine.
K157 Carbon tetrachloride, formaldehyde, methyl chloride, methylene chloride, pyridine, triethylamine.
K158 Benomyl, carbendazim, carbofuran, carbosulfan, chloroform, methylene chloride.
K159 Benzene, butylate, EPTC, molinate, pebulate, vernolate.
~~K160 Benzene, butylate, EPTC, molinate, pebulate, vernolate.~~
K161 Antimony, arsenic, metam-sodium, ziram.

N.A.--Waste is hazardous because it fails the test for the characteristic of ignitability, corrosivity or reactivity.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 721.Appendix H Hazardous Constituents

Common Name	Chemical Abstracts Name	Chemical Abstracts Number	Hazardous Waste Number
A2213	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester	30558-43-1	U394
Acetonitrile	Same	75-05-8	U003
Acetophenone	Ethanone, 1-phenyl-	98-86-2	U004
2-Acetylaminofluorene	Acetamide, N-9H-fluoren-2-yl-	53-96-3	UOO5
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-Propenamide	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- (methyl-sulfonyl)-, O-[(methylamino)-carbonyl]oxime	1646-88-4	P203
Aldrin	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-	309-00-2	P004

	1,4,4a,5,8,8a-hexahydro-, (1-alpha,4-alpha,4a-beta,5-alpha,8-alpha,8a-beta)-		
Allyl alcohol	2-Propen-1-ol	107-18-6	P005
Allyl chloride	1-Propene, 3-chloro-	107-18-6	
Aluminum phosphide	Same	20859-73-8	P006
4-Aminobiphenyl	[1,1'-Biphenyl]-4-amine	92-67-1	
5-(Aminomethyl)-3-isoxazolol	3(2H)-Isoxazolone, 5-(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	U119
Aniline	Benzenamine	62-53-3	U012
Antimony	Same	7440-36-0	
Antimony compounds, N.O.S. (not otherwise specified)			
Aramite	Sulfurous acid, 2-chloroethyl-, 2-[4-(1,1-dimethylethyl)-phenoxy]-1-methylethyl ester	140-57-8	
Arsenic	Arsenic	7440-38-2	
Arsenic compounds, N.O.S.			
Arsenic acid	Arsenic acid H_3AsO_4	7778-39-4	P010
Arsenic pentoxide	Arsenic oxide As_2O_5	1303-28-2	PO11
Arsenic trioxide	Arsenic oxide As_2O_3	1327-53-3	P012
Auramine	Benzenamine, 4,4'-carbon-imidoylbis[N, N-dimethyl-	492-80-8	U014
Azaserine	L-Serine, diazoacetate (ester)	115-02-6	U015
Barban	Carbamic acid, (3-chloro-phenyl)-, 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- [(butyl-amino)carbonyl]-1H-benz-imidazol-2-yl]-, methyl ester	17804-35-2	U271
Benz[c]acridine	Same	225-51-4	U016
Benz[a]anthracene	Same	56-55-3	U018
Benzal chloride	Benzene, (dichloromethyl)-	98-87-3	U017
Benzene	Same	71-43-2	U018
Benzenearsonic acid	Arsonic acid, phenyl-	98-05-5	

Benzidine	[1,1'-Biphenyl]-4,4'-diamine	92-87-5	U021
Benzo[b]fluoranthene	Benz[e]acephenanthrylene	205-99-2	
Benzo[j]fluoranthene	Same	205-82-3	
Benzo(k)fluoranthene	Same	207-08-9	
Benzo[a]pyrene	Same	50-32-8	U022
p-Benzoquinone	2,5-Cyclohexadiene-1,4-dione	106-51-4	U197
Benzotrichloride	Benzene, (trichloromethyl)-	98-07-7	U023
Benzyl chloride	Benzene, (chloromethyl)-	100-44-7	P028
Beryllium powder	Same	7440-41-7	P015
Beryllium compounds, N.O.S.			
Bis(pentamethylene)thiuram tetrasulfide	Piperidine, 1,1'-(tetrathio-dicarbonothioyl)-bis-	120-54-7	~~U400~~
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	~~U392~~
Butyl benzyl phthalate	1,2-Benzenedicarboxylic acid, butyl phenylmethyl ester	85-68-7	
Cacodylic acid	Arsenic acid, dimethyl-	75-60-5	U136
Cadmium	Same	7440-43-9	
Cadmium compounds, N.O.S.			
Calcium chromate	Chromic acid H_2CrO_4, calcium salt	13765-19-0	U032
Calcium cyanide	Calcium cyanide $Ca(CN)_2$	592-01-8	P021
Carbaryl	1-Naphthalenol, methyl-carbamate	63-25-2	U279
Carbendazim	Carbamic acid, 1H-benz-imidazol-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, [(dibutyl-amino)thio] methyl-, 2,3-dihydro-2,2-dimethyl-7-benzo-furanyl ester	55285-14-8	P189
Carbon disulfide	Same	75-15-0	P022
Carbon oxyfluoride	Carbonic difuoride	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	~~U393~~
Creosote	Same		U051
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, cyclo-hexylethyl-, S-ethyl ester	1134-23-2	~~U386~~
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-chloro-ethyl)tetrahydro-, 2-oxide	50-18-0	U058
2,4-D	Acetic acid, (2,4-dichloro-phenoxy)-	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-hexo-pyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-l-methoxy-, 8S-cis)-	20830-81-3	U059
Dazomet	2H-1,3,5-thiadiazine-2-thione, tetrahydro-3,5-dimethyl	533-74-4	~~U366~~
DDD	Benzene, 1,1'-(2,2-dichloro-ethylidene)bis[4-chloro-	72-54-8	U060
DDE	Benzene, 1,1'-(dichloroethenyl-idene)bis[4-chloro-	72-55-9	
DDT	Benzene, 1,1'-(2,2,2-trichloro-ethylidene)bis[4-chloro-	50-29-3	U061
Diallate	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-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-hexa-chloro-1a,2,2a,3,6, 6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6 beta,6aalpha,7beta,7aalpha)-	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 dithio-phosphate	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
Dimetilan	Carbamic acid, dimethyl-, 1-[(dimethylamino) carbonyl]-5-methyl-1H-pyrazol-3-yl ester	644-64-4	P191
3,3'-Dimethoxybenzidine	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-	119-90-4	U091
p-Dimethylaminoazobenzene	Benzenamine, N,N-dimethyl-4-(phenylazo)-	60-11-7	U093
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-Dimethylphen-ethylamine	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
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	~~U403~~
Disulfoton	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester	298-04-4	P039

Dithiobiuret	Thioimidodicarbonic diamide $[(H_2N)C(S)]_2NH$	541-53-7	P049
Endosulfan	6, 9-Methano-2,4,3-benzo-dioxathiepen,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-hexa-chloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1a alpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)-,	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	~~U390~~
Ethyl carbamate (urethane)	Carbamic acid, ethyl ester	51-79-6	U238
Ethyl cyanide	Propanenitrile	107-12-0	P101
Ethylenebisdithiocarbamic acid	Carbamodithioic acid, 1,2-ethanediylbis-	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
Ethylidine 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(diethylcarbamo-dithioato-S,S')-	14324-55-1	U407
Famphur	Phosphorothioc acid, O-[4-[(dimethylamino)sulfonyl]-phenyl] O,O-dimethyl ester	52-85-7	P097
Ferbam	Iron, tris(dimethylcarbamo-dithioato-S,S')-,	14484-64-1	~~U396~~
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-[[(methyl-amino)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-tetra-hydro-	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-, (1aalpha,1bbeta,2alpha,5alpha, 5abeta,6beta,6aalpha)-	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'-methylene-bis[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 H2S	7783-06-4	U135
Indeno[1,2,3-cd]pyrene	Same	193-39-5	U137
3-Iodo-2-propynyl-n-butylcarbamate	Carbamic acid, butyl-, 3-iodo-2-propynyl ester	55406-53-6	~~U375~~
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-, (1alpha,4alpha,4abeta,5beta,8beta,8abeta)-,	465-73-6	P060
Isolan	Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H-pyrazol-5-yl ester	119-38-0	P192
Isosafrole	1,3-Benzodioxole, 5-(1-propenyl)-	120-58-1	U141
Kepone	1,3,4-Metheno-2H-cyclobuta-[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-,	143-50-0	U142
Lasiocarpine	2-Butenoic acid, 2-methyl-, 7-[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-l-yl ester, [1S-[1-alpha(Z),7(2S*,3R*),7aalpha]]-	303-34-1	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)tetrahydroxytri-	1335-32-6	U146
Lindane	Cyclohexane, 1,2,3,4,5,6-hexachloro-, 1alpha,2alpha,3beta,4alpha,5alpha,6beta)-	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 dimethyldithiocarbamate	Manganese, bis(dimethyl-	15339-36-3	P196

	carbamodithioato-S,S')-,		
Melphalan	L-Phenylalanine, 4-[bis(2-chloroethyl)amino]-	148-82-3	U150
Mercury	Same	7439-97-6	U151
Mercury compounds, N.O.S.			
Mercury fulminate	Fulminic acid, mercury (2 +) salt	628-86-4	P065
Metam Sodium	Carbamodithioic acid, methyl-, monosodium salt	137-42-8	~~U384~~
Methacrylonitrile	2-Propenenitrile, 2-methyl-	126-98-7	U152
Methapyrilene	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-	91-80-5	U155
Methiocarb	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate	2032-65-7	P199
Metholmyl	Ethanimidothioic acid, N-[[(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-chloroaniline)	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-Methyllactonitrile	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-methylphenyl ester	1129-41-5	P190
Mexacarbate	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)	315-18-4	P128
Mitomycin C	Azirino[2', 3':3, 4]pyrrolo[1, 2-a]indole-4, 7-dione, 6-amino-8-[[(aminocarbonyl)oxy]-methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1a-S-(1aalpha,8beta,8aalpha,8balpha)]-,	50-07-7	U010
Molinate	1H-Azepine-1-carbothioic acid, hexahydro-, S-ethyl ester	2212-67-1	~~U365~~
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 $Ni(CO)_4$, (T-4)-	13463-39-3	P073
Nickel cyanide	Nickel cyanide $Ni(CN)_2$	557-19-7	P074
Nicotine	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-	54-11-5	P075
Nicotine salts			P075
Nitric oxide	Nitrogen oxide NO	10102-43-9	P076
p-Nitroaniline	Benzenamine, 4-nitro-	100-01-6	P077
Nitrobenzene	Benzene, nitro-	98-95-3	P078
Nitrogen dioxide	Nitrogen oxide NO_2	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-Nitrosonornicotine	Pyridine, 3-(1-nitroso-2-pyrrolidinyl)-, (S)-	16543-55-8	
N-Nitrosopiperidine	Piperidine, 1-nitroso-	100-75-4	U179
N-Nitrosopyrrolidine	Pyrrolidine, 1-nitroso-	930-55-2	U180
N-Nitrososarcosine	Glycine, N-methyl-N-nitroso-	13256-22-9	
5-Nitro-o-toluidine	Benzenamine, 2-methyl-5-nitro-	99-55-8	U181
Octamethylpyrophosphoramide	Diphosphoramide, octamethyl-	152-16-9	P085
Osmium tetroxide	Osmium oxide OsO_4, (T-4)	20816-12-0	P087
Oxamyl	Ethanimidothioc acid, 2-(dimethylamino)-N-[[(methyl-amino)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	~~U391~~
Pentachlorobenzene	Benzene, pentachloro-	608-93-5	U183
Pentachlorodibenzo-p-dioxins			
Pentachlorodibenzofurans			
Pentachloroethane	Ethane, pentachloro-	76-01-7	U184
Pentachloronitrobenzene (PCNB)	Benzene, pentachloronitro-	82-68-8	U185
Pentachlorophenol	Phenol, pentachloro-	87-86-5	See F027

Phenacetin	Acetamide, N-(4-ethoxyphenyl)-	62-44-2	U187
Phenol	Same	108-95-2	U188
Phenylenediamine	Benzenediamine	25265-76-3	
Phenylmercury acetate	Mercury, (acetato-O)phenyl-	62-38-4	P092
Phenylthiourea	Thiourea, phenyl-	103-85-5	P093
Phosgene	Carbonic dichloride	75-44-5	P095
Phosphine	Same	7803-51-2	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	~~U383~~
Potassium n-hydroxymethyl-n-methyl-dithiocarbamate	Carbamodithioc acid, (hydroxymethyl)methyl-, monopotassium salt	51026-28-9	~~U378~~
Potassium n-methyldithiocarbamate	Carbamodithioc acid, methyl-monopotassium salt	137-41-7	~~U377~~
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)-,	114-26-1	U411

	methylcarbamate		
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, (3beta,16beta,17alpha,18beta,20alpha)-,	50-55-5	U200
Resorcinol	1,3-Benzenediol	108-46-3	U201
Saccharin	1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide	81-07-2	U202
Saccharin salts			U202
Safrole	1,3-Benzodioxole, 5-(2-propenyl)-	94-59-7	U203
Selenium	Same	7782-49-2	
Selenium compounds, N.O.S.			
Selenium dioxide	Selenious acid	7783-00-8	U204
Selenium sulfide	Selenium sulfide SeS_2	7488-56-4	U205
Selenium, tetrakis(dimethyl-dithiocarbamate	Carbamodithioic acid, dimethyl-, tetraanhydrosulfide with orthothioselenious acid	144-34-3	~~U376~~
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	~~U379~~
Sodium diethyldithiocarbamate	Carbamodithioic acid, diethyl-, sodium salt	148-18-5	~~U381~~
Sodium dimethyldithiocarbamate	Carbamodithioic acid, dimethyl-, sodium salt	128-04-1	~~U382~~
Sodium pentachlorophenate	Pentachlorophenol, sodium salt	131522	None
Streptozotocin	D-Glucose, 2-deoxy-2-[[methylnitrosoamino)ca-	18883-66-4	U206

	rbonyl]amino]-		
Strychnine	Strychnidin-10-one	57-24-9	P108
Strychnine salts			P108
Sulfallate	Carbamodithioic acid, diethyl-, 2-chloro-2-propenyl ester	95-06-7	~~U277~~
TCDD	Dibenzo[b,e][1,4]dioxin, 2,3,7,8-tetrachloro-	1746-01-6	
Tetrabutylthiuram disulfide	Thioperoxydicarbonic diamide, tetrabutyl	1634-02-2	~~U402~~
Tetra~~butyl~~methylthiuram monosulfide	Bis(dimethylthiocarbamoyl) sulfide	97-74-5	~~U401~~
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)-	59669-26-0	U410

	carbonyloxy]]-bis-, dimethyl ester		
Thiofanox	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[(methylamino)carbonyl]oxime	39196-18-4	P045
Thiophanate-methyl	Carbamic acid, [1,2-phyenylenebis(iminocarbono-thioyl)]-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 $[(H_2N)C(S)]_2S_2$, tetramethyl-	137-26-8	U244
Tirpate	1,3-Dithiolane-2-carbox-aldehyde, 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-diisocyanato-methyl-	26471-62-5	U223
o-Toluidine	Benzenamine, 2-methyl-	95-53-4	U328
o-Toluidine hydrochloride	Benzeneamine, 2-methyl-, hydrochloride	636-21-5	U222
p-Toluidine	Benzenamine, 4-methyl-	106-49-0	U353
Toxaphene	Same	8001-35-2	P123
Triallate	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-tri-chloro-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-trichloro-phenoxy)-	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(l-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_2O_5	1314-62-1	P120
Vernolate	Carbamothioc acid, dipropyl-, S-propyl ester	1929-77-7	~~U385~~
Vinyl chloride	Ethene, chloro-	75-01-4	U043
Warfarin	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, when present at concentrations less than 0.3%	81-81-2	U248
Warfarin	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, when present at concentrations greater than 0.3%	81-81-2	P001
Warfarin salts, when present at concentrations less than 0.3%			U248
Warfarin salts, when present at concentrations greater than 0.3%			P001
Zinc cyanide	Zinc cyanide $Zn(CN)_2$	557-21-1	P121
Zinc phosphide	Zinc phosphide P_2Zn_3, when present at concentrations greater than 10%	1314-84-7	P122
Zinc phosphide	Zinc phosphide P_2Zn_3, when present at concentrations of 10% or less	1314-84-7	U249
Ziram	Zinc, bis(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 not specifically listed by name in this Section.

(Source: Amended at 21 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

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722.111 Hazardous Waste Determination
722.112 USEPA Identification Numbers

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SUBPART G: FARMERS

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

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

SOURCE: Adopted in R81-22, 43 PCB 427, at 5 Ill. Reg. 9781, effective May 17, 1982; amended and codified in R81-22, 45 PCB 317, at 6 Ill. Reg. 4828, effective May 17, 1982; amended in R82-18, 51 PCB 31, at 7 Ill. Reg. 2518, effective February 22, 1983; amended in R84-9 at 9 Ill. Reg. 11950, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 1131, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 14112, effective August 12, 1986; amended in R86-19 at 10 Ill. Reg. 20709, effective December 2, 1986; amended in R86-46 at 11 Ill. Reg. 13555, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19392, effective November 12, 1987; amended in R87-39 at 12 Ill. Reg. 13129, effective July 29, 1988; amended in

R88-16 at 13 Ill. Reg. 452, effective December 27, 1988; amended in R89-1 at 13 Ill. Reg. 18523, effective November 13, 1989; amended in R90-10 at 14 Ill. Reg. 16653, effective September 25, 1990; amended in R90-11 at 15 Ill. Reg. 9644, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14562, effective October 1, 1991; amended in R91-13 at 16 Ill. Reg. 9833, effective June 9, 1992; amended in R92-1 at 16 Ill. Reg. 17696, effective November 6, 1992; amended in R93-4 at 17 Ill. Reg. 20822, effective November 22, 1993; amended in R95-6 at 19 Ill. Reg. 9935, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 11236, effective August 1, 1996; amended in R96-10/R97-3/R97-5 at 21 Ill. Reg. _____, effective _____.

SUBPART A: GENERAL

Section 722.110 Purpose, Scope and Applicability

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

b) 35 Ill. Adm. Code 721.105(c) and (d) must be used to determine the applicability of provisions of this Part that are dependent on calculations of the quantity of hazardous waste generated per month.

c) A generator ~~who~~that treats, stores or disposes of hazardous waste on-site must only comply with the following Sections of this Part with respect to that waste: Section 722.111 for determining whether or not the generator has a hazardous waste, Section 722.112 for obtaining an USEPA identification number, Section 722.140(c) and (d) for recordkeeping, Section 722.143 for additional reporting and, if applicable, Section 722.170 for farmers.

d) Any person ~~who~~that exports or imports hazardous waste ~~into the United States~~ subject to the hazardous waste manifesting requirements of this Part or subject to the universal waste management standards of 35 Ill. Adm. Code 733 to or from countries listed in Section 722.158(a)(1) for recovery must comply with ~~the standards applicable to generators established in this Part~~Subpart H of this Part.

e) A farmer ~~who~~that generates waste pesticides which are hazardous waste and ~~who~~that complies with all of the requirements of Section 722.151 is not required to comply with other standards in this Part, or 35 Ill. Adm. Code 702, 703, 724 725 or 728 with respect to such pesticides.

f) A person ~~who~~that generates a hazardous waste as defined by 35 Ill. Adm. Code 721 is subject to the compliance requirements and penalties

prescribed in Title VIII and XII of the Environmental Protection Act if he does not comply with the requirements of this Part.

g) An owner or operator ~~who~~that initiates a shipment of hazardous waste from a treatment, storage or disposal facility must comply with the generator standards established in this Part.

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

(Source: Amended at 21 Ill. Reg. _____, effective _____)

SUBPART C: PRE-TRANSPORT REQUIREMENTS

Section 722.134 Accumulation Time

a) Except as provided in subsection~~s~~ (d), (e), or (f) ~~below~~of this Section, a generator is exempt from all the requirements in 35 Ill. Adm. Code 725.Subparts G and H, except for 35 Ill. Adm. Code 725.211 and 725.214, and may accumulate hazardous waste on-site for 90 days or less without a permit or without having interim status, provided that:

1) The waste is placed:

A) In containers and the generator complies with 35 Ill. Adm. Code 725.Subpart~~s~~ I~~, AA, BB, and CC~~; or

B) In tanks and the generator complies with 35 Ill. Adm. Code 725.Subpart~~s~~ J, ~~(~~except 35 Ill. Adm. Code 725.297(c) and 725.300~~), AA, BB, and CC~~; or

C) On drip pads and the generator complies with 35 Ill. Adm. Code 725.Subpart W and maintains the following records at the facility:

i) A description of the procedures that will be followed to ensure that all wastes are removed

from the drip pad and associated collection system at least once every 90 days, and

ii) Documentation of each waste removal, including the quantity of waste removed from the drip pad and the sump or collection system and the date and time of removal; or

D) In containment buildings and the generator complies with 35 Ill. Adm. Code 725.Subpart DD (has placed its Professional Engineer (PE) certification that the building complies with the design standards specified in 35 Ill. Adm. Code 725.1101 in the facility's operating record prior to the date of initial operation of the unit). The owner or operator shall maintain the following records at the facility:

i) A written description of procedures to ensure that each waste volume remains in the unit for no more than 90 days, a written description of the waste generation and management practices for the facility showing that they are consistent with respecting the 90 day limit, and documentation that the procedures are complied with; or

ii) Documentation that the unit is emptied at least once every 90 days~~.~~;

BOARD NOTE: The "in addition" hanging subsection that appears in the Federal rules after 40 CFR 262.34(a)(1)(iv)(B) is in the introduction to subsection (a) ~~above~~of this Section.

2) The date upon which each period of accumulation begins is clearly marked and visible for inspection on each container;

3) While being accumulated on-site, each container and tank is labeled or marked clearly with the words "Hazardous Waste"~~,~~; and

4) The generator complies with the requirements for treatment, storage, and disposal facility owners or operators in 35 Ill. Adm. Code 725.Subparts C and D and with 35 Ill. Adm. Code 725.116 and 728.107(a)(4).

b) A generator that accumulates hazardous waste for more than 90 days is an operator of a storage facility and is subject to the requirements of 35 Ill. Adm. Code 724 and 725 and the permit requirements of 35 Ill. Adm. Code 702, 703 and 705 unless the generator has been granted an extension of the 90-day period. If hazardous wastes must remain on-site for longer than 90 days due to unforeseen, temporary, and uncontrollable circumstances, the generator may seek an extension of up to 30 days by means of a variance or provisional variance, pursuant to Section 37 of the Environmental Protection Act and 35 Ill. Adm. Code 180 (Agency procedural regulations).

c) Accumulation near the point of generation.

1) A generator may accumulate as much as 55 gallons of hazardous waste or one quart of acutely hazardous waste listed in 35 Ill. Adm. Code 721.133(e) in containers at or near any point of generation where wastes initially accumulate that is under the control of the operator of the process generating the waste without a permit or interim status and without complying with subsection (a) ~~above~~of this Section, provided the generator:

A) Complies with 35 Ill. Adm. Code 725.271, 725.272 and 725.273(a), and

B) Marks the generator's containers either with the words "Hazardous Waste" or with other words that identify the contents of the containers.

2) A generator that accumulates either hazardous waste or acutely hazardous waste listed in 35 Ill. Adm. Code 721.133(e) in excess of the amounts listed in subsection (c)(1) ~~above~~of this Section at or near any point of generation must, with respect to that amount of excess waste, comply within three days with subsection (a) ~~above~~of this Section or other applicable provisions of this Chapter. During the three day period the generator must continue to comply with subsection (c)(1) ~~above~~of this Section. The generator must mark the container holding the excess accumulation of hazardous waste with the date the excess amount began accumulating.

d) A generator that generates greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month may accumulate hazardous waste on-site for 180 days or less without a permit or without having interim status provided that:

1) The quantity of waste accumulated on-site never exceeds 6000 kilograms;

2) The generator complies with the requirements of 35 Ill. Adm. Code 725.Subpart I (except 35 Ill. Adm. Code 725.276 and 725.278);

3) The generator complies with the requirements of 35 Ill. Adm. Code 725.301;

4) The generator complies with the requirements of subsections (a)(2) and (c)(3) ~~above~~of this Section, 35 Ill. Adm. Code 725.Subpart C, and 35 Ill. Adm. Code 728.107(a)(4); and

5) The generator complies 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)(5)(D) ~~below~~of this Section. The employee is the emergency coordinator.

B) The generator shall post the following information next to the telephone:

i) The name and telephone number of the emergency coordinator;

ii) Location of fire extinguishers and spill control material and, if present, fire alarm; and

iii) The telephone number of the fire department, unless the facility has a direct alarm.

C) The generator shall 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 designee shall respond to any emergencies that arise. The applicable responses are as follows:

i) In the event of a fire, call the fire department or attempt to extinguish it using a fire extinguisher;

ii) 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;

iii) In the event of a fire, explosion, or other release that could threaten human health outside the facility, or when the generator has knowledge that a spill has reached surface water, the generator shall immediately notify the National Response Center (using its 24-hour toll free number 800-424-8802). The report must include the following information: the name, address, and U~~.~~S~~.~~ EPA identification number (~~35 Ill. Adm. Code~~Section 722.112 of this Part) of the generator; the date, time, and type of incident (e.g., spill or fire); the quantity and type of hazardous waste involved in the incident; the extent of injuries, if any; and the estimated quantity and disposition of recoverable materials, if any.

e) A generator that generates greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month and that must transport the waste or offer the waste for transportation over a distance of 200 miles or more for off-site treatment, storage, or disposal may accumulate hazardous waste on-site for 270 days or less without a permit or without having interim status, provided that the generator complies with the requirements of subsection (d) ~~above~~of this Section.

f) A generator that generates greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month and that accumulates hazardous waste in quantities exceeding 6000 kg or accumulates hazardous waste for more than 180 days (or for more than 270 days if the generator must transport the waste or offer the waste for transportation over a distance of 200 miles or more) is an operator of a storage facility and is subject to the requirements of 35 Ill. Adm. Code 724 and 725 and the permit requirements of 35 Ill. Adm. Code 703 unless the generator has been granted an extension to the 180-day (or 270-day if applicable) period. If hazardous wastes must remain on-site for longer than 180 days (or 270 days if applicable) due to unforeseen, temporary, and uncontrollable circumstances, the generator may seek an

extension of up to 30 days by means of variance or provisional variance pursuant to Section 37 of the Environmental Protection Act.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

SUBPART E: EXPORTS OF HAZARDOUS WASTE

Section 722.153 Notification of Intent to Export

a) The Board incorporates by reference 40 CFR 262.53 (19~~91~~96)~~, as amended at 56 Fed. Reg. 43705, September 4, 1991~~. This Part incorporates no future editions or amendments.

b) A primary exporter of hazardous waste shall notify USEPA in accordance with 40 CFR 262.53 (1996).

c) The primary exporter shall send the Agency a copy of ~~the~~each notice sent to USEPA pursuant to subsection (b) ~~above~~of this Section.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 722.156 Annual Reports

a) The Board incorporates by reference 40 CFR 262.56 (19~~91~~96)~~, as amended at 56 Fed. Reg. 43705, September 4, 1991~~. This Part incorporates no future editions or amendments.

b) Primary exporters of hazardous waste shall file with USEPA, no later than March 1 of each year, a report as specified in 40 CFR 262.56 (1996).

c) The primary exporter shall send the Agency a copy of ~~the~~each report sent to USEPA.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 722.158 International Agreements

a) Any person that exports or imports hazardous waste subject to either the manifest requirements of this Part or the universal waste management standards of 35 Ill. Adm. Code 733 which is shipped to or from designated member countries of the Organization for Economic Cooperation and Development (OECD), as defined in subsection (a)(1) of this Section, for purposes of recovery is subject to the requirements of

722.Subpart H. The requirements of Subparts E and F of this Part do not apply where 722.Subpart H applies.

1) For the purposes of this Subpart, the designated OECD countries are Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

2) Only for the purposes of transit under this Subpart, Canada and Mexico are considered OECD member countries.

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

(Source: Added at 21 Ill. Reg. _____, effective _____)

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

Section 722.180 Applicability

a) The requirements of this Subpart apply to imports and exports of wastes that are considered hazardous under U.S. national procedures and which are destined for recovery operations in any of the countries listed in Section 722.158(a)(1). A waste is considered hazardous under U.S. national procedures if it meets the definition of hazardous waste in 35 Ill. Adm. Code 721.103 and it is subject to either the manifesting requirements in Subpart B of this Part, to the universal waste management standards of 35 Ill. Adm. Code 733.

b) Any person (notifier, consignee, or recovery facility operator) that mixes two or more wastes (including hazardous and non-hazardous wastes) or otherwise subjects two or more wastes (including hazardous and non-hazardous wastes) to physical or chemical transformation operations, and thereby creates a new hazardous waste, becomes a generator and assumes all subsequent generator duties under this Subchapter and any notifier duties under this Subpart, as applicable.

(Source: Added at 21 Ill. Reg. _____, effective _____)

Section 722.181 Definitions

The following definitions apply to this Subpart:

"Competent authorities" means the regulatory authorities of concerned countries having jurisdiction over transfrontier movements of wastes destined for recovery operations.

"Concerned countries" means the exporting and importing OECD member countries and any OECD member countries of transit.

"Consignee" means the person to whom possession or other form of legal control of the waste is assigned at the time the waste is received in the importing country.

"Country of transit" means any designated OECD country in Section 722.158(a)(1) and (a)(2) other than the exporting or importing country across which a transfrontier movement of wastes is planned or takes place.

"Exporting country" means any designated OECD member country in Section 722.158(a)(1) from which a transfrontier movement of wastes is planned or has commenced.

"Importing country" means any designated OECD country in Section 722.158(a)(1) to which a transfrontier movement of wastes is planned or takes place for the purpose of submitting the wastes to recovery operations therein.

"Notifier" means the person under the jurisdiction of the exporting country that has, or will have at the time the planned transfrontier movement commences, possession or other forms of legal control of the wastes and that proposes their transfrontier movement for the ultimate purpose of submitting them to recovery operations. When the United States (U.S.) is the exporting country, notifier is interpreted to mean a person domiciled in the U.S.

"OECD area" means all land or marine areas under the national jurisdiction of any designated OECD member country in Section 722.158. When the regulations refer to shipments to or from an OECD country, this means OECD area.

"Recognized trader" means a person that, with appropriate authorization of concerned countries, acts in the role of principal to purchase and subsequently sell wastes; this person has legal control of such wastes

from time of purchase to time of sale; such a person may act to arrange and facilitate transfrontier movements of wastes destined for recovery operations.

"Recovery facility" means an entity which, under applicable domestic law, is operating or is authorized to operate in the importing country to receive wastes and to perform recovery operations on them.

"Recovery operations" means activities leading to resource recovery, recycling, reclamation, direct re-use, or alternative uses, as listed in Table 2.B of the Annex of OECD Council Decision C(88)90(Final) of 27 May 1988, incorporated by reference in 35 Ill. Adm. Code 720.111, which include the following activities:

R1 Use as a fuel (other than in direct incineration) or other means to generate energy,

R2 Solvent reclamation or regeneration,

R3 Recycling or reclamation of organic substances which are not used as solvents,

R4 Recycling or reclamation of metals and metal compounds,

R5 Recycling or reclamation of other inorganic materials,

R6 Regeneration of acids or bases,

R7 Recovery of components used for pollution control,

R8 Recovery of components from catalysts,

R9 Used oil re-refining or other reuses of previously used oil,

R10 Land treatment resulting in benefit to agriculture or ecological improvement,

R11 Uses of residual materials obtained from any of the operations numbered R1 through R10,

R12 Exchange of wastes for submission to any of the operations numbered R1 through R11, and

R13 Accumulation of material intended for any operation in Table 2.B.

"Transfrontier movement" means any shipment of wastes destined for recovery operations from an area under the national jurisdiction of one OECD member country to an area under the national jurisdiction of another OECD member country.

(Source: Added at 21 Ill. Reg. _____, effective _____)

Section 722.182 General Conditions

a) Scope. The level of control for exports and imports of waste is indicated by assignment of the waste to a green, amber, or red list and by U.S. national procedures, as defined in Section 722.180(a). The green, amber, and red lists are incorporated by reference in 35 Ill. Adm. Code 720.111(b).

1) Wastes on the green list are subject to existing controls normally applied to commercial transactions, except as provided below:

A) Green-list wastes that are considered hazardous under U.S. national procedures are subject to amber-list controls.

B) Green-list wastes that are sufficiently contaminated or mixed with amber-list wastes, such that the waste or waste mixture is considered hazardous under U.S. national procedures, are subject to amber-list controls.

C) Green-list wastes that are sufficiently contaminated or mixed with other wastes subject to red-list controls, such that the waste or waste mixture is considered hazardous under U.S. national procedures, must be handled in accordance with the red-list controls.

2) Wastes on the amber list that are considered hazardous under U.S. national procedures, as defined in Section 722.180(a), are subject to the amber-list controls of this Subpart. If amber-list wastes are sufficiently contaminated or mixed with other wastes subject to red-list controls, such that the waste or waste mixture is considered hazardous under U.S. national procedures, the wastes must be handled in accordance with the red-list controls.

3) Wastes on the red list that are considered hazardous under U.S. national procedures, as defined in Section 722.180(a), are subject to the red-list controls of this Subpart.

BOARD NOTE: Some wastes on the amber or red lists are not listed or otherwise identified as hazardous under RCRA (e.g., polychlorinated biphenyls) and therefore are not subject to the amber- or red-list controls of this Subpart. Regardless of the status of the waste under RCRA, however, other federal environmental statutes (e.g., the Toxic Substances Control Act) may restrict certain waste imports or exports. Such restrictions continue to apply without regard to this Subpart.

4) Wastes not yet assigned to a list are eligible for transfrontier movements, as follows:

A) If such wastes are considered hazardous under U.S. national procedures, as defined in Section 722.180(a), these wastes are subject to the red-list controls; or

B) If such wastes are not considered hazardous under U.S. national procedures, as defined in Section 722.180(a), such wastes may move as though they appeared on the green list.

b) General conditions applicable to transfrontier movements of hazardous waste.

1) The waste must be destined for recovery operations at a facility that, under applicable domestic law, is operating or is authorized to operate in the importing country;

2) The transfrontier movement must be in compliance with applicable international transport agreements; and

BOARD NOTE: These international agreements include, but are not limited to, the Chicago Convention (1944), ADR (1957), ADNR (1970), MARPOL Convention (1973/1978), SOLAS Convention (1974), IMDG Code (1985), COTIF (1985), and RID (1985).

3) Any transit of waste through a non-OECD member country must be conducted in compliance with all applicable international and national laws and regulations.

c) Provisions relating to re-export for recovery to a third country.

1) Re-export of wastes subject to the amber-list control system from the U.S., as the importing country, to a third country listed in Section 722.158(a)(1) may occur only after a notifier in the U.S. provides notification to and obtains consent of the competent authorities in the third country, the original exporting country, and new transit countries. The notification must comply with the notice and consent procedures in Section 722.183 for all concerned countries and the original exporting country. The competent authorities of the original exporting country, as well as the competent authorities of all other concerned countries, have 30 days to object to the proposed movement.

A) The 30-day period begins once the competent authorities of both the initial exporting country and new importing country issue Acknowledgments of Receipt of the notification.

B) The transfrontier movement may commence if no objection has been lodged after the 30-day period has passed or immediately after written consent is received from all relevant OECD importing and transit countries.

2) Re-export of waste subject to the red-list control system from the original importing country to a third country listed in Section 722.158(a)(1) may occur only following notification of the competent authorities of the third country, the original exporting country, and new transit countries by a notifier in the original importing country in accordance with Section 722.183. The transfrontier movement may not proceed until receipt by the original importing country of written consent from the competent authorities of the third country, the original exporting country, and new transit countries.

3) In the case of re-export of amber- or red-list wastes to a country other than those in Section 722.158(a)(1), notification to and consent of the competent authorities of the original OECD member country of export and any OECD member countries of transit is required as specified in subsections (c)(1) and (c)(2) of this Section in addition to compliance with all international agreements and arrangements to which the first importing OECD member country is a party and all applicable regulatory requirements for exports from the first importing country.

(Source: Added at 21 Ill. Reg. _____, effective _____)

Section 722.183 Notification and Consent

a) Applicability. Consent must be obtained from the competent authorities of the relevant OECD importing and transit countries prior to exporting hazardous waste destined for recovery operations subject to this Subpart. Hazardous wastes subject to amber-list controls are subject to the requirements of subsection (b) of this Section; hazardous wastes subject to red-list controls are subject to the requirements of subsection (c) of this Section; and wastes not identified on any list are subject to the requirements of subsection (d) of this Section.

b) Amber-list wastes. The export from the U.S. of hazardous wastes, as described in Section 722.180(a), that appear on the amber list is prohibited unless the notification and consent requirements of subsection (b)(1) or subsection (b)(2) of this Section are met.

1) Transactions requiring specific consent:

A) Notification. At least 45 days prior to commencement of the transfrontier movement, the notifier must provide written notification in English of the proposed transfrontier movement to the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 401 M St., SW, Washington, DC 20460, and the Illinois Environmental Protection Agency, Bureau of Land, Division of Land Pollution Control, P.O. Box 19276, Springfield, IL 62794-9276, with the words "Attention: OECD Export Notification" prominently displayed on the envelope. This notification must include all of the information identified in subsection (e) of this Section. In cases where wastes having similar physical and chemical characteristics, the same United Nations classification, and the same RCRA waste codes are to be sent periodically to the same recovery facility by the same notifier, the notifier may submit one notification of intent to export these wastes in multiple shipments during a period of up to one year.

B) Tacit consent. If no objection has been lodged by any concerned country (i.e., exporting, importing, or transit countries) to a notification provided pursuant to subsection (b)(1)(A) of this Section within 30 days after the date of issuance of the Acknowledgment of Receipt of notification

by the competent authority of the importing country, the transfrontier movement may commence. Tacit consent expires one calendar year after the close of the 30 day period; renotification and renewal of all consents is required for exports after that date.

C) Written consent. If the competent authorities of all the relevant OECD importing and transit countries provide written consent in a period less than 30 days, the transfrontier movement may commence immediately after all necessary consents are received. Written consent expires for each relevant OECD importing and transit country one calendar year after the date of that country's consent unless otherwise specified; renotification and renewal of each expired consent is required for exports after that date.

2) Shipments to facilities pre-approved by the competent authorities of the importing countries to accept specific wastes for recovery:

A) The notifier must provide USEPA and the Agency the information identified in subsection (e) of this Section in English, at least 10 days in advance of commencing shipment to a pre-approved facility. The notification should indicate that the recovery facility is pre-approved, and may apply to a single specific shipment or to multiple shipments as described in subsection (b)(1)(A) of this Section. This information must be sent to the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 401 M St., SW., Washington, DC 20460, and the Illinois Environmental Protection Agency, Bureau of Land, Division of Land Pollution Control, P.O. Box 19276, Springfield, IL 62794-9276, with the words "OECD Export Notification--Pre-approved Facility" prominently displayed on the envelope.

B) Shipments may commence after the notification required in subsection (b)(1)(A) of this Section has been received by the competent authorities of all concerned countries, unless the notifier has received information indicating that the competent authorities of one or more concerned countries objects to the shipment.

c) Red-list wastes. The export from the U.S. of hazardous wastes, as described in Section 722.180(a), that appear on the red list is prohibited unless notice is given pursuant to subsection (b)(1)(A) of this Section and the notifier receives written consent from the importing country and any transit countries prior to commencement of the transfrontier movement.

d) Unlisted wastes. Wastes not assigned to the green, amber, or red list that are considered hazardous under U.S. national procedures, as defined in Section 722.180(a), are subject to the notification and consent requirements established for red-list wastes in accordance with subsection (c) of this Section. Unlisted wastes that are not considered hazardous under U.S. national procedures, as defined in Section 722.180(a), are not subject to amber or red controls when exported or imported.

e) Notification information. Notifications submitted under this Section must include:

1) Serial number or other accepted identifier of the notification form;

2) Notifier name and USEPA identification number (if applicable), address, and telephone and telefax numbers;

3) Importing recovery facility name, address, telephone and telefax numbers, and technologies employed;

4) Consignee name (if not the owner or operator of the recovery facility), address, and telephone and telefax numbers; whether the consignee will engage in waste exchange or storage prior to delivering the waste to the final recovery facility; and identification of recovery operations to be employed at the final recovery facility;

5) Intended transporters or their agents;

6) Country of export and relevant competent authority and point of departure;

7) Countries of transit and relevant competent authorities and points of entry and departure;

8) Country of import and relevant competent authority and point of entry;

9) Statement of whether the notification is a single notification or a general notification. If general, include period of validity requested;

10) Date foreseen for commencement of transfrontier movement;

11) Designation of waste type(s) from the appropriate list (amber or red and waste list code), descriptions of each waste type, estimated total quantity of each, RCRA waste code, and United Nations number for each waste type; and

12) Certification/Declaration signed by the notifier that states as follows:

"I certify that the above information is complete and correct to the best of my knowledge. I also certify that legally-enforceable written contractual obligations have been entered into, and that any applicable insurance or other financial guarantees are or shall be in force covering the transfrontier movement.

Name: _____

Signature: _____

Date: _____"

BOARD NOTE: The U.S. does not currently require financial assurance; however, U.S. exporters may be asked by other governments to provide and certify to such assurance as a condition of obtaining consent to a proposed movement.

(Source: Added at 21 Ill. Reg. _____, effective _____)

Section 722.184 Tracking Document

a) All U.S. parties subject to the contract provisions of Section 722.185 must ensure that a tracking document meeting the conditions of subsection (b) of this Section accompanies each transfrontier shipment of wastes subject to amber-list or red-list controls from the initiation of the shipment until it reaches the final recovery facility, including cases in which the waste is stored or exchanged by the consignee prior to shipment to the final recovery facility, except as provided in Section 262.184(a)(1) and (a)(2).

1) For shipments of hazardous waste within the U.S. solely by water (bulk shipments only), the generator must forward the tracking document with the manifest to the last water (bulk shipment) transporter to handle the waste in the U.S. if exported by water (in accordance with the manifest routing procedures at Section 722.123(c)).

2) For rail shipments of hazardous waste within the U.S. which originate at the site of generation, the generator must forward the tracking document with the manifest (in accordance with the routing procedures for the manifest in Section 722.123(d)) to the next non-rail transporter, if any, or the last rail transporter to handle the waste in the U.S. if exported by rail.

b) The tracking document must include all information required under Section 722.183 (for notification) and the following:

1) The date shipment commenced;

2) The name (if not notifier), address, and telephone and telefax numbers of primary exporter;

3) The company name and USEPA identification number of all transporters;

4) Identification (license, registered name or registration number) of means of transport, including types of packaging;

5) Any special precautions to be taken by transporters;

6) A certification or declaration signed by notifier that no objection to the shipment has been lodged as follows:

"I certify that the above information is complete and correct to the best of my knowledge. I also certify that legally-enforceable written contractual obligations have been entered into, that any applicable insurance or other financial guarantees are or shall be in force covering the transfrontier movement, and that:"

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

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

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

(delete sentences that are not applicable)

Name: _____

Signature: _____

Date: _____"; and

7) The appropriate signatures for each custody transfer (e.g., transporter, consignee, and owner or operator of the recovery facility).

c) Notifiers also must comply with the special manifest requirements of Section 722.154(a), (b), (c), (e), and (i) and consignees must comply with the import requirements of Subpart F of this Part.

d) Each U.S. person that has physical custody of the waste from the time the movement commences until it arrives at the recovery facility must sign the tracking document (e.g., transporter, consignee, and owner or operator of the recovery facility).

e) Within three working days of the receipt of imports subject to this Subpart, the owner or operator of the U.S. recovery facility must send signed copies of the tracking document to the notifier, to the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 401 M St., SW., Washington, DC 20460, and to the competent authorities of the exporting and transit countries.

(Source: Added at 21 Ill. Reg. _____, effective _____)

Section 722.185 Contracts

a) Transfrontier movements of hazardous wastes subject to amber or red control procedures are prohibited unless they occur under the terms of a valid written contract, chain of contracts, or equivalent arrangements (when the movement occurs between parties controlled by the same corporate or legal entity). Such contracts or equivalent arrangements must be executed by the notifier and the owner or operator of the

recovery facility, and must specify responsibilities for each. Contracts or equivalent arrangements are valid for the purposes of this Section only if persons assuming obligations under the contracts or equivalent arrangements have appropriate legal status to conduct the operations specified in the contract or equivalent arrangement.

b) Contracts or equivalent arrangements must specify the following names and USEPA identification numbers, where available:

1) The generator of each type of waste;

2) Each person that will have physical custody of the wastes;

3) Each person that will have legal control of the wastes; and

4) The recovery facility.

c) Contracts or equivalent arrangements must specify which party to the contract will assume responsibility for alternate management of the wastes if its disposition cannot be carried out as described in the notification of intent to export. In such cases, contracts must specify the following:

1) That the person having actual possession or physical control over the wastes will immediately inform the notifier and the competent authorities of the exporting and importing countries and, if the wastes are located in a country of transit, the competent authorities of that country; and

2) That the person specified in the contract will assume responsibility for the adequate management of the wastes in compliance with applicable laws and regulations including, if necessary, arranging their return to the original country of export.

d) Contracts must specify that the consignee will provide the notification required in Section 722.182(c) prior to re-export of controlled wastes to a third country.

e) Contracts or equivalent arrangements must include provisions for financial guarantees, if required by the competent authorities of any concerned country, in accordance with applicable national or international law requirements.

BOARD NOTE: Financial guarantees so required are intended to provide for alternative recycling, disposal, or other means of sound management of the wastes in cases where arrangements for the shipment and the recovery operations cannot be carried out as foreseen. The U.S. does not require such financial guarantees at this time; however, some OECD countries do. It is the responsibility of the notifier to ascertain and comply with such requirements; in some cases, transporters or consignees may refuse to enter into the necessary contracts absent specific references or certifications to financial guarantees.

f) Contracts or equivalent arrangements must contain provisions requiring each contracting party to comply with all applicable requirements of this Subpart.

g) Upon request by USEPA or the Agency, U.S. notifiers, consignees, or recovery facilities shall submit to USEPA and the Agency copies of contracts, chain of contracts, or equivalent arrangements (when the movement occurs between parties controlled by the same corporate or legal entity). Information contained in the contracts or equivalent arrangements for which a claim of confidentiality is asserted in accordance with 35 Ill. Adm. Code 120 will be treated as confidential and will be disclosed by the Agency only as provided in 35 Ill. Adm. Code 120.

BOARD NOTE: Although the U.S. does not require routine submission of contracts at this time, OECD Council Decision C(92)39/FINAL allows members to impose such requirements. When other OECD countries require submission of partial or complete copies of the contract as a condition to granting consent to proposed movements, USEPA or the Agency will request the required information; absent submission of such information, some OECD countries may deny consent for the proposed movement.

(Source: Added at 21 Ill. Reg. _____, effective _____)

Section 722.186 Provisions Relating to Recognized Traders

a) A recognized trader that takes physical custody of a waste and conducts recovery operations (including storage prior to recovery) is acting as the owner or operator of a recovery facility and must be so authorized in accordance with all applicable federal laws.

b) A recognized trader acting as a notifier or consignee for transfrontier shipments of waste must comply with all the notifier or consignee requirements of this Subpart.

(Source: Added at 21 Ill. Reg. _____, effective _____)

Section 722.187 Reporting and Recordkeeping

a) Annual reports. For all waste movements subject to this Subpart, persons (e.g., notifiers, recognized traders) that meet the definition of primary exporter in Section 722.151 shall file an annual report with the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), U.S. Environmental Protection Agency, 401 M St., SW., Washington, DC 20460 and the Illinois Environmental Protection Agency, Bureau of Land, Division of Land Pollution Control, P.O. Box 19276, Springfield, IL 62706-9276, no later than March 1 of each year summarizing the types, quantities, frequency, and ultimate destination of all such hazardous waste exported during the previous calendar year. (If the primary exporter is required to file an annual report for waste exports that are not covered under this Subpart, the person filing may include all export information in one report provided the following information on exports of waste destined for recovery within the designated OECD member countries is contained in a separate Section). Such reports shall include the following information:

1) The USEPA identification number, name, and mailing and site address of the notifier filing the report;

2) The calendar year covered by the report;

3) The name and site address of each final recovery facility;

4) By final recovery facility, for each hazardous waste exported, a description of the hazardous waste, the USEPA hazardous waste number (from 35 Ill. Adm. Code 721.Subpart C or 721.Subpart D), the designation of waste type(s) from the OECD waste list and applicable waste code from the OECD lists, DOT hazard class, the name and USEPA identification number (where applicable) for each transporter used, the total amount of hazardous waste shipped pursuant to this Subpart, and number of shipments pursuant to each notification;

5) In even numbered years, for each hazardous waste exported, except for hazardous waste produced by exporters of greater than 100 kilograms (kg) but less than 1000 kg in a calendar month, and except for hazardous waste for which information was already provided pursuant to Section 722.141:

A) A description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated; and

B) A description of the changes in volume and toxicity of the waste actually achieved during the year in comparison to previous years to the extent such information is available for years prior to 1984; and

6) A certification signed by the person acting as primary exporter that states as follows:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."

b) Exception reports. Any person that meets the definition of primary exporter in Section 722.151 shall file with USEPA and the Agency an exception report in lieu of the requirements of Section 722.142 if any of the following occurs:

1) The person has not received a copy of the tracking documentation signed by the transporter stating point of departure of the waste from the United States within 45 days from the date it was accepted by the initial transporter;

2) Within 90 days from the date the waste was accepted by the initial transporter, the notifier has not received written confirmation from the recovery facility that the hazardous waste was received; or

3) The waste is returned to the United States.

c) Recordkeeping.

1) Persons that meet the definition of primary exporter in Section 722.151 shall keep the following records:

A) A copy of each notification of intent to export and all written consents obtained from the competent authorities

of concerned countries, for a period of at least three years from the date the hazardous waste was accepted by the initial transporter;

B) A copy of each annual report, for a period of at least three years from the due date of the report; and

C) A copy of any exception reports and a copy of each confirmation of delivery (i.e., tracking documentation) sent by the recovery facility to the notifier, for at least three years from the date the hazardous waste was accepted by the initial transporter or received by the recovery facility, whichever is applicable.

2) The periods of retention referred to in this Section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by USEPA or the Agency.

(Source: Added at 21 Ill. Reg. _____, effective _____)

Section 722.189 OECD Waste Lists

a) General. For the purposes of this Subpart, a waste is considered hazardous under U.S. national procedures, and hence subject to this Subpart, if the waste:

1) Meets the federal definition of hazardous waste in 35 Ill. Adm. Code 721.103; and

2) Is subject to either the hazardous waste manifesting requirements of Subpart B of this Part or the universal waste management standards of 35 Ill. Adm. Code 733.

b) If a waste is hazardous under subsection (a) of this Section and it appears on the amber or red list, it is subject to either the amber- or red-list requirements, as appropriate.

c) If a waste is hazardous under subsection (a) of this Section and it does not appear on either the amber or red list, it is subject to the red-list requirements.

d) The appropriate control procedures for hazardous wastes and hazardous waste mixtures are addressed in Section 722.182.

e) The OECD Green List of Wastes (revised May 1994), Amber List of Wastes (revised May 1993), and Red List of Wastes (revised May 1993), as set forth in Appendix 3, Appendix 4 and Appendix 5, respectively, to the OECD Council Decision C(92)39/FINAL (Concerning the Control of Transfrontier Movements of Wastes Destined for Recovery Operations), incorporated by reference in 35 Ill. Adm. Code 720.111.

(Source: Added at 21 Ill. Reg. _____, effective _____)

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

PART 723
STANDARDS APPLICABLE TO TRANSPORTERS OF HAZARDOUS WASTE

SUBPART A: GENERAL

Section
723.110 Scope
723.111 USEPA Identification Number
723.112 Transfer Facility Requirements

SUBPART B: COMPLIANCE WITH THE MANIFEST SYSTEM AND RECORDKEEPING

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

SUBPART C: HAZARDOUS WASTE DISCHARGES

Section
723.130 Immediate Action
723.131 Discharge Clean Up

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

SOURCE: Adopted in R81-22, 43 PCB 427, at 5 Ill. Reg. 9781, effective May 17, 1982; amended and codified in R81-22, 45 PCB 17, at 6 Ill. Reg. 4828, effective May 17, 1982; amended in R84-9, at 9 Ill. Reg. 11961, effective July 24, 1985; amended in R86-19, at 10 Ill. Reg. 20718, effective December 2, 1986; amended in R86-46 at 11

Ill. Reg. 13570, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19412, effective November 12, 1987; amended in R95-6 at 19 Ill. Reg. 9945, effective June 27, 1995; amended in R96-10/R97-3/R97-5 at 21 Ill. Reg. _____, effective _____.

SUBPART A: GENERAL

Section 723.110 Scope

a) These regulations establish standards which apply to persons transporting hazardous waste into, out of or through Illinois if the transportation requires a manifest under ~~Part~~35 Ill. Adm. Code 722.

b) These regulations do not apply to on-site transportation of hazardous waste by generators or by owners or operators of permitted hazardous waste management facilities.

c) A transporter of hazardous waste must also comply with ~~Part~~35 Ill. Adm. Code 722, "Standards Applicable to Generators of Hazardous Waste", if he:

1) Transports hazardous waste into the United States from abroad; or

2) Mixes hazardous waste of different DOT shipping descriptions by placing them into a single container.

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

d) ~~Part 700 contains rules concerning application of other Board regulations.~~A transporter of hazardous waste subject to the manifesting requirements of 35 Ill. Adm. Code 722 or the waste management standards of 35 Ill. Adm. Code 733 that is being imported from or exported to any of the countries listed in 35 Ill. Adm. Code 722.158(a)(1) for purposes of recovery is subject to this Subpart and to all other relevant requirements of 35 Ill. Adm. Code 722.Subpart H, including, but not limited to, 35 Ill. Adm. Code 722.184 for tracking documents.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

SUBPART B: COMPLIANCE WITH THE MANIFEST SYSTEM AND RECORDKEEPING

Section 723.120 The Manifest System

a) No acceptance without a manifest.

1) A transporter shall not accept hazardous waste from a generator unless it is accompanied by a manifest signed in accordance with the provisions of 35 Ill. Adm. Code 722.120. In the case of exports other than those subject to 35 Ill. Adm. Code 722.Subpart H, a transporter shall not accept such waste from a primary exporter or other person:

~~1~~A) If the transporter knows the shipment does not conform with the USEPA Acknowledgement of Consent (as defined in 35 Ill. Adm. Code 722.151); and

~~2~~B) Unless, in addition to a manifest signed in accordance with 35 Ill. Adm. Code 722.120, the waste is also accompanied by a USEPA Acknowledgement of Consent which, except for shipment by rail, is attached to the manifest (or shipping paper for exports by water (bulk shipment)).

2) For exports of hazardous waste subject to the requirements of 35 Ill. Adm. Code 722.Subpart H, a transporter may not accept hazardous waste without a tracking document that includes all information required by 35 Ill. Adm. Code 722.184.

b) Before transporting the hazardous waste, the transporter shall sign and date the manifest acknowledging acceptance of the hazardous waste from the generator. The transporter shall return a signed copy to the generator before leaving the generator's property.

c) The transporter shall ensure that the manifest accompanies the hazardous waste. In the case of exports, the transporter shall ensure that a copy of the USEPA Acknowledgement of Consent also accompanies the hazardous waste.

d) A transporter ~~who~~that delivers a hazardous waste to another transporter or to the designated facility shall:

1) Obtain the date of delivery and the handwritten signature of that transporter or of the owner or operator of the designated facility on the manifest; and

2) Retain one copy of the manifest in accordance with Section 723.122; and

3) Give the remaining copies of the manifest to the accepting transporter or designated facility.

e) The requirements of subsections (c), (d) and (f) do not apply to water (bulk shipment) transporters if:

1) The hazardous waste is delivered by water (bulk shipment) to the designated facility; and

2) A shipping paper containing all the information required on the manifest (excluding the USEPA identification numbers, generator certification and signatures) accompanies the hazardous waste and, for exports, a USEPA Acknowledgement of Consent accompanies the hazardous waste; and

3) The delivering transporter obtains the date of delivery and handwritten signature of the owner or operator designated facility on either the manifest or the shipping paper; and

4) The person delivering the hazardous waste to the initial water (bulk shipment) transporter obtains the date of delivery and signature of the water (bulk shipment) transporter on the manifest and forwards it to the designated facility; and

5) A copy of the shipping paper or manifest is retained by each water (bulk shipment) transporter in accordance with Section 723.122.

f) For shipments involving rail transportation, the requirements of subsections (c), (d) and (e) do not apply and the following requirements do apply:

1) When accepting hazardous waste from a non-rail transporter, the initial rail transporter shall:

A) Sign and date the manifest acknowledging acceptance of the hazardous waste;

B) Return a signed copy of the manifest to the non-rail transporter;

C) Forward at least three copies of the manifest to:

i) The next non-rail transporter, if any; ~~or,~~

ii) The designated facility, if the shipment is delivered to that facility by rail; or

iii) The last rail transporter designated to handle the waste in the United States;

D) Retain one copy of the manifest and rail shipping paper in accordance with Section 723.122.

2) Rail transporters shall ensure that a shipping paper containing all the information required on the manifest (excluding the USEPA identification numbers, generator certification and signatures) and, for exports, a USEPA Acknowledgement of Consent accompanies the hazardous waste at all times.

~~(Board Note~~BOARD NOTE: Intermediate rail transporters are not required to sign either the manifest or shipping paper.~~)~~

3) When delivering hazardous waste to the designated facility, a rail transporter shall:

A) Obtain the date of delivery and handwritten signature of the owner or operator of the designated facility on the manifest or the shipping paper (if the manifest has not been received by the facility); and

B) Retain a copy of the manifest or signed shipping paper in accordance with Section 723.122.

4) When delivering hazardous waste to a non-rail transporter a rail transporter shall:

A) Obtain the date of delivery and the handwritten signature of the next non-rail transporter on the manifest; and

B) Retain a copy of the manifest in accordance with Section 723.122.

5) Before accepting hazardous waste from a rail transporter, a non-rail transporter shall sign and date the manifest and provide a copy to the rail transporter.

g) Transporters ~~who~~that transport hazardous waste out of the United States shall:

1) Indicate on the manifest the date the hazardous waste left the United States; and

2) Sign the manifest and retain one copy in accordance with Section 723.122(c); and

3) Return a signed copy of the manifest to the generator; and

4) Give a copy of the manifest to a United States Customs official at the point of departure from the United States.

h) A transporter transporting hazardous waste from a generator ~~who~~that generates greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month need not comply with the requirements of this Section or those of Section 723.122 provided that:

1) The waste is being transported pursuant to a reclamation agreement provided for in 35 Ill. Adm. Code 722.120(e);

2) The transporter records, on a log or shipping paper, the following information for each shipment:

A) The name, address and USEPA Identification Number (35 Ill. Adm. Code 722.112) of the generator of the waste;

B) The quantity of waste accepted;

C) All shipping information required by the United States Department of Transportation;

D) The date the waste is accepted; and

3) The transporter carries this record when transporting waste to the reclamation facility; and

4) The transporter retains these records for a period of at least three years after termination or expiration of the agreement.

(Source: Amended at 21 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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SUBPART H: FINANCIAL REQUIREMENTS

SUBPART I: USE AND MANAGEMENT OF CONTAINERS

SUBPART J: TANK SYSTEMS

SUBPART K: SURFACE IMPOUNDMENTS

SUBPART L: WASTE PILES

SUBPART M: LAND TREATMENT

SUBPART N: LANDFILLS

SUBPART AA: AIR EMISSION STANDARDS FOR PROCESS VENTS

SUBPART BB: AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

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

SUBPART DD: CONTAINMENT BUILDINGS

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

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

SUBPART B: GENERAL FACILITY STANDARDS

Section 724.112 Required Notices

a) Receipt from a foreign source.

1) The owner or operator of a facility that has arranged to receive hazardous waste from a foreign source must notify the Regional Administrator in writing at least four weeks in advance of the date the waste is expected to arrive at the facility. Notice of subsequent shipments of the same waste from the same foreign source is not required.

2) The owner or operator of a recovery facility that has arranged to receive hazardous waste subject to 35 Ill. Adm. Code 722.Subpart H must provide a copy of the tracking document bearing all required signatures to the notifier, to the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 401 M St., SW, Washington, DC 20460; to the Bureau of Land, Division of Land Pollution Control, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, IL 62794-9276; and to the competent authorities of all other concerned countries within three working days of receipt of the shipment. The original of the signed tracking document must be maintained at the facility for at least three years.

b) The owner or operator of a facility that receives hazardous waste from an off-site source (except where the owner or operator is also the generator) must inform the generator in writing that the owner or operator has the appropriate permit(s) for, and will accept, the waste the generator is shipping. The owner or operator must keep a copy of this written notice as part of the operating record.

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

BOARD NOTE: An owner's or operator's failure to notify the new owner or operator of the requirements of this Part in no way relieves the

new owner or operator of his obligation to comply with all applicable requirements.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 724.113 General Waste Analysis

a) Analysis:

1) Before an owner or operator treats, stores, or disposes of any hazardous wastes, or non-hazardous wastes if applicable under Section 724.213(d), the owner or operator shall obtain a detailed chemical and physical analysis of a representative sample of the wastes. At a minimum, the analysis must contain all the information that must be known to treat, store, or dispose of the waste in accordance with this Part and 35 Ill. Adm. Code 728.

2) The analysis may include data developed under 35 Ill. Adm. Code 721 and existing published or documented data on the hazardous waste or on hazardous waste generated from similar processes.

BOARD NOTE: For example, the facility's records of analyses performed on the waste before the effective date of these regulations or studies conducted on hazardous waste generated from processes similar to that which generated the waste to be managed at the facility may be included in the data base required to comply with subsection (a)(1) ~~above~~of this Section. The owner or operator of an off-site facility may arrange for the generator of the hazardous waste to supply part or all of the information required by subsection (a)(1) ~~above~~of this Section, except as otherwise specified in 35 Ill. Adm. Code 728.107(b) and (c). If the generator does not supply the information, and the owner or operator chooses to accept a hazardous waste, the owner or operator is responsible for obtaining the information required to comply with this Section.

3) The analysis must be repeated as necessary to ensure that it is accurate and up to date. At a minimum, the analysis must be repeated:

A) When the owner or operator is notified, or has reason to believe, that the process or operation generating the hazardous waste, or non-hazardous waste if applicable under Section 724.213(d), has changed; and

B) For off-site facilities, when the results of the inspection required in subsection (a)(4) ~~below~~of this Section indicate that the hazardous waste received at the facility does not match the waste designated on the accompanying manifest or shipping paper.

4) The owner or operator of an off-site facility shall inspect and, if necessary, analyze each hazardous waste shipment received at the facility to determine whether it matches the identity of the waste specified on the accompanying manifest or shipping paper.

b) The owner or operator shall develop and follow a written waste analysis plan that describes the procedures that it will carry out to comply with subsection (a) ~~above~~of this Section. The owner or operator shall keep this plan at the facility. At a minimum, the plan must specify:

1) The parameters for which each hazardous waste, or non-hazardous waste if applicable under Section 724.213(d), will be analyzed and the rationale for the selection of these parameters (i.e., how analysis for these parameters will provide sufficient information on the waste's properties to comply with subsection (a) ~~above~~of this Section).

2) The test methods that will be used to test for these parameters.

3) The sampling method that will be used to obtain a representative sample of the waste to be analyzed. A representative sample may be obtained using either:

A) One of the sampling methods described in 35 Ill. Adm. Code 721.Appendix A; or

B) An equivalent sampling method.

BOARD NOTE: See 35 Ill. Adm. Code 720.121.

4) The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date.

5) For off-site facilities, the waste analyses that hazardous waste generators have agreed to supply.

6) Where applicable, the methods that will be used to meet the additional waste analysis requirements for specific waste management methods as specified in Sections 724.117, 724.414, 724.441, 724.934(d), 724.963(d), and 724.983 and 35 Ill. Adm. Code 728.107.

7) For surface impoundments exempted from land disposal restrictions under 35 Ill. Adm. Code 728.104(a), the procedures and schedules for:

A) The sampling of impoundment contents;

B) The analysis of test data; and

C) The annual removal of residues that are not delisted under 35 Ill. Adm. Code 720.122 or which exhibit a characteristic of hazardous waste and either:

i) Do not meet applicable treatment standards of 35 Ill. Adm. Code 728.Subpart D; or

ii) Where no treatment standards have been established, such residues are prohibited from land disposal under 35 Ill. Adm. Code 728.132 or 728.139 or such residues are prohibited from land disposal under 35 Ill. Adm. Code 728.133(f).

8) For owners and operators seeking an exemption to the air emission standards of 724.Subpart CC in accordance with Section 724.982:

A) ~~T~~If direct measurement is used for the waste determination, the procedures and schedules for waste sampling and analysis and the analysis of test data to verify the exemption~~, and~~.

B) ~~Each generator's notice and certification of the volatile organic concentration in the waste if the waste is received from off site~~If knowledge of the waste is used for the waste determination, any information prepared by the facility owner or operator or by the generator of the waste, if the waste is received from off-site, that is used as the basis for knowledge of the waste.

c) For off-site facilities, the waste analysis plan required in subsection (b) ~~above~~of this Section must also specify the procedures that will be used to inspect and, if necessary, analyze each shipment of hazardous waste received at the facility to ensure that it matches the identity of the waste designated on the accompanying manifest or shipping paper. At a minimum, the plan must describe:

1) The procedures that will be used to determine the identity of each movement of waste managed at the facility;

2) The sampling method that will be used to obtain a representative sample of the waste to be identified, if the identification method includes sampling; and

3) The procedures that the owner or operator of an off-site landfill receiving containerized hazardous waste will use to determine whether a hazardous waste generator or treater has added a biodegradable sorbent to the waste in the container.

BOARD NOTE: 35 Ill. Adm. Code 703 requires that the waste analysis plan be submitted with Part B of the permit application.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

SUBPART E: MANIFEST SYSTEM, RECORDKEEPING AND REPORTING

Section 724.171 Use of Manifest System

a) If a facility receives hazardous waste accompanied by a manifest, the owner or operator, or the owner or operator's agent, must:

1) Sign and date each copy of the manifest to certify that the hazardous waste covered by the manifest was received;

2) Note any significant discrepancies in the manifest (as defined in Section 724.172(a)) on each copy of the manifest;

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 manifest and giving it to the transporter. Section 724.172(b), however, requires reporting an unreconciled discrepancy discovered during later analysis.

3) Immediately give the transporter at least one copy of the signed manifest;

4) Within 30 days after the delivery, send a copy of the manifest to the generator and to the Agency; and

5) Retain at the facility a copy of each manifest for at least three years from the date of delivery.

b) If a facility receives, from a rail or water (bulk shipment) transporter, hazardous waste which 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:

1) Sign and date each copy of the manifest or shipping paper (if the manifest has not been received) to certify that the hazardous waste covered by the manifest or shipping paper was received;

2) Note any significant discrepancies (as defined in Section 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) 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) Within 30 days after the delivery, send a copy of the signed and dated manifest to the generator and to the Agency; however, if the manifest has not been received within 30 days after delivery, the owner or operator, or the owner or operator's agent, must send a copy of the shipping paper signed and dated to the generator; 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 ~~who~~that are shipping hazardous waste which they generated at that facility.

d) Within three working days of the receipt of a shipment subject to 35 Ill. Adm. Code 722.Subpart H, the owner or operator of the facility must provide a copy of the tracking document bearing all required signatures to the notifier; to the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 401 M St., SW, Washington, DC 20460; to the Bureau of Land, Division of Land Pollution Control, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, IL 62794-9276; and to competent authorities of all other concerned countries. The original copy of the tracking document must be maintained at the facility for at least three years from the date of signature.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

SUBPART I: USE AND MANAGEMENT OF CONTAINERS

Section 724.279 Air Emission Standards

The owner or operator shall manage all hazardous waste placed in a container in accordance with the requirements of 724.Subparts AA, BB, and CC.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

SUBPART J: TANK SYSTEMS

Section 724.300 Air Emission Standards

The owner or operator shall manage all hazardous waste placed in a tank in accordance with the requirements of 724.Subparts AA, BB, and CC.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

SUBPART K: SURFACE IMPOUNDMENTS

Section 724.332 Air Emission Standards

The owner or operator shall manage all hazardous waste placed in a surface impoundment in accordance with the requirements of 724.Subparts BB and CC.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

SUBPART N: LANDFILLS

Section 724.414 Special Requirements for Bulk and Containerized Liquids

a) This subsection corresponds with 40 CFR 264.314(a), which pertains to pre May 8, 1985 actions, a date long since passed. This statement maintains structural consistency with U.S. EPA rules.

b) The placement of bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids (whether or not sorbents have been added) in any landfill is prohibited.

c) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", U.S. EPA Publication No. SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111.

d) Containers holding free liquids must not be placed in a landfill unless:

1) All free-standing liquid:

A) has been removed by decanting or other methods;

B) has been mixed with sorbent or solidified so that free-standing liquid is no longer observed; or

C) has been otherwise eliminated; or

2) The container is very small, such as an ampule; or

3) The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or

4) The container is a lab pack as defined in Section 724.416 and is disposed of in accordance with Section 724.416.

e) Sorbents used to treat free liquids to be disposed of in landfills must be nonbiodegradable. Nonbiodegradable sorbents are: materials listed or described in subsection (e)(1) ~~below~~of this Section; materials that pass one of the tests in subsection (e)(2) ~~below~~of this Section; or materials that are determined by the Board to be nonbiodegradable through the 35 Ill. Adm. Code 106 adjusted standard process.

1) Nonbiodegradable sorbents are:

A) Inorganic minerals, other inorganic materials, and elemental carbon (e.g., aluminosilicates, clays, smectites, Fuller's earth, bentonite, calcium bentonite, montmorillonite, calcined montmorillonite, kaolinite, micas (illite), vermiculites, zeolites; calcium carbonate (organic free limestone); oxides/hydroxides, alumina, lime, silica (sand), diatomaceous earth; perlite (volcanic glass); expanded volcanic rock; volcanic ash; cement kiln dust; fly ash; rice hull ash; activated charcoal (activated carbon)); or

B) High molecular weight synthetic polymers (e.g., polyethylene, high density polyethylene (HDPE), polypropylene, polystrene, ~~poly urethane~~polyurethane, polyacrylate, polynorborene, polyisobutylene, ground synthetic rubber, cross-linked allylstrene and tertiary butyl copolymers). This does not include polymers derived from biological material or polymers specifically designed to be degradable; or

C) Mixtures of these nonbiodegradable materials.

2) Tests for nonbiodegradable sorbents:

A) The sorbent material is determined to be nonbiodegradable under ASTM Method G21-70 (1984a)--"Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi", incorporated by reference in 35 Ill. Adm. Code 720.111; ~~or~~

B) The sorbent material is determined to be nonbiodegradable under ASTM Method G22-76 (1984b)--"Standard Practice for Determining Resistance of Plastics to Bacteria", incorporated by reference in 35 Ill. Adm. Code 720.111~~.~~; or

C) The sorbent material is determined to be non-biodegradable under OECD test 301B (CO_2 Evolution (Modified Sturm Test)), incorporated by reference in 35 Ill. Adm. Code 720.111.

f) The placement of any liquid that is not a hazardous waste in a landfill is prohibited (35 Ill. Adm. Code 729.311).

(Source: Amended at 21 Ill. Reg. _____, effective _____)

SUBPART AA: AIR EMISSION STANDARDS FOR PROCESS VENTS

Section 724.930 Applicability

a) This Subpart applies to owners and operators of facilities that treat, store or dispose of hazardous wastes (except as provided in Section 724.101).

b) Except for Sections 724.934(d) and (e), this Subpart applies to process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations that manage hazardous wastes with organic concentrations of at least 10 ppmw (parts per million by weight), if these operations are conducted in:

1) Units that are subject to the permitting requirements of 35 Ill. Adm. Code 703; ~~or~~

2) A unit (including a h~~H~~azardous waste recycling unit~~s~~) that ~~are~~is not exempt from permitting under the provisions of 35 Ill. Adm. Code 722.134(a) (i.e., a hazardous waste recycling unit that is not a 90-day tank or container) and that is located ~~on~~at a

hazardous waste management facilit~~ies~~y otherwise subject to the permitting requirements of 35 Ill. Adm. Code 703~~.~~; or

3) A unit that is exempt from permitting under the provisions of 35 Ill. Adm. Code 722.134(a) (i.e., a 90-day tank or container).

c) If the owner or operator of process vents subject to the requirements of Sections 724.932 through 724.936 has received a RCRA permit prior to December 21, 1990, the requirements of Sections 724.932 through 724.936 must be incorporated when the permit is reissued under 35 Ill. Adm. Code 705.201 or reviewed under 35 Ill. Adm. Code 702.161.

BOARD NOTE: The requirements of Sections 724.932 through 724.936 apply to process vents on hazardous waste recycling units previously exempt under 35 Ill. Adm. Code 721.106(c)(1). Other exemptions under 35 Ill. Adm. Code 721.104, 722.134 and 724.101(g) are not affected by these requirements.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

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 shall comply with the provisions of this Section.

2) The owner or operator of an existing facility that cannot install a closed-vent system and control device to comply with the provisions of this Subpart on the effective date that the facility becomes subject to the provisions of this Subpart shall prepare an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The controls must be installed as soon as possible, but the implementation schedule may allow up to ~~18~~30 months after the effective date that the facility becomes subject to this Subpart for installation and startup. All units that begin operation after December 21, 1990, must comply with the rules immediately (i.e., must have control devices installed and operating on startup of the affected unit); the 2-year implementation schedule does not apply to these units.

b) A control device involving vapor recovery (e.g., a condenser or adsorber) must be designed and operated to recover the organic vapors

vented to it with an efficiency of 95 weight percent or greater unless the total organic emission limits of Section 724.932(a)(1) for all affected process vents is attained at an efficiency less than 95 weight percent.

c) An enclosed combustion device (e.g., a vapor incinerator, boiler, or process heater) must be designed and operated to reduce the organic emissions vented to it by 95 weight percent or greater; to achieve a total organic compound concentration of 20 ppmv, expressed as the sum of the actual compounds and not in carbon equivalents, on a dry basis, corrected to ~~3~~three percent oxygen; or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760° C. If a boiler or process heater is used as the control device, then the vent stream must be introduced into the flame zone of the boiler or process heater.

d) Flares:

1) A flare must be designed for and operated with no visible emissions, as determined by the methods specified in subsection (e)(1), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

2) A flare must be operated with a flame present at all times, as determined by the methods specified in subsection (f)(2)(C) ~~below~~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) ~~below~~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) ~~below~~of this Section, less than 18.3 m/s (60 ft/s), except as provided in subsections (d)(4)(B) and (d)(4)(C) ~~below~~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) ~~below~~of this Section, equal to or greater than 18.3 m/s (60 ft/s) but

less than 122 m/s (400 ft/s) is allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1000 Btu/scf).

C) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) ~~below~~of this Section, less than the velocity, V, as determined by the method specified in subsection (e)(4) ~~below~~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) ~~below~~of this Section.

6) A flare used to comply with this Section must be steam-assisted, air-assisted, or nonassisted.

e) Compliance determination and equations.

1) Reference Method 22 in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111, must be used to determine the compliance of a flare with the visible emission provisions of this Subpart. The observation period is 2 hours and must be used according to Method 22.

2) The net heating value of the gas being combusted in a flare must be calculated using the following equation:

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

Where:

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

K = ~~1.74 E –7~~ 1.74×10^7 (1/ppm)(g mol/scm)(MJ/kcal) where standard temperature for (g mol/scm) 20° C.

S(Xi) means the sum of the values of X for each component i, from i = 1 to n.

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

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

3) The actual exit velocity of a flare must be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

4) The maximum allowed velocity in m/s, V_{max}, for a flare complying with subsection (d)(4)(C) must be determined by the following equation:

~~$\log(V) = (H_T + 28.8) / 31.7$~~

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

Where:

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

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

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

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

Where:

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

f) The owner or operator shall monitor and inspect each control device required to comply with this Section to ensure proper operation and maintenance of the control device by implementing the following requirements:

1) Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow indicator that provides a record of stream flow from each affected process vent to the control device at least once every hour. The flow indicator sensor must be installed in the vent stream at the nearest feasible point to the control device inlet but before the point at which the vent streams are combined.

2) Install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor control device operation as specified below:

A) For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device must have accuracy of ± 1 ~~percent~~% of the temperature being monitored in ° C or ± 0.5° 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 ± 1 ~~percent~~% of the temperature being monitored in ° C or ± 0.5° 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 ±1 ~~percent~~% of the temperature being monitored in ° C or ±0.5° C, whichever is greater. The temperature sensor must be installed at a location in the furnace downstream of the combustion zone.

E) For a boiler or process heater having a design heat input capacity greater than or equal to 44 MW, a monitoring device equipped with a continuous recorder to measure parameters that indicate good combustion operating practices are being used.

F) For a condenser, either:

i) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the condenser; or

ii) A temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature ~~at two locations and have~~with an accuracy of ±1 ~~percent~~% of the temperature being monitored in ° C or ±0.5° C, whichever is greater. ~~One~~The temperature sensor must be installed at a location in the exhaust vent stream from the condenser~~, and a second temperature sensor must be installed at a location in the coolant fluid~~ exit~~ing the condenser~~ (i.e., product side).

G) For a carbon adsorption system that regenerates the carbon bed directly in the control device such as a fixed-bed carbon adsorber, either:

i) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the carbon bed, or

ii) A monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle.

3) Inspect the readings from each monitoring device required by subsections (f)(1) and (f)(2) at least once each operating day to check control device operation and, if necessary, immediately implement the corrective measures necessary to ensure the control device operates in compliance with the requirements of this Section.

g) An owner or operator using a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon at a regular, predetermined time interval that is no longer than the carbon service life established as a requirement of Section 724.935(b)(4)(C)(vi).

h) An owner or operator using a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon on a regular basis by using one of the following procedures:

1) Monitor the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system on a regular schedule, and replace the existing carbon with fresh carbon immediately when carbon breakthrough is indicated. The monitoring frequency must be daily or at an interval no greater than 20 ~~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) ~~Closed vent systems.~~A closed-vent system must meet either of the following design requirements:

1) ~~C~~A closed-vent system~~s~~ must be designed ~~for and~~to operate~~d~~ with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background ~~and by visual inspections~~, as determined by the methods specified at Section 724.934(b)~~.~~, and by visual inspections; or

2) ~~Closed-vent systems must be monitored to determine compliance with this Section during the initial leak detection monitoring, which must be conducted by the date that the facility becomes subject to the provisions of this Section annually, and at other times as specified in the RCRA permit. For the annual leak detection monitoring after the initial leak detection monitoring, the owner or operator is not required to monitor those closed-vent system components that operate in vacuum service or those closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of metal pipe or a bolted and gasketed pipe flange).~~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.

~~3)~~ ~~Detectable emissions, as indicated by an instrument reading greater than 500 ppm and visual inspections, must be controlled as soon as practicable, but not later than 15 calendar days after the emission is detected.~~

~~4)~~ ~~A first attempt at repair must be made no later than 5 calendar days after the emission is detected..~~

l) The owner or operator shall monitor and inspect each closed-vent system required to comply with this Section to ensure proper operation and maintenance of the closed-vent system by implementing the following requirements:

1) Each closed-vent system that is used to comply with subsection (k)(1) of this Section shall be inspected and monitored in accordance with the following requirements:

A) An initial leak detection monitoring of the closed-vent system shall be conducted by the owner or operator on or before the date that the system becomes subject to this Section. The owner or operator shall monitor the closed-vent system components and connections using the procedures specified in Section 724.934(b) to demonstrate that the closed-vent system operates with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv of this Section background.

B) After initial leak detection monitoring required in subsection (l)(1)(A) of this Section, the owner or operator shall inspect and monitor the closed-vent system as follows:

i) Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) must be visually inspected at least once per year to check for defects that could result in air pollutant emissions. The owner or operator shall monitor a component or connection using the procedures specified in Section 724.934(b) to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted).

ii) Closed-vent system components or connections other than those specified in subsection (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 shall repair the defect or leak in accordance with the requirements of subsection (l)(3) of this Section.

D) The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in Section 724.935.

2) Each closed-vent system that is used to comply with subsection (k)(2) of this Section must be inspected and monitored in accordance with the following requirements:

A) The closed-vent system must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork or piping or loose connections.

B) The owner or operator shall perform an initial inspection of the closed-vent system on or before the date that the system becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year.

C) In the event that a defect or leak is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (l)(3) of this Section.

D) The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in Section 724.935.

3) The owner or operator shall repair all detected defects as follows:

A) Detectable emissions, as indicated by visual inspection or by an instrument reading greater than 500 ppmv above background, must be controlled as soon as practicable, but not later than 15 calendar days after the emission is

detected, except as provided for in subsection (l)(3)(C) of this Section.

B) A first attempt at repair must be made no later than five calendar days after the emission is detected.

C) Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment must be completed by the end of the next process unit shutdown.

D) The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in Section 724.935.

~~l~~m) ~~C~~A closed-vent system~~s~~ ~~and~~or control device~~s~~ used to comply with provisions of this Subpart must be operated at all times when emissions may be vented to ~~them~~it.

~~m~~n) The owner or operator using a carbon adsorption system to control air pollutant emissions shall document that all carbon removed that is a hazardous waste and that is removed from ~~a carbon adsorption system to comply with subsections (g) and (h) above~~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 ~~is permitted under 724.Subpart X,~~meets one of the following:

A) The owner or operator of the unit has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of 724.Subpart X; or

B) The unit is equipped with and operating air emission controls in accordance with the applicable requirements of 724.Subparts AA and CC or 35 Ill. Adm. Code 725.Subparts AA and CC; or

C) The unit is equipped with and operating air emission controls in accordance with a national emission standard

for hazardous air pollutants under 40 CFR 61 or 40 CFR 63.

2) It is incinerated ~~by a process that is permitted under 724.Subpart O, or~~in a hazardous waste incinerator for which the owner or operator has done either of the following:

A) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of 724.Subpart O, or

B) The owner or operator has certified compliance in accordance with the interim status requirements of 35 Ill. Adm. Code 725.Subpart O.

3) It is burned in a boiler or industrial furnace ~~that is permitted under 724.Subpart H.~~for which the owner or operator has done either of the following:

A) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of 35 Ill. Adm. Code 726.Subpart H, or

B) The owner or operator has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of 35 Ill. Adm. Code 726.Subpart H.

o) Any components of a closed-vent system that are designated, as described in Section 724.935(c)(9), as unsafe to monitor are exempt from the requirements of subsection (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 (l)(1)(B)(ii) as frequently as practicable during safe-to-monitor times.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 724.934 Test methods and procedures

a) Each owner or operator subject to the provisions of this Subpart shall comply with the test methods and procedures requirements provided in this Section

b) When a closed-vent system is tested for compliance with no detectable emissions, as required in Section 724.933(~~k~~l), the test must comply with the following requirements:

1) Monitoring must comply with Reference Method 21 in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111.

2) The detection instrument must meet the performance criteria of Reference Method 21.

3) The instrument must be calibrated before use on each day of its use by the procedures specified in Reference Method 21.

4) Calibration gases must be:

A) Zero air (less than 10 ppm of hydrocarbon in air).

B) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.

5) The background level must be determined as set forth in Reference Method 21.

6) The instrument probe must be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

7) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

c) Performance tests to determine compliance with Section 724.932(a) and with the total organic compound concentration limit of Section 724.933(c) must comply with the following:

1) Performance tests to determine total organic compound concentrations and mass flow rates entering and exiting control devices must be conducted and data reduced in accordance with the following reference methods and calculation procedures:

A) Method 2 in 40 CFR 60 for velocity and volumetric flow rate.

B) Method 18 in 40 CFR 60 for organic content.

C) Each performance test must consist of three separate runs, each run conducted for at least 1 hour under the conditions that exist when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. For the purpose of determining total organic compound concentrations and mass flow rates, the average of results of all runs applies. The average must be computed on a time-weighed basis.

D) Total organic mass flow rates must be determined by the following equation:

~~F = K * Q * SUM(Ci * MWi)~~

~~Where:~~

~~F is the total organic mass flow rate, kg/h.~~

~~K = 4.16 E -8, conversion factor for molar volume, kg-mol/cubic m, at 293 K and 760 mm Hg.~~

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

~~SUM(Xi) means the sum of the values of X for each component i, from i = 1 to n.~~

~~n = number of organic compounds in the vent gas.~~

~~Ci is the organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Method 18 in 40 CFR 60.~~

~~MWi is the molecular weight of organic compound i in the vent gas, kg/kg-mol.~~

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

Where:

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

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

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

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

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

0.0416 = The conversion factor for molar volume, kg-mol/m^3, 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 ~~*~~× ~~HOURS~~

Where:

A is total organic emission rate, kg/y.

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

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

F) Total organic emissions from all affected process vents at the facility must be determined by summing the hourly total organic mass emissions rates (F as determined in subsection (c)(1)(D) of this Section) and by summing the annual total organic mass emission rates (A as determined in subsection (c)(1)(E) of this Section) for all affected process vents at the facility.

2) The owner or operator shall record such process information as is necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown and malfunction do not constitute representative conditions for the purpose of a performance test.

3) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

A) Sampling ports adequate for the test methods specified in subsection (c)(1) of this Section.

B) Safe sampling platform(s).

C) Safe access to sampling platform(s).

D) Utilities for sampling and testing equipment.

4) For the purpose of making compliance determinations, the time-weighted average of the results of the three runs must apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions or other circumstances beyond the owner or operator's control, compliance may, upon

the Agency's approval, be determined using the average of the results of the two other runs.

d) To show that a process vent associated with a hazardous waste distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation is not subject to the requirements of this Subpart, the owner or operator shall make an initial determination that the time-weighted, annual average total organic concentration of the waste managed by the waste management unit is less than 10 ppmw using one of the following two methods:

1) Direct measurement of the organic concentration of the waste using the following procedures:

A) The owner or operator shall take a minimum of four grab samples of waste for each wastestream managed in the affected unit under process conditions expected to cause the maximum waste organic concentration.

B) For waste generated onsite, the grab samples must be collected at a point before the waste is exposed to the atmosphere such as in an enclosed pipe or other closed system that is used to transfer the waste after generation to the first affected distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation. For waste generated offsite, the grab samples must be collected at the inlet to the first waste management unit that receives the waste provided the waste has been transferred to the facility in a closed system such as a tank truck and the waste is not diluted or mixed with other waste.

C) Each sample must be analyzed and the total organic concentration of the sample must be computed using Method 9060 or 8240 of SW-846, (incorporated by reference under 35 Ill. Adm. Code 720.111.

D) The arithmetic mean of the results of the analyses of the four samples apply for each wastestream managed in the unit in determining the time-weighted, annual average total organic concentration of the waste. The time-weighted average is to be calculated using the annual quantity of each waste stream processed and the mean organic concentration of each wastestream managed in the unit.

2) Using knowledge of the waste to determine that its total organic concentration is less than 10 ppmw. Documentation of the waste determination is required. Examples of documentation that must be used to support a determination under this subsection (d)(2) include:

A) Production process information documenting that no organic compounds are used~~.~~;

B) Information that the waste is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to generate a wastestream having a total organic content less than 10 ppmw~~,~~; or

C) Prior speciation analysis results on the same wastestream where it is also documented that no process changes have occurred since that analysis that could affect the waste total organic concentration.

e) The determination that a distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations ~~which~~ that manages hazardous wastes ~~with~~ that have time-weighted, annual average total organic concentrations less than 10 ppmw must be made as follows:

1) By the effective date that the facility becomes subject to the provisions of this Subpart or by the date when the waste is first managed in a waste management unit, whichever is later; and

2) For continuously generated waste, annually; or

3) Whenever there is a change in the waste being managed or a change in the process that generates or treats the waste.

f) When an owner or operator and the Agency do not agree on whether a distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation manages a hazardous waste with organic concentrations of at least 10 ppmw based on knowledge of the waste, the procedures in Method 8240 in SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, must be used to resolve the dispute.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 724.935 Recordkeeping requirements

a) Compliance Required.

1) Each owner or operator subject to the provisions of this Subpart shall comply with the recordkeeping requirements of this Section.

2) An owner or operator of more than one hazardous waste management unit subject to the provisions of this Subpart may comply with the recordkeeping requirements for these hazardous waste management units in one recordkeeping system if the system identifies each record by each hazardous waste management unit.

b) Owners and operators shall record the following information in the facility operating record:

1) For 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.

2) Up-to-date documentation of compliance with the process vent standards in Section 724.932, including:

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:

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:

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 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 (incorporated by reference in 35 Ill. Adm. Code 720.111) 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 (vii)~~, below~~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:

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 (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)~~, above~~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)~~, above~~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)~~, above~~of this Section.

D) For a boiler or process heater, any period when:

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)~~, above~~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)~~, above~~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)~~,~~ ~~above~~of this Section.

G) For a condenser that complies with Section 724.933(f)(2)(F)(ii), any period when:

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)~~,~~ ~~above~~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)~~,~~ ~~above~~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)~~,~~ ~~above~~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)~~,~~ ~~above~~of this Section.

5) Explanation for each period recorded under subsection (c)(4)~~,~~ ~~above,~~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:

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 724.933(o) shall 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 Method 21 of 40 CFR 60, appendix A, 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 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)(~~8~~10)~~, above,~~ of this Section ~~need~~must be kept ~~only~~at least 3 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 shall 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 21 Ill. Reg. _____, effective _____)

SUBPART BB: AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

Section 724.950 Applicability

a) The regulations in this Subpart apply to owners and operators of facilities that treat, store, or dispose of hazardous wastes (except as provided in Section 724.101).

b) Except as provided in Section 724.964(k), this Subpart applies to equipment that contains or contacts hazardous wastes with organic concentrations of at least 10 ~~percent~~% by weight that are managed in one of the following:

1) ~~U~~A unit~~s~~ that ~~are~~is subject to the RCRA permitting requirements of 35 Ill. Adm. Code 702, 703, and 705, ~~or~~

2) ~~H~~A unit (including a hazardous waste recycling unit~~s~~) that ~~are~~is not exempt from permitting under the provisions of 35 Ill. Adm. Code 722.134(a) (i.e., a hazardous waste recycling unit that is not a "90-day" tank or container) and that is located ~~on~~at a hazardous waste management facilit~~ies~~y otherwise subject to the permitting requirements of 35 Ill. Adm. Code 702, 703, and 705~~.~~, or

3) A unit that is exempt from permitting under the provisions of 35 Ill. Adm. Code 722.134(a) (i.e., a "90-day" tank or container).

c) If the owner or operator of equipment subject to the requirements of Sections 724.952 through 724.965 has received a RCRA permit prior to December 21, 1990, the requirements of Sections 724.952 through 724.965 must be incorporated when the permit is reissued under 35 Ill. Adm. Code 705.201 or reviewed under 35 Ill. Adm. Code 702.161.

d) Each piece of equipment to which this Subpart applies must be marked in such a manner that it can be distinguished readily from other pieces of equipment.

e) Equipment that is in vacuum service is excluded from the requirements of Sections 724.952 to 724.960, if it is identified as required in Section 724.964(g)(5).

f) Equipment that contains or contacts hazardous waste with an organic concentration of at least 10% by weight for a period of less than 300 hours per calendar year is excluded from the requirements of Sections 264.952 through 264.960 if it is identified as required in Section 724.964(g)(6).

BOARD NOTE: The requirements of Sections 724.952 through 724.965 apply to equipment associated with hazardous waste recycling units previously exempt under 35 Ill. Adm. Code 721.106(c)(1). Other exemptions under 35 Ill. Adm. Code 721.104~~, 722.134~~ and 724.101(g) are not affected by these requirements.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 724.955 Standards: Sampling Connecting Systems

a) Each sampling connection system must be equipped with a closed-purge, closed-loop, ~~system~~ 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, ~~system~~ or closed-vent system as required in subsection (a) must meet one of the following requirements:

1) Return the purged ~~hazardous waste stream~~process fluid directly to the ~~hazardous waste management~~ process line ~~with no detectable emissions to atmosphere~~; ~~or~~

2) Collect and recycle the purged ~~hazardous waste stream with no detectable emissions to atmosphere~~process fluid; or

3) Be designed and operated to capture and transport all the purged ~~hazardous wastestream~~process fluid to a waste management unit that complies with the applicable requirements of Sections 724.984 through 724.986 or a control device that complies with the requirements of Section 724.960.

c) In-situ sampling systems and sampling systems without purges are exempt from the requirements of subsections (a) and (b) of this Section.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 724.958 Standards: Pumps, Valves, Pressure Relief Devices 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 5 days by the method specified in Section 724.963(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 724.959.

2) The first attempt at repair must be made no later than 5 calendar days after each leak is detected.

d) First attempts at repair include, but are not limited to, the best practices described under Section 724.957(e).

e) Any connector that is inaccessible or is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined) is exempt from the monitoring requirements of subsection (a) of this Section and from the recordkeeping requirements of Section 724.964.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 724.964 Recordkeeping Requirements

a) Lumping Units

1) Each owner or operator subject to the provisions of this Subpart shall comply with the recordkeeping requirements of this Section.

2) An owner or operator of more than one hazardous waste management unit subject to the provisions of this Subpart may comply with the recordkeeping requirements for these hazardous waste management units in one recordkeeping system if the system identifies each record by each hazardous waste management unit.

b) Owners and operators shall record the following information in the facility operating record:

1) For each piece of equipment to which this Subpart applies:

A) Equipment identification number and hazardous waste management unit identification.

B) Approximate locations within the facility (e.g., identify the hazardous waste management unit on a facility plot plan).

C) Type of equipment (e.g., a pump or pipeline valve).

D) Percent-by-weight total organics in the hazardous wastestream at the equipment.

E) Hazardous waste state at the equipment (e.g., gas-vapor or liquid).

F) Method of compliance with the standard (e.g., "monthly leak detection and repair" or "equipped with dual mechanical seals").

2) ~~f~~For facilities than comply with the provisions of Section 724.933(a)(2), an implementation schedule as specified in that Section.

3) Where an owner or operator chooses to use test data to demonstrate the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan as specified in Section 724.935(b)(3).

4) Documentation of compliance with Section 724.960, including the detailed design documentation or performance test results specified in Section 724.935(b)(4).

c) When each leak is detected as specified in Sections 724.952, 724.953, 724.957 or 724.958, the following requirements apply:

1) A weatherproof and readily visible identification, marked with the equipment identification number, the date evidence of a potential leak was found in accordance with Section 724.958(a), and the date the leak was detected, must be attached to the leaking equipment.

2) The identification on equipment except on a valve, may be removed after it has been repaired.

3) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in Section 724.957(c) and no leak has been detected during those 2 months.

d) When each leak is detected as specified in Sections 724.952, 724.953, 724.957 or 724.958, the following information must be recorded in an inspection log and must be kept in the facility operating record:

1) The instrument and operator identification numbers and the equipment identification number.

2) The date evidence of a potential leak was found in accordance with Section 724.958(a).

3) The date the leak was detected and the dates of each attempt to repair the leak.

4) Repair methods applied in each attempt to repair the leak.

5) "Above 10,000", if the maximum instrument reading measured by the methods specified in Section 724.963(b) after each repair attempt is equal to or greater than 10,000 ppm.

6) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

7) Documentation supporting the delay of repair of a valve in compliance with Section 724.959(c).

8) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a hazardous waste management unit shutdown.

9) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days.

10) The date of successful repair of the leak.

e) Design documentation and monitoring, operating and inspection information for each closed-vent system and control device required to comply with the provisions of Section 724.960 must be recorded and kept up-to-date in the facility operating record as specified in Section 724.935(c)(1) and (c)(2), and monitoring, operating and inspection information in Section 724.935(c)(3) through (c)(8).

f) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, the Agency shall specify the appropriate recordkeeping requirements, indicating proper operation and maintenance of the control device, in the RCRA permit.

g) The following information pertaining to all equipment subject to the requirements in Sections 724.952 through 724.960 must be recorded in a log that is kept in the facility operating record:

1) A list of identification numbers for equipment (except welded fittings) subject to the requirements of this Subpart.

2) List of Equipment

A) A list of identification numbers for equipment that the owner or operator elects to designate for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, under the provisions of Sections 724.952(e), 724.953(i) and 724.957(f).

B) The designation of this equipment as subject to the requirements of Section~~s~~ 724.952(e), 724.953(i) or 724.957(f) must be signed by the owner or operator.

3) A list of equipment identification numbers for pressure relief devices required to comply with Section 724.954(a).

4) Compliance tests.

A) The dates of each compliance test required in Sections 724.952(e), 724.953(i), 724.954 and 724.957(f).

B) The background level measured during each compliance test.

C) The maximum instrument reading measured at the equipment during each compliance test.

5) A list of identification numbers for equipment in vacuum service.

6) Identification, either by list or location (area or group), of equipment that contains or contacts hazardous waste with an organic concentration of at least 10% by weight for a period of less than 300 hours per year.

h) The following information pertaining to all valves subject to the requirements of Section 724.957(g) and (h) must be recorded in a log that is kept in the facility operating record:

1) A list of identification numbers for valves that are designated as unsafe to monitor, an explanation for each valve stating why the valve is unsafe to monitor, and the plan for monitoring each valve.

2) A list of identification numbers for valves that are designated as difficult to monitor, an explanation for each valve stating why the valve is difficult to monitor, and the planned schedule for monitoring each valve.

i) The following information must be recorded in the facility operating record for valves complying with Section 724.962:

1) A schedule of monitoring.

2) The percent of valves found leaking during each monitoring period.

j) The following information must be recorded in a log that is kept in the facility operating record:

1) Criteria required in Sections 724.952(d)(5)(B) and 724.953(e)(2) and an explanation of the design criteria.

2) Any changes to these criteria and the reasons for the changes.

k) The following information must be recorded in a log that is kept in the facility operating record for use in determining exemptions as provided in Section 724.950 and other specific Subparts:

1) An analysis determining the design capacity of the hazardous waste management unit.

2) A statement listing the hazardous waste influent to and effluent from each hazardous waste management unit subject to the requirements in Sections 724.960 and an analysis determining whether these hazardous wastes are heavy liquids.

3) An up-to-date analysis and the supporting information and data used to determine whether or not equipment is subject to the requirements in Sections 724.952 through 724.960. The record must include supporting documentation as required by Section 724.963(d)(3) when application of the knowledge of the nature of the hazardous wastestream or the process by which it was produced is used. If the owner or operator takes any action (e.g., changing the process that produced the waste) that could result in an increase in the total organic content of the waste contained in or contacted by equipment determined not to be subject to the requirements in Sections 724.952 through 724.960, then a new determination is required.

l) Records of the equipment leak information required by subsection (d) of this Section and the operating information required by subsection (e) of this Section need be kept only 3 years.

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

(Source: Amended at 21 Ill. Reg. _____, effective _____)

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

Section 724.980 Applicability

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

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

b) The requirements of this Subpart do not apply to the following waste management units at the facility:

1) A waste management unit that holds hazardous waste placed in the unit before October 6, 1996, and in which no hazardous waste is added to the unit on or after this date.

2) A container that has a design capacity less than or equal to 0.1 m^3 (3.5 ft^3 or 26.4 gal).

3) A tank in which an owner or operator has stopped adding hazardous waste and the owner or operator has begun implementing or completed closure pursuant to an approved closure plan.

4) A surface impoundment in which an owner or operator has stopped adding hazardous waste (except to implement an approved closure plan) and the owner or operator has begun implementing or completed closure pursuant to an approved closure plan.

5) A waste management unit that is used solely for on-site treatment or storage of hazardous waste that is generated as the result of implementing remedial activities required pursuant to the Act or Board regulations or under the corrective action authorities of RCRA sections 3004(u), 3004(v) or 3008(h); CERCLA authorities; or similar federal or state authorities.

6) A waste management unit that is used solely for the management of radioactive mixed waste in accordance with all applicable regulations under the authority of the Atomic Energy Act (42 U.S.C. 2011 et seq.) and the Nuclear Waste Policy Act.

7) A hazardous waste management unit that the owner or operator certifies is equipped with and operating air emission controls in accordance with the requirements of an applicable federal Clean Air Act regulation codified under 40 CFR 60, 61, or 63. For the purpose of complying with this subsection (b)(7), a tank for which the air emission control includes an enclosure, as opposed to a cover, must be in compliance with the enclosure and control device requirements of Section 724.984(i), except as provided in Section 724.982(c)(5).

8) A tank that has a process vent, as defined in 35 Ill. Adm. Code 724.931.

c) For the owner and operator of a facility subject to this Subpart and whothat received a final RCRA permit prior to October 6, 1996, the requirements of this Subpart shall be incorporated into the permit when the permit is reissued, renewed, or modified in accordance with the requirements of 35 Ill. Adm. Code 703 and 705. Until such date when

the owner and operator receives a final permit incorporating the requirements of this Subpart, the owner and operator is subject to the requirements of 35 Ill. Adm. Code 725.Subpart CC.

d) The requirements of this Subpart, except for the recordkeeping requirements specified in Section 724.989(i), are stayed for a tank or container used for the management of hazardous waste generated by organic peroxide manufacturing and its associated laboratory operations, when the owner or operator of the unit meets all of the following conditions:

1) The owner or operator identifies that the tank or container receives hazardous waste generated by an organic peroxide manufacturing process producing more than one functional family of organic peroxides or multiple organic peroxides within one functional family, that one or more of these organic peroxides could potentially undergo self-accelerating thermal decomposition at or below ambient temperatures, and that organic peroxides are the predominant products manufactured by the process. For the purposes of this subsection, "organic peroxide" means an organic compound that contains the bivalent -O-O- structure and which may be considered to be a ~~sturctural~~ structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

2) The owner or operator prepares documentation, in accordance with Section 724.989(i), explaining why an undue safety hazard would be created if air emission controls specified in Sections 724.984 through 724.987 are installed and operated on the tanks and containers used at the facility to manage the hazardous waste generated by the organic peroxide manufacturing process or processes meeting the conditions of subsection (d)(1) ~~above~~of this Section.

3) The owner or operator notifies the Agency in writing that hazardous waste generated by an organic peroxide manufacturing process or processes meeting the conditions of subsection (d)(1) ~~above~~of this Section are managed at the facility in tanks or containers meeting the conditions of subsection (d)(2) ~~above~~of this Section. The notification must state the name and address of the facility and be signed and dated by an authorized representative of the facility owner or operator.

(Source: Amended at 21 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.

b) The owner or operator shall control air emissions from each waste management unit in accordance with standards specified in Section 724.984 through 724.987, as applicable to the waste management unit, except as provided for in subsection (c) ~~below~~of this Section.

c) A ~~waste management unit~~tank, surface impoundment, or container is exempt~~ed~~ from standards specified in Sections 724.984 through 724.987, as applicable, provided that all hazardous waste placed in the waste management unit is ~~determined by the owner or operator to meet either~~one of the following ~~conditions~~:

1) ~~The average VO concentration of the~~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 ~~is~~of less than ~~100~~500 parts per million by weight (ppmw). The average VO concentration shall be determined by the procedures specified in Section 724.983(a). The owner or operator shall 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) ~~T~~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_t) 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 shall 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 ~~50~~100 ppmw. The organic reduction efficiency for the process and the average VO concentration of the hazardous waste at the point of waste treatment shall 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 ~~such~~ 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 ~~shall~~ 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 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 shall be determined ~~in accordance with~~using the procedures specified in Section 724.983(b).

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 shall 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)~~ ~~All of the materials entering the process are hazardous wastes.~~

~~i~~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 ~~which~~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 40 CFR 63, subpart RR, "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 ~~100~~500 ppmw, whichever value is lower. The average VO concentration of each individual hazardous waste stream at the point of waste origination shall 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 shall 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% 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 shall be determined using the procedures specified in Section 724.983(b) and Section 724.983(a), respectively.

~~F~~G) A hazardous waste incinerator for which either of the ~~owner or operator has either~~following conditions is true:

i) ~~B~~The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705~~, and designs and operates the unit in accordance with~~ that implements the requirements of ~~724~~35 Ill. Adm. Code 726.Subpart ~~O~~H; or

ii) ~~H~~The owner or operator has ~~certified compliance~~designed and operates the incinerator in accordance with the interim status requirements of 35 Ill. Adm. Code 725.Subpart O.

~~G~~H) A boiler or industrial furnace for which either of the ~~owner or operator has either~~following conditions is true:

i) ~~B~~The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705~~, and designs and operates the unit in accordance with~~ that implements the requirements of 35 Ill. Adm. Code 726.Subpart H; or

ii) ~~H~~The owner or operator has ~~certified compliance~~designed and operates the boiler or industrial furnace in accordance with the interim status requirements of 35 Ill. Adm. Code 726.Subpart H.

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 shall account for VO concentrations determined to be below the limit of detection of the analytical method by using the following VO concentration:

i) If Method 25D in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, is used for the analysis, one-half the blank value determined in the method.

ii) If any other analytical method is used, one-half the limit of detection established for the method.

3) A tank 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 35 Ill. Adm. Code 728.Table T; or

B) It has been treated by the treatment technology established by USEPA for the waste 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).

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 40 CFR 61, subpart FF, "National Emission Standards for Benzene Waste Operations", incorporated by reference in 35 Ill. Adm. Code 720.111, 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 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical or electrical equipment; or to direct air flow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to "Procedure T-- Criteria for and Verification of a Permanent or Temporary Total Enclosure" annually.

~~d) When a process is used for the purpose of treating a hazardous waste to meet one of the sets of conditions specified in subsections (c)(2)(A) through (c)(2)(E) above, each material removed from or exiting the process that is not a hazardous waste but which has an average VO concentration equal to or greater than 100 ppmw shall be managed in a waste management unit in accordance with the requirements of subsection (b) above.~~

~~e~~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 shall 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 shall 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 shall 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.

~~2~~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.

~~3~~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 (~~e~~d)(1) ~~above~~of this Section shall be used to establish compliance with the requirements of this Subpart.

~~4~~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 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 shall 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 ~~100~~500 ppmw shall constitute noncompliance with this Subpart, except in a case as provided for in subsection (~~e~~d)(~~4~~5)(C) ~~below~~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 ~~100~~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 ~~100~~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 shall 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.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 724.983 Waste Determination Procedures

a) Waste determination procedure for average volatile organic (VO) concentration of a hazardous waste at the point of waste origination.

1) An owner or operator shall determine the average VO concentration at the point of waste origination for each hazardous waste placed in a waste management unit~~s~~ exempted under the provisions of Section 724.982(c)(1) from using air emission controls in accordance with standards specified in Section 724.984 through Section 724.987, as applicable to the waste management unit.

2) The average VO concentration of a hazardous waste at the point of waste origination ~~for a hazardous waste shall~~may be determined in accordance with the procedures specified in 35 Ill. Adm. Code 725.984(a)(2) through (a)(~~6~~4).

b) Waste determination procedures for treated hazardous waste.

1) An owner or operator shall perform the applicable waste determination~~s~~ for each treated hazardous waste placed in a waste management unit~~s~~ exempted under the provisions of Section 724.982(c)(2) from using air emission controls in accordance with standards specified in Section~~s~~ 724.984 through 724.987, as applicable to the waste management unit.

2) The waste determination for a treated hazardous waste shall be performed in accordance with the procedures specified in 35 Ill. Adm. Code 725.984(b)(2) through (b)(~~10~~9), as applicable to the treated hazardous waste.

c) Procedure to determine the maximum organic vapor pressure of a hazardous waste in a tank.

1) An owner or operator shall determine the maximum organic vapor pressure for each hazardous waste placed in a tank~~s~~ using ~~air emission~~Tank Level 1 controls in accordance with standards specified in Section 724.984(c).

2) The maximum organic vapor pressure of the hazardous waste ~~shall~~may be determined in accordance with the procedures specified in 35 Ill. Adm. Code 725.984(c)(2) through (c)(4).

d) The procedure for determining no detectable organic emissions for the purpose of complying with this Subpart must be conducted in accordance with the procedures specified in 40 CFR 265.984(d).

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 724.984 Standards: Tanks

~~a) This Section applies to owners and operators of tanks subject to this Subpart into which any hazardous waste is placed, except for the following tanks:~~

~~1) A tank in which all hazardous waste entering the tank meets the conditions specified in Section 724.982(c), or~~

~~2) A tank used for biological treatment of hazardous waste in accordance with the requirements of Section 724.982(c)(2)(D).~~

~~b) The owner or operator shall place the hazardous waste into one of the following tanks:~~

~~1) A tank equipped with a cover (e.g., a fixed roof) that is vented through a closed-vent system to a control device in accordance with the requirements specified in subsection (d) below;~~

~~2) A tank equipped with a fixed roof and internal floating roof in accordance with the requirements of Section 724.991;~~

~~3) A tank equipped with an external floating roof in accordance with the requirements of Section 724.991; or~~

~~4) A pressure tank that is designed to operate as a closed system such that the tank operates with no detectable organic emissions~~

at all times that hazardous waste is in the tank except as provided for in subsection (g) below.

c) As an alternative to complying with subsection (b) above, an owner or operator may place hazardous waste in a tank equipped with a cover (e.g., a fixed roof) meeting the requirements specified in subsection (d)(1) below when the hazardous waste is determined to meet all of the following conditions:

1) The hazardous waste is not mixed, stirred, agitated, or circulated within the tank by the owner or operator using a process that results in splashing, frothing, or visible turbulent flow on the waste surface during normal process operations;

2) The hazardous waste in the tank is not heated by the owner or operator except during conditions requiring that the waste be heated to prevent the waste from freezing or to maintain adequate waste flow conditions for continuing normal process operations;

3) The hazardous waste in the tank is not treated by the owner or operator using a waste stabilization process or a process that produces an exothermic reaction; and

4) The maximum organic vapor pressure of the hazardous waste in the tank, as determined using the procedure specified in Section 724.983(c), is less than the following applicable value:

A) If the tank design capacity is equal to or greater than 151 m^3 (5333 ft^3 or 39,887 gal), then the maximum organic vapor pressure shall be less than 5.2 kPa (0.75 psia or 39 mm Hg);

B) If the tank design capacity is equal to or greater than 75 m^3 (2649 ft^3 or 19,810 gal) but less than 151 m^3 (5333 ft^3 or 39,887 gal), then the maximum organic vapor pressure shall be less than 27.6 kPa (4.0 psia or 207 mm Hg); or

C) If the tank design capacity is less than 75 m^3 (2649 ft^3 or 19,810 gal), then the maximum organic vapor pressure shall be less than 76.6 kPa (11.1 psia or 574 mm Hg).

d) To comply with subsection (b)(1) above, the owner or operator shall design, install, operate, and maintain a cover that vents the organic vapors emitted from hazardous waste in the tank through a closed-vent system connected to a control device.

1) The cover shall be designed and operated to meet the following requirements:

A) The cover and all cover openings (e.g., access hatches, sampling ports, and gauge wells) shall be designed to operate with no detectable organic emissions when all cover openings are secured in a closed, sealed position; and

B) Each cover opening shall be secured in a closed, sealed position (e.g., covered by a gasketed lid or cap) at all times that hazardous waste is in the tank except as provided for in subsection (f) below.

2) The closed-vent system and control device shall be designed and operated in accordance with the requirements of Section 724.987.

e) The owner and operator shall install, operate, and maintain enclosed pipes or other closed systems to:

BOARD NOTE: U.S. EPA considers a drain system that meets the requirements of 40 CFR 61.346(a)(1) or (b)(1) through (b)(3) to be a "closed system". The Board intends that this meaning be included in the use of that term for the purposes of this Subpart.

1) Transfer all hazardous waste to the tank from another tank, surface impoundment, or container subject to this Subpart except for those hazardous wastes that meet the conditions specified in Section 724.982(c); and

2) Transfer all hazardous waste from the tank to another tank, surface impoundment, or container subject to this Subpart except for those hazardous wastes that meet the conditions specified in Section 724.982(c).

f) Each cover opening shall be secured in a closed, sealed position (e.g., covered by a gasketed lid) at all times that hazardous waste is in the tank except when it is necessary to use the cover opening to:

1) Add, remove, inspect, or sample the material in the tank;

2) Inspect, maintain, repair, or replace equipment located inside the tank; or

~~3) Vent gases or vapors from the tank to a closed-vent system connected to a control device that is designed and operated in accordance with the requirements of Section 724.987.~~

~~g) One or more safety devices that vent directly to the atmosphere may be used on the tank, cover, closed-vent system, or control device provided each safety device meets all of the following conditions:~~

~~1) The safety device is not used for planned or routine venting of organic vapors from the tank or closed-vent system connected to a control device; and~~

~~2) The safety device remains in a closed, sealed position at all times, except when an unplanned event requires that the device open for the purpose of preventing physical damage or permanent deformation of the tank, cover, closed-vent system, or control device in accordance with good engineering and safety practices for handling flammable, combustible, explosive, or other hazardous materials. An example of an unplanned event is a sudden power outage.~~

a) The provisions of this Section apply to the control of air pollutant emissions from tanks for which Section 724.982(b) references the use of this Section for such air emission control.

b) The owner or operator shall control air pollutant emissions from each tank subject to this Section in accordance with the following requirements, as applicable:

1) For a tank that manages hazardous waste that meets all of the conditions specified in subsections (b)(1)(A) through (b)(1)(C) of this Section, the owner or operator shall control air pollutant emissions from the tank in accordance with the Tank Level 1 controls specified in subsection (c) of this Section or the Tank Level 2 controls specified in subsection (d) of this Section.

A) The hazardous waste in the tank has a maximum organic vapor pressure that is less than the maximum organic vapor pressure limit for the tank's design capacity category as follows:

i) For a tank design capacity equal to or greater than 151 m^3 (39,900 gal), the maximum organic vapor pressure limit for the tank is 5.2 kPa (0.75 psig).

ii) For a tank design capacity equal to or greater than 75 m^3 (19,800 gal) but less than 151 m^3 (39,900 gal), the maximum organic vapor pressure limit for the tank is 27.6 kPa (4.00 psig).

iii) For a tank design capacity less than 75 m^3 (19,800 gal), the maximum organic vapor pressure limit for the tank is 76.6 kPa (11.1 psig).

B) The hazardous waste in the tank is not heated by the owner or operator to a temperature that is greater than the temperature at which the maximum organic vapor pressure of the hazardous waste is determined for the purpose of complying with subsection (b)(1)(A) of this Section.

C) The hazardous waste in the tank is not treated by the owner or operator using a waste stabilization process, as defined in 35 Ill. Adm. Code 725.981.

2) For a tank that manages hazardous waste that does not meet all of the conditions specified in subsections (b)(1)(A) through (b)(1)(C) of this Section, the owner or operator shall control air pollutant emissions from the tank by using Tank Level 2 controls in accordance with the requirements of subsection (d) of this Section. Examples of tanks required to use Tank Level 2 controls include a tank used for a waste stabilization process and a tank for which the hazardous waste in the tank has a maximum organic vapor pressure that is equal to or greater than the maximum organic vapor pressure limit for the tank's design capacity category as specified in subsection (b)(1)(A) of this Section.

c) Owners and operators controlling air pollutant emissions from a tank using Tank Level 1 controls must meet the requirements specified in subsections (c)(1) through (c)(4) of this Section:

1) The owner or operator shall determine the maximum organic vapor pressure for a hazardous waste to be managed in the tank using Tank Level 1 controls before the first time the hazardous waste is placed in the tank. The maximum organic vapor pressure must be determined using the procedures specified in Section 724.983(c). Thereafter, the owner or operator shall perform a new determination whenever changes to the hazardous waste managed in the tank could potentially cause the maximum

organic vapor pressure to increase to a level that is equal to or greater than the maximum organic vapor pressure limit for the tank design capacity category specified in subsection (b)(1)(A) of this Section, as applicable to the tank.

2) The tank must be equipped with a fixed roof designed to meet the following specifications:

A) The fixed roof and its closure devices must be designed to form a continuous barrier over the entire surface area of the hazardous waste in the tank. The fixed roof may be a separate cover installed on the tank (e.g., a removable cover mounted on an open-top tank) or may be an integral part of the tank structural design (e.g., a horizontal cylindrical tank equipped with a hatch).

B) The fixed roof must be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between roof Section joints or between the interface of the roof edge and the tank wall.

C) Each opening in the fixed roof must be either:

i) Equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device; or

ii) Connected by a closed-vent system that is vented to a control device. The control device must remove or destroy organics in the vent stream, and it must be operating whenever hazardous waste is managed in the tank.

D) The fixed roof and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices must include the following: the organic vapor permeability; the effects of any contact with the hazardous waste or its

vapors managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.

3) Whenever a hazardous waste is in the tank, the fixed roof must be installed with each closure device secured in the closed position, except as follows:

A) Opening of closure devices or removal of the fixed roof is allowed at the following times:

i) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

ii) To remove accumulated sludge or other residues from the bottom of the tank.

B) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the tank internal pressure in accordance with the tank design specifications. The device must be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens must be established such that the device remains in the closed position whenever the tank internal pressure is within the internal pressure operating range determined by the owner or operator based on the tank manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the tank internal pressure exceeds the internal

pressure operating range for the tank as a result of loading operations or diurnal ambient temperature fluctuations.

C) Opening of a safety device, as defined in 35 Ill. Adm. Code 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.

4) The owner or operator shall inspect the air emission control equipment in accordance with the following requirements.

A) The fixed roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

B) The owner or operator shall perform an initial inspection of the fixed roof and its closure devices on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except under the special conditions provided for in subsection (l) of this Section.

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

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

d) Owners and operators controlling air pollutant emissions from a tank using Tank Level 2 controls must use one of the following tanks:

1) A fixed-roof tank equipped with an internal floating roof in accordance with the requirements specified in subsection (e) of this Section;

2) A tank equipped with an external floating roof in accordance with the requirements specified in subsection (f) of this Section;

3) A tank vented through a closed-vent system to a control device in accordance with the requirements specified in subsection (g) of this Section;

4) A pressure tank designed and operated in accordance with the requirements specified in subsection (h) of this Section; or

5) A tank located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device in accordance with the requirements specified in subsection (i) of this Section.

e) The owner or operator that controls air pollutant emissions from a tank using a fixed roof with an internal floating roof shall meet the requirements specified in subsections (e)(1) through (e)(3) of this Section.

1) The tank must be equipped with a fixed roof and an internal floating roof in accordance with the following requirements:

A) The internal floating roof must be designed to float on the liquid surface except when the floating roof must be supported by the leg supports.

B) The internal floating roof must be equipped with a continuous seal between the wall of the tank and the floating roof edge that meets either of the following requirements:

i) A single continuous seal that is either a liquid-mounted seal or a metallic shoe seal, as defined in 35 Ill. Adm. Code 725.981; or

ii) Two continuous seals mounted one of this Section the other. The lower seal may be a vapor-mounted seal.

C) The internal floating roof must meet the following specifications:

i) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

ii) Each opening in the internal floating roof must be equipped with a gasketed cover or a gasketed lid except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains.

iii) Each penetration of the internal floating roof for the purpose of sampling must have a slit fabric cover that covers at least 90% of the opening.

iv) Each automatic bleeder vent and rim space vent must be gasketed.

v) Each penetration of the internal floating roof that allows for passage of a ladder must have a gasketed sliding cover.

vi) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof must have a flexible fabric sleeve seal or a gasketed sliding cover.

2) The owner or operator shall operate the tank in accordance with the following requirements:

A) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling must be continuous and must be completed as soon as practical.

B) Automatic bleeder vents are to be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.

C) Prior to filling the tank, each cover, access hatch, gauge float well or lid on any opening in the internal floating roof must be bolted or fastened closed (i.e., no visible gaps). Rim space vents must be set to open only when the internal floating roof is not floating or when the pressure beneath the rim exceeds the manufacturer's recommended setting.

3) The owner or operator shall inspect the internal floating roof in accordance with the procedures specified as follows:

A) The floating roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, any of the following: when the internal floating roof is not floating on the surface of the liquid inside the tank; when liquid has accumulated on top of the internal floating roof; when any portion of the roof seals have detached from the roof rim; when holes, tears, or other openings are visible in the seal fabric; when the gaskets no longer close off the hazardous waste surface from the atmosphere; or when the slotted membrane has more than 10% open area.

B) The owner or operator shall inspect the internal floating roof components as follows, except as provided in subsection (e)(3)(C) of this Section:

i) Visually inspect the internal floating roof components through openings on the fixed-roof (e.g., manholes and roof hatches) at least once every 12 months after initial fill, and

ii) Visually inspect the internal floating roof, primary seal, secondary seal (if one is in service), gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least once every 10 years.

C) As an alternative to performing the inspections specified in subsection (e)(3)(B) of this Section for an internal floating roof equipped with two continuous seals mounted one above the other, the owner or operator may visually inspect the internal floating roof, primary and secondary seals, gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least every five years.

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

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

ii) When a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the Agency as soon as possible, but no later than seven calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Agency at least seven calendar days before refilling the tank.

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

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

f) The owner or operator that controls air pollutant emissions from a tank using an external floating roof must meet the requirements specified in subsections (f)(1) through (f)(3) of this Section.

1) The owner or operator shall design the external floating roof in accordance with the following requirements:

A) The external floating roof must be designed to float on the liquid surface except when the floating roof must be supported by the leg supports.

B) The floating roof must be equipped with two continuous seals, one above the other, between the wall of the tank and the roof edge. The lower seal is referred to as the

primary seal, and the upper seal is referred to as the secondary seal.

i) The primary seal must be a liquid-mounted seal or a metallic shoe seal, as defined in 35 Ill. Adm. Code 725.981. The total area of the gaps between the tank wall and the primary seal must not exceed 212 square centimeters (cm^2) per meter (10.0 square inches (in^2) per foot) of tank diameter, and the width of any portion of these gaps must not exceed 3.8 centimeters (cm) (1.5 in). If a metallic shoe seal is used for the primary seal, the metallic shoe seal must be designed so that one end extends into the liquid in the tank and the other end extends a vertical distance of at least 61 cm (24 in) above the liquid surface.

ii) The secondary seal must be mounted above the primary seal and cover the annular space between the floating roof and the wall of the tank. The total area of the gaps between the tank wall and the secondary seal must not exceed 21.2 cm^2 per meter (1.00 in^2 per foot) of tank diameter, and the width of any portion of these gaps must not exceed 1.3 cm (0.51 in).

C) The external floating roof must meet the following specifications:

i) Except for automatic bleeder vents (vacuum breaker vents) and rim space vents, each opening in a noncontact external floating roof must provide a projection below the liquid surface.

ii) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof must be equipped with a gasketed cover, seal, or lid.

iii) Each access hatch and each gauge float well must be equipped with a cover designed to be bolted or fastened when the cover is secured in the closed position.

iv) Each automatic bleeder vent and each rim space vent must be equipped with a gasket.

v) Each roof drain that empties into the liquid managed in the tank must be equipped with a slotted membrane fabric cover that covers at least 90% of the area of the opening.

vi) Each unslotted and slotted guide pole well must be equipped with a gasketed sliding cover or a flexible fabric sleeve seal.

vii) Each unslotted guide pole must be equipped with a gasketed cap on the end of the pole.

viii) Each slotted guide pole must be equipped with a gasketed float or other device which closes off the liquid surface from the atmosphere.

ix) Each gauge hatch and each sample well must be equipped with a gasketed cover.

2) The owner or operator shall operate the tank in accordance with the following requirements:

A) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling must be continuous and must be completed as soon as practical.

B) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof must be secured and maintained in a closed position at all times except when the closure device must be open for access.

C) Covers on each access hatch and each gauge float well must be bolted or fastened when secured in the closed position.

D) Automatic bleeder vents must be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.

E) Rim space vents must be set to open only at those times that the roof is being floated off the roof leg supports or

when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

F) The cap on the end of each unslotted guide pole must be secured in the closed position at all times except when measuring the level or collecting samples of the liquid in the tank.

G) The cover on each gauge hatch or sample well must be secured in the closed position at all times except when the hatch or well must be opened for access.

H) Both the primary seal and the secondary seal must completely cover the annular space between the external floating roof and the wall of the tank in a continuous fashion except during inspections.

3) The owner or operator shall inspect the external floating roof in accordance with the procedures specified as follows:

A) The owner or operator shall measure the external floating roof seal gaps in accordance with the following requirements:

i) The owner or operator shall perform measurements of gaps between the tank wall and the primary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every five years.

ii) The owner or operator shall perform measurements of gaps between the tank wall and the secondary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every year.

iii) If a tank ceases to hold hazardous waste for a period of one year or more, subsequent introduction of hazardous waste into the tank must be considered an initial operation for the purposes of subsections (f)(3)(A)(i) and (f)(3)(A)(ii) of this Section.

iv) The owner or operator shall determine the total surface area of gaps in the primary seal and in the

secondary seal individually using the procedure of subsection (f)(3)(D) of this Section.

v) In the event that the seal gap measurements do not conform to the specifications in subsection (f)(1)(B) of this Section, the owner or operator shall repair the defect in accordance with the requirements of subsection (k) of this Section.

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

B) The owner or operator shall visually inspect the external floating roof in accordance with the following requirements:

i) The floating roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, any of the following conditions: holes, tears, or other openings in the rim seal or seal fabric of the floating roof; a rim seal detached from the floating roof; all or a portion of the floating roof deck being submerged below the surface of the liquid in the tank; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

ii) The owner or operator shall perform an initial inspection of the external floating roof and its closure devices on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in subsection (l) of this Section.

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

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

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

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

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

iii) When a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the Agency as soon as possible, but no later than seven calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Agency at least seven calendar days before refilling the tank.

D) Procedure for determining the total surface area of gaps in the primary seal and the secondary seal:

i) The seal gap measurements must be performed at one or more floating roof levels when the roof is floating off the roof supports.

ii) Seal gaps, if any, must be measured around the entire perimeter of the floating roof in each place where a 0.32 cm (0.125 in) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the tank and measure the circumferential distance of each such location.

iii) For a seal gap measured under subsection (f)(3) of this Section, the gap surface area must be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

iv) The total gap area must be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal perimeter of the tank. These total gap areas for the primary seal and secondary seal are then compared to the respective standards for the seal type, as specified in subsection (f)(1)(B) of this Section.

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

g) The owner or operator that controls air pollutant emissions from a tank by venting the tank to a control device shall meet the requirements specified in subsections (g)(1) through (g)(3) of this Section.

1) The tank must be covered by a fixed roof and vented directly through a closed-vent system to a control device in accordance with the following requirements:

A) The fixed roof and its closure devices must be designed to form a continuous barrier over the entire surface area of the liquid in the tank.

B) Each opening in the fixed roof not vented to the control device must be equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices must be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device must be designed to operate with no detectable organic emissions.

C) The fixed roof and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices must include the following: organic vapor permeability; the effects of any contact with the liquid and its vapor managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.

D) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 724.987.

2) Whenever a hazardous waste is in the tank, the fixed roof must be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except as follows:

A) Venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times:

i) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

ii) To remove accumulated sludge or other residues from the bottom of a tank.

B) Opening of a safety device, as defined in 35 Ill. Adm. Code 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.

3) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the following procedures:

A) The fixed roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, any of the following: visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

B) The closed-vent system and control device must be inspected and monitored by the owner or operator in accordance with the procedures specified in Section 724.987.

C) The owner or operator shall perform an initial inspection of the air emission control equipment on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in subsection (l) of this Section.

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

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

h) The owner or operator that controls air pollutant emissions by using a pressure tank must meet the following requirements:

1) The tank must be designed not to vent to the atmosphere as a result of compression of the vapor headspace in the tank during filling of the tank to its design capacity.

2) All tank openings must be equipped with closure devices designed to operate with no detectable organic emissions as determined using the procedure specified in Section 724.983(d).

3) Whenever a hazardous waste is in the tank, the tank must be operated as a closed system that does not vent to the atmosphere except in the event that a safety device, as defined in 35 Ill. Adm. Code 725.981, is required to open to avoid an unsafe condition.

i) The owner or operator that controls air pollutant emissions by using an enclosure vented through a closed-vent system to an enclosed combustion control device must meet the requirements specified in subsections (i)(1) through (i)(4) of this Section.

1) The tank must be located inside an enclosure. The enclosure must be designed and operated in accordance with the criteria for a permanent total enclosure, as specified in "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure, as specified in Section 5.0 to "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure", initially when the enclosure is first installed and, thereafter, annually.

2) The enclosure must be vented through a closed-vent system to an enclosed combustion control device that is designed and operated in accordance with the standards for either a vapor incinerator, boiler, or process heater specified in Section 724.987.

3) Safety devices, as defined in 35 Ill. Adm. Code 725.981, may be installed and operated as necessary on any enclosure, closed-vent system, or control device used to comply with the requirements of subsections (i)(1) and (i)(2) of this Section.

4) The owner or operator shall inspect and monitor the closed-vent system and control device as specified in Section 724.987.

j) The owner or operator shall transfer hazardous waste to a tank subject to this Section in accordance with the following requirements:

1) Transfer of hazardous waste, except as provided in subsection (j)(2) of this Section, to the tank from another tank subject to this Section or from a surface impoundment subject to Section 724.985 must be conducted using continuous hard-piping or another closed system that does not allow exposure of the hazardous waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the requirements of 40 CFR 63, subpart RR, "National Emission Standards for Individual Drain Systems", incorporated by reference in 35 Ill. Adm. Code 720.111.

2) The requirements of subsection (j)(1) of this Section do not apply when transferring a hazardous waste to the tank under any of the following conditions:

A) The hazardous waste meets the average VO concentration conditions specified in Section 724.982(c)(1) at the point of waste origination.

B) The hazardous waste has been treated by an organic destruction or removal process to meet the requirements in Section 724.982(c)(2).

k) The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of subsection (c)(4), (e)(3), (f)(3), or (g)(3) of this Section, as follows:

1) The owner or operator shall make first efforts at repair of the defect no later than five calendar days after detection, and repair must be completed as soon as possible but no later than 45 calendar days after detection except as provided in subsection (k)(2) of this Section.

2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the hazardous waste normally managed in the tank. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Repair of the defect must be completed before the process or unit resumes operation.

l) Following the initial inspection and monitoring of the cover, as required by the applicable provisions of this Subpart, subsequent inspection and monitoring may be performed at intervals longer than one year under the following special conditions:

1) In the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions, then the owner or operator may designate a cover as an "unsafe to inspect and monitor cover" and comply with all of the following requirements:

A) Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required.

B) Develop and implement a written plan and schedule to inspect and monitor the cover, using the procedures specified in the applicable Section of this Subpart, as frequently as practicable during those times when a worker can safely access the cover.

2) In the case when a tank is buried partially or entirely underground, an owner or operator is required to inspect and monitor, as required by the applicable provisions of this Section, only those portions of the tank cover and those connections to the tank (e.g., fill ports, access hatches, gauge wells, etc.) that are located on or above the ground surface.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 724.985 Standards: Surface Impoundments

~~a) This Section applies to owners and operators of surface impoundments subject to this Subpart into which any hazardous waste is placed except for the following surface impoundments:~~

~~1) A surface impoundment in which all hazardous waste entering the surface impoundment meets the conditions specified in Section 724.982(c); or~~

~~2) A surface impoundment used for biological treatment of hazardous waste in accordance with the requirements of Section 724.982(c)(2)(D).~~

~~b) The owner or operator shall place the hazardous waste into a surface impoundment equipped with a cover (e.g., an air-supported structure or a rigid cover) that is vented through a closed-vent system to a control device meeting the requirements specified in subsection (d) below.~~

~~c) As an alternative to complying with subsection (b) above, an owner or operator may place hazardous waste in a surface impoundment equipped with a floating membrane cover meeting the requirements specified in subsection (e) below when the hazardous waste is determined to meet all of the following conditions:~~

~~1) The hazardous waste is not mixed, stirred, agitated, or circulated within the surface impoundment by the owner or operator using a process that results in splashing, frothing, or visible turbulent flow on the waste surface during normal process operations;~~

~~2) The hazardous waste in the surface impoundment is not heated by the owner or operator; and~~

~~3) The hazardous waste is not treated by the owner or operator using a waste stabilization process or a process that produces an exothermic reaction.~~

~~d) To comply with subsection (b)(1) above, the owner or operator shall design, install, operate, and maintain a cover that vents the organic vapors emitted from hazardous waste in the surface impoundment through a closed-vent system connected to a control device.~~

~~1) The cover shall be designed and operated to meet the following requirements:~~

A) The cover and all cover openings (e.g., access hatches, sampling ports, and gauge wells) shall be designed to operate with no detectable organic emissions when all cover openings are secured in a closed, sealed position;

B) Each cover opening shall be secured in the closed, sealed position (e.g., covered by a gasketed lid or cap) at all times that hazardous waste is in the surface impoundment, except as provided for in subsection (g) below; and

C) The closed-vent system and control device shall be designed and operated in accordance with Section 724.987.

e) To comply with subsection (c) above, the owner or operator shall design, install, operate, and maintain a floating membrane cover that meets all of the requirements specified in 35 Ill. Adm. Code 725.986(e)(1) through (e)(4).

f) The owner or operator shall install, operate, and maintain enclosed pipes or other closed-systems to:

BOARD NOTE: U.S. EPA considers a drain system that meets the requirements of 40 CFR 61.346(a)(1) or (b)(1) through (b)(3) to be a "closed-system". The Board intends that this meaning be included in the use of that term for the purposes of this Subpart.

1) Transfer all hazardous waste to the surface impoundment from another tank, surface impoundment, or container subject to this Subpart except for those hazardous wastes that meet the conditions specified in Section 724.982(c); and

2) Transfer all hazardous waste from the surface impoundment to another tank, surface impoundment, or container subject to this Subpart except for those hazardous wastes that meet the conditions specified in Section 724.982(c).

g) Each cover opening shall be secured in the closed, sealed position (e.g., a cover by a gasketed lid or cap) at all times that hazardous waste is in the surface impoundment except when it is necessary to use the cover opening to:

1) Add, remove, inspect, or sample the material in the surface impoundment;

~~2) Inspect, maintain, repair, or replace equipment located underneath the cover;~~

~~3) Remove treatment residues from the surface impoundment in accordance with the requirements of 35 Ill. Adm. Code 728.4; or~~

~~4) Vent gases or vapors from the surface impoundment to a closed-vent system connected to a control device that is designed and operated in accordance with the requirements of Section 724.987.~~

~~h) One or more safety devices that vent directly to the atmosphere may be installed on the cover, closed-vent system, or control device provided each device meets all of the following conditions:~~

~~1) The safety device is not used for planned or routine venting of organic vapors from the surface impoundment or the closed-vent system connected to a control device; and~~

~~2) The safety device remains in a closed, sealed position at all times, except when an unplanned event requires that the device open for the purpose of preventing physical damage or permanent deformation of the cover, closed-vent system, or control device in accordance with good engineering and safety practices for handling flammable, combustible, explosive, or other hazardous materials. An example of an unplanned event is a sudden power outage.~~

a) The provisions of this Section apply to the control of air pollutant emissions from surface impoundments for which Section 724.982(b) references the use of this Section for such air emission control.

b) The owner or operator shall control air pollutant emissions from the surface impoundment by installing and operating either of the following:

1) A floating membrane cover in accordance with the provisions specified in subsection (c) of this Section; or

2) A cover that is vented through a closed-vent system to a control device in accordance with the provisions specified in subsection (d) of this Section.

c) The owner or operator that controls air pollutant emissions from a surface impoundment using a floating membrane cover must meet the

requirements specified in subsections (c)(1) through (c)(3) of this Section.

1) The surface impoundment must be equipped with a floating membrane cover designed to meet the following specifications:

A) The floating membrane cover must be designed to float on the liquid surface during normal operations and form a continuous barrier over the entire surface area of the liquid.

B) The cover must be fabricated from a synthetic membrane material that is either:

i) High density polyethylene (HDPE) with a thickness no less than 2.5 millimeters (mm) (0.098 in); or

ii) A material or a composite of different materials determined to have both organic permeability properties that are equivalent to those of the material listed in subsection (c)(1)(B)(i) of this Section and chemical and physical properties that maintain the material integrity for the intended service life of the material.

C) The cover must be installed in such a manner that there are no visible cracks, holes, gaps, or other open spaces between cover section seams or between the interface of the cover edge and its foundation mountings.

D) Except as provided for in subsection (c)(1)(E) of this Section, each opening in the floating membrane cover must be equipped with a closure device so designed as to operate that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device.

E) The floating membrane cover may be equipped with one or more emergency cover drains for removal of stormwater. Each emergency cover drain must be equipped with a slotted membrane fabric cover that covers at least 90% of the area of the opening or a flexible fabric sleeve seal.

F) The closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the closure devices throughout their intended service life. Factors to be considered when selecting the materials of construction and designing the cover and closure devices must include the following: the organic vapor permeability; the effects of any contact with the liquid and its vapor managed in the surface impoundment; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the surface impoundment on which the floating membrane cover is installed.

2) Whenever a hazardous waste is in the surface impoundment, the floating membrane cover must float on the liquid and each closure device must be secured in the closed position, except as follows:

A) Opening of closure devices or removal of the cover is allowed at the following times:

i) To provide access to the surface impoundment for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the surface impoundment, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly replace the cover and secure the closure device in the closed position, as applicable.

ii) To remove accumulated sludge or other residues from the bottom of surface impoundment.

B) Opening of a safety device, as defined in 35 Ill. Adm. Code 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.

3) The owner or operator shall inspect the floating membrane cover in accordance with the following procedures:

A) The floating membrane cover and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover section seams or between the interface of the cover edge and its foundation mountings; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

B) The owner or operator shall perform an initial inspection of the floating membrane cover and its closure devices on or before the date that the surface impoundment becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in subsection (g) of this Section.

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

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

d) The owner or operator that controls air pollutant emissions from a surface impoundment using a cover vented to a control device shall meet the requirements specified in subsections (d)(1) through (d)(3) of this Section.

1) The surface impoundment must be covered by a cover and vented directly through a closed-vent system to a control device in accordance with the following requirements:

A) The cover and its closure devices must be designed to form a continuous barrier over the entire surface area of the liquid in the surface impoundment.

B) Each opening in the cover not vented to the control device must be equipped with a closure device. If the pressure in the vapor headspace underneath the cover is less than atmospheric pressure when the control device is operating, the closure devices must be designed to operate such that when the closure device is secured in the closed position

there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the cover is equal to or greater than atmospheric pressure when the control device is operating, the closure device must be designed to operate with no detectable organic emissions using the procedure specified in Section 724.983(d).

C) The cover and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the cover and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the cover and closure devices must include the following: the organic vapor permeability; the effects of any contact with the liquid or its vapors managed in the surface impoundment; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the surface impoundment on which the cover is installed.

D) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 724.987.

2) Whenever a hazardous waste is in the surface impoundment, the cover must be installed with each closure device secured in the closed position and the vapor headspace underneath the cover vented to the control device except as follows:

A) Venting to the control device is not required, and opening of closure devices or removal of the cover is allowed at the following times:

i) To provide access to the surface impoundment for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the surface impoundment, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the

closure device in the closed position or reinstall the cover, as applicable, to the surface impoundment.

ii) To remove accumulated sludge or other residues from the bottom of surface impoundment.

B) Opening of a safety device, as defined in 35 Ill. Adm. Code 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.

3) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the following procedures:

A) The surface impoundment cover and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover section seams or between the interface of the cover edge and its foundation mountings; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

B) The closed-vent system and control device must be inspected and monitored by the owner or operator in accordance with the procedures specified in Section 724.987.

C) The owner or operator shall perform an initial inspection of the air emission control equipment on or before the date that the surface impoundment becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in subsection (g) of this Section.

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

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

e) The owner or operator shall transfer hazardous waste to a surface impoundment subject to this Section in accordance with the following requirements:

1) Transfer of hazardous waste, except as provided in subsection (e)(2) of this Section, to the surface impoundment from another surface impoundment subject to this Section or from a tank subject to Section 724.984 must be conducted using continuous hard-piping or another closed system that does not allow exposure of the waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the requirements of 40 CFR 63, Subpart RR, "National Emission Standards for Individual Drain Systems", incorporated by reference in 35 Ill. Adm. Code 720.111.

2) The requirements of subsection (e)(1) of this Section do not apply when transferring a hazardous waste to the surface impoundment under either of the following conditions:

A) The hazardous waste meets the average VO concentration conditions specified in Section 724.982(c)(1) at the point of waste origination.

B) The hazardous waste has been treated by an organic destruction or removal process to meet the requirements in Section 724.982(c)(2).

f) The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of subsection (c)(3) or (d)(3) of this Section as follows:

1) The owner or operator shall make first efforts at repair of the defect no later than five calendar days after detection and repair must be completed as soon as possible but no later than 45 calendar days after detection except as provided in subsection (f)(2) of this Section.

2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the surface impoundment and no alternative capacity is available at the site to accept the hazardous waste normally managed in the surface impoundment. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the

hazardous waste managed in the surface impoundment stops operation. Repair of the defect must be completed before the process or unit resumes operation.

g) Following the initial inspection and monitoring of the cover as required by the applicable provisions of this Subpart, subsequent inspection and monitoring may be performed at intervals longer than one year in the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions. In this case, the owner or operator may designate the cover as an "unsafe to inspect and monitor cover" and comply with all of the following requirements:

1) Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required.

2) Develop and implement a written plan and schedule to inspect and monitor the cover using the procedures specified in the applicable Section of this Subpart as frequently as practicable during those times when a worker can safely access the cover.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 724.986 Standards: Containers

~~a) This Section applies to the owners and operators of containers having design capacities greater than 0.1 m^3 (3.5 ft^3 or 26.4 gal) subject to this Subpart into which any hazardous waste is placed except for a container in which all hazardous waste entering the container meets the conditions specified in Section 724.982(c).~~

~~b) An owner or operator shall manage hazardous waste in containers using the following procedures:~~

~~1) The owner or operator shall place the hazardous waste into one of the following containers, except when a container is used for hazardous waste treatment as required by subsection (b)(2) below:~~

~~A) A container that is equipped with a cover which operates with no detectable organic emissions when all container openings (e.g., lids, bungs, hatches, and sampling ports) are secured in a closed, sealed position. The owner or operator shall determine that a container operates with no detectable emissions by testing each opening on the~~

~~container for leaks in accordance with Method 21 in 40 CFR 60, Appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, the first time any portion of the hazardous waste is placed into the container. If a leak is detected and cannot be repaired immediately, the hazardous waste shall be removed from the container and the container not used to meet the requirements of this subsection until the leak is repaired and the container is retested.~~

~~B) A container having a design capacity less than or equal to 0.46 m^3 (16.2 ft^3 or 122 gal) that is equipped with a cover and complies with all applicable Department of Transportation regulations on packaging hazardous waste for transport under 49 CFR 178, incorporated by reference at 35 Ill. Adm. Code 720.111.~~

~~i) A container that is managed in accordance with the requirements of 49 CFR 178, incorporated by reference at 35 Ill. Adm. Code 720.111, for the purpose of complying with this Subpart, is not subject to any exceptions to the 49 CFR 178 regulations, except as noted in subsection (b)(1)(B)(ii) below.~~

~~ii) A lab pack that is managed in accordance with the requirements of 49 CFR 178, incorporated by reference at 35 Ill. Adm. Code 720.111, for the purpose of complying with this Subpart, may comply with the exceptions for combination packagings specified in 49 CFR 173.12(b), incorporated by reference at 35 Ill. Adm. Code 720.111.~~

~~C) A container that is attached to or forms a part of any truck, trailer, or railcar and that has been demonstrated within the preceding 12 months to be organic vapor tight when all container openings are in a closed, sealed position (e.g., the container hatches or lids are gasketed and latched). For the purpose of meeting the requirements of this subsection, a container is organic vapor tight if the container sustains a pressure change of not more than 0.75 kPa (0.11 psig or 5.6 mm Hg) within 5 minutes after it is pressurized to a minimum of 4.50 kPa (0.65 psig or 33.7 mm Hg). This condition is to be~~

demonstrated using the pressure test specified in Method 27 of 40 CFR 60, Appendix A, and a pressure measurement device which has a precision of ± 2.5 mm water and which is capable of measuring above the pressure at which the container is to be tested for vapor tightness.

2) An owner or operator treating hazardous waste in a container by either a waste stabilization process, any process that requires the addition of heat to the waste, or any process that produces an exothermic reaction shall meet the following requirements:

A) Whenever it is necessary for the container to be open during the treatment process, the container shall be located inside an enclosure that is vented through a closed-vent system to a control device.

B) The enclosure shall be a structure that is designed and operated in accordance with the following requirements:

i) The enclosure shall be a structure that is designed and operated with sufficient airflow into the structure to capture the organic vapors emitted from the hazardous waste in the container and vent the vapors through the closed-vent system to the control device.

ii) 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 to direct airflow into the enclosure. The pressure drop across each opening in the enclosure shall be maintained at a pressure below atmospheric pressure so that whenever an open container is placed inside the enclosure no organic vapors released from the container exit the enclosure through the opening. The owner or operator shall determine that an enclosure achieves this condition by measuring the pressure drop across each opening in the enclosure. If the pressure within the enclosure is equal to or greater than atmospheric pressure then the enclosure does not meet the requirements of this Section.

C) The closed-vent system and control device shall be designed and operated in accordance with the requirements of Section 724.987.

3) An owner or operator transferring hazardous waste into a container having a design capacity greater than 0.46 m^3 (16.2 ft^3 or 122 gal) shall meet the following requirements:

A) Hazardous waste transfer by pumping shall be performed using a conveyance system that uses a tube (e.g., pipe, hose) to add the waste into the container. During transfer of the waste into the container, the cover shall remain in place and all container openings shall be maintained in a closed, sealed position except for those openings through which the tube enters the container and as provided for in subsection (c) below. The tube shall be positioned in a manner so that:

i) The tube outlet continuously remains submerged below the waste surface at all times waste is flowing through the tube;

ii) The lower bottom edge of the tube outlet is located at a distance no greater than two inside diameters of the tube or 15.25 cm (6.0 in), whichever distance is greater, from the bottom of the container at all times waste is flowing through the tube; or

iii) The tube is connected to a permanent port mounted on the bottom of the container so that the lower edge of the port opening inside the container is located at a distance equal to or less than 15.25 cm (6.0 in) from the container bottom.

B) Hazardous waste transferred by a means other than pumping shall be performed such that during transfer of the waste into the container, the cover remains in place and all container openings are maintained in a closed, sealed position except for those openings through which the hazardous waste is added and as provided for in subsection (d) below.

~~c) Each container opening shall be maintained in a closed, sealed position (e.g., covered by a gasketed lid) at all times that hazardous waste is in the container except when it is necessary to use the opening to:~~

~~1) Add, remove, inspect, or sample the material in the container;~~

~~2) Inspect, maintain, repair, or replace equipment located inside the container; or~~

~~3) Vent gases or vapors from a cover located over or enclosing an open container to a closed-vent system connected to a control device that is designed and operated in accordance with the requirements of Section 724.987.~~

~~d) One or more safety devices that vent directly to the atmosphere may be used on the container, cover, enclosure, closed-vent system, or control device provided each device meets all of the following conditions:~~

~~1) The safety device is not used for planned or routine venting of organic vapors from the container, cover, enclosure, or closed-vent system connected to a control device; and~~

~~2) The safety device remains in a closed, sealed position at all times except when an unplanned event requires that the device open for the purpose of preventing physical damage or permanent deformation of the container, cover, enclosure, closed-vent system, or control device in accordance with good engineering and safety practices for handling flammable, combustible, explosive, or other hazardous materials. An example of an unplanned event is a sudden power outage.~~

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 shall 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^3 (26 gal) and less than or equal to 0.46 m^3 (120 gal), the owner or operator shall 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^3 (120 gal) that is not in light material service, the owner or operator shall 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^3 (120 gal) that is in light material service, the owner or operator shall 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^3 (26 gal) is used for treatment of a hazardous waste by a waste stabilization process, the owner or operator shall 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 U.S. Department of Transportation (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 such 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 shall 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 shall 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 shall 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 shall 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 shall 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 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 shall 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 (i.e., does not meet the conditions for an empty container as specified in 35 Ill. Adm. Code 721.107(b)) within 24 hours after the container is accepted at the facility, the owner or operator shall 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. If a defect is detected, the owner or operator shall 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 shall 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 shall 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 shall 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 shall maintain at the facility a copy of the procedure used to determine that containers with capacity of 0.46 m^3 (120 gal) or greater, which do not meet applicable DOT 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 U.S. Department of Transportation (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 40 CFR 60, appendix A, Method 27, incorporated by reference in 35 Ill. Adm. Code 720.111, 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 shall 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 shall 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 shall

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 shall 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 shall 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 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 shall 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 (i.e., does not meet the conditions for an empty container as specified in 35 Ill. Adm. Code 721.107(b)) within 24 hours after the container arrives at the facility, the owner or operator shall 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. If a defect is detected, the owner or operator shall 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 shall 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 shall 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 shall 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 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) of this Section.

2) The owner or operator shall 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 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111. The enclosure may have permanent or temporary openings to allow worker access; passage of 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 shall perform the verification procedure for the enclosure as specified in Section 5.0 to "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" initially when the enclosure is first installed and, thereafter, annually.

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 shall 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 shall prepare and maintain the records specified in Section 724.989(d).

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 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 Packaging", or 49 CFR 179, "Specifications for Tank Cars", both incorporated by reference in 35 Ill. Adm. Code 720.111.

2) Hazardous waste is managed in the container in accordance with the applicable requirements specified in 49 CFR 107, Subpart B, "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.

3) For the purpose of complying with this Subpart, 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 requirements of 49 CFR 178, incorporated by reference in 35 Ill. Adm. Code 720.111, for the purpose of complying with this Subpart, an owner or operator may comply with the exceptions for combination packagings specified in 49 CFR 173.12(b).

g) The owner or operator shall use the procedure specified in Section 724.983(d) for determining a container operates with no detectable organic emissions for the purpose of complying with subsection (d)(1)(B) of this Section.

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 Method 27 of 40 CFR 60, appendix A for the purpose of complying with subsection (d)(1)(C) of this Section.

1) The test must be performed in accordance with Method 27 of 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.

2) A pressure measurement device must be used that has a precision of ± 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 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 21 Ill. Reg. _____, effective _____)

Section 724.987 Standards: Closed-vent Systems and Control Devices

a) This Section applies to each closed-vent system and control device installed and operated by the owner or operator to control air emissions in accordance with standards of this Subpart.

b) The closed-vent system shall meet the following requirements:

1) The closed-vent system shall route the gases, vapors, and fumes emitted from the hazardous waste in the waste management unit to a control device that meets the requirements specified in subsection (c) ~~below~~of this Section.

2) The closed-vent system shall be designed and operated in accordance with the requirements specified in Section 724.933(k).

~~3) If the closed-vent system contains one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from entering the control device, the owner or operator shall meet the following requirements:~~

~~A) For each bypass device, except as provided for in subsection (b)(3)(B) below, the owner or operator shall either:~~

~~i) Install, calibrate, maintain, and operate a flow indicator at the inlet to the bypass device that indicates at least once every 15 minutes whether gas, vapor, or fume flow is present in the bypass device; or~~

~~ii) Secure a valve installed at the inlet to the bypass device in the closed position using a car-seal or a lock-and-key type configuration. The owner or operator shall visually inspect the seal or closure mechanism at least once every month to verify that the valve is maintained in the closed position.~~

~~B) Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to the requirements of subsection (b)(3)(A) above.~~

3) When the closed-vent system includes bypass devices that could be used to divert the gas or vapor stream to the atmosphere before entering the control device, each bypass device must be equipped with either a flow indicator, as specified in subsection (b)(3)(A) of this Section, or a seal or locking device, as specified in subsection (b)(3)(B) of this Section. For the purpose of complying with this subsection, low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, spring-loaded pressure-relief valves, and other fittings used for safety purposes are not considered to be bypass devices.

A) If a flow indicator is used to comply with this subsection (b)(3), the indicator must be installed at the inlet to the bypass line used to divert gases and vapors from the closed-vent system to the atmosphere at a point upstream of the control device inlet. For the purposes of this subsection, a flow indicator means a device that 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) of this Section, the device must be placed on the mechanism by which the bypass device

position is controlled (e.g., valve handle or damper lever) when the bypass device is in the closed position such that the bypass device cannot be opened without breaking the seal or removing the lock. Examples of such devices include, but are not limited to, a car-seal or a lock-and-key configuration valve. The owner or operator shall visually inspect the seal or closure mechanism at least once every month to verify that the bypass mechanism is maintained in the closed position.

4) The closed-vent system must be inspected and monitored by the owner or operator in accordance with the procedure specified in Section 724.933(l).

c) The control device shall meet the following requirements:

1) The control device shall 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 724.933(c); or

C) A flare designed and operated in accordance with the requirements of Section 724.933(d).

~~2) The control device shall be operating at all times when gases, vapors, or fumes are vented from the waste management unit through the closed-vent system to the control device.~~

2) The owner or operator that elects to use a closed-vent system and control device to comply with the requirements of this Section shall comply with the requirements specified in subsections (c)(2)(A) through (c)(2)(F) of this Section.

A) Periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of subsections (c)(1)(A), (c)(1)(B), or (c)(1)(C) of this Section, as applicable, must not exceed 240 hours per year.

B) The specifications and requirements in subsections (c)(1)(A), (c)(1)(B), and (c)(1)(C) of this Section for control devices do not apply during periods of planned routine maintenance.

C) The specifications and requirements in subsections (c)(1)(A), (c)(1)(B), and (c)(1)(C) of this Section for control devices do not apply during a control device system malfunction.

D) The owner or operator shall demonstrate compliance with the requirements of subsection (c)(2)(A) of this Section (i.e., planned routine maintenance of a control device, during which the control device does not meet the specifications of subsections (c)(1)(A), (c)(1)(B), or (c)(1)(C) of this Section, as applicable, must not exceed 240 hours per year) by recording the information specified in Section 724.989(e)(1)(E).

E) The owner or operator shall correct control device system malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of air pollutants.

F) The owner or operator shall operate the closed-vent system so that gases, vapors, or fumes are not actively vented to the control device during periods of planned maintenance or control device system malfunction (i.e., periods when the control device is not operating or not operating normally), except in cases when it is necessary to vent the gases, vapors, or fumes to avoid an unsafe condition or to implement malfunction corrective actions or planned maintenance actions.

3) The owner or operator using a carbon adsorption system to comply with subsection (c)(1) ~~above~~of this Section shall operate and maintain the control device in accordance with the following requirements:

A) Following the initial startup of the control device, all activated carbon in the control device shall be replaced with fresh carbon on a regular basis in accordance with the requirements of Section 724.933(g) or Section 724.933(h).

B) All carbon removed from the control device shall be managed in accordance with the requirements of Section 724.933(~~m~~n).

4) An owner or operator using a control device other than a thermal vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system to comply with subsection (c)(1) ~~above~~of this Section shall operate and maintain the control device in accordance with the requirements of Section 724.933(j).

5) The owner or operator shall demonstrate that a control device achieves the performance requirements of subsection (c)(1) ~~above~~of this Section, as follows:

A) An owner or operator shall demonstrate using either a performance test, as specified in subsection (c)(5)(C) ~~below~~of this Section, or a design analysis, as specified in subsection (c)(5)(D) ~~below~~of this Section, the performance of each control device except for the following:

i) A flare;

ii) A boiler or process heater with a design heat input capacity of 44 megawatts or greater;

iii) A boiler or process heater into which the vent stream is introduced with the primary fuel;

iv) A boiler or ~~process heater~~industrial furnace burning hazardous waste for which the owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 and ~~designs~~has designed and operates the unit in accordance with the interim status requirements of 35 Ill. Adm. Code 726.Subpart H; or

v) A boiler or ~~process heater~~industrial furnace burning hazardous waste ~~for which~~ that the owner or operator has ~~certified compliance~~designed and operates in accordance with the interim status requirements of 35 Ill. Adm. Code 726.Subpart H.

B) An owner or operator shall demonstrate the performance of each flare in accordance with the requirements specified in Section 724.933(e).

C) For a performance test conducted to meet the requirements of subsection (c)(5)(A) ~~above~~of this Section, the owner or operator shall use the test methods and procedures specified in Section 724.934(c)(1) through (c)(4).

D) For a design analysis conducted to meet the requirements of subsection (c)(5)(A) ~~above~~of this Section, the design analysis shall meet the requirements specified in Section 724.935(b)(4)(C).

E) The owner or operator shall demonstrate that a carbon adsorption system achieves the performance requirements of subsection (c)(1) ~~above~~of this Section based on the total quantity of organics vented to the atmosphere from all carbon adsorption system equipment that is used for organic adsorption, organic desorption or carbon regeneration, organic recovery, and carbon disposal.

6) If the owner or operator and the Agency do not agree on a demonstration of control device performance using a design analysis then the disagreement shall be resolved using the results of a performance test performed by the owner or operator in accordance with the requirements of subsection (c)(5)(C) ~~above~~of this Section. The Agency may choose to have an authorized representative observe the performance test.

7) The control device must be inspected and monitored by the owner or operator in accordance with the procedures specified in Section 724.933(f)(2) and (l). The readings from each monitoring device required by Section 724.933(f)(2) must be inspected at least once each operating day to check control device operation. Any necessary corrective measures must be immediately implemented to ensure the control device is operated in compliance with the requirements of this Section.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 724.988 Inspection and Monitoring Requirements

a) This Section applies to an owner or operator using air emission controls in accordance with the requirements of Sections 724.984 through 724.987.

b) Each cover used in accordance with requirements of Section 724.984 through 724.986 shall be visually inspected and monitored for detectable organic emissions by the owner or operator using the procedure specified in 35 Ill. Adm. Code 725.989(f)(1) through (f)(7), except as follows:

1) An owner or operator is exempted from performing the cover inspection and monitoring requirements specified in 35 Ill. Adm. Code 725.989(f)(1) through (f)(7) for the following tank covers:

A) A tank internal floating roof that is inspected and monitored in accordance with the requirements of Section 724.991; or

B) A tank external floating roof that is inspected and monitored in accordance with the requirements of Section 724.991.

2) If a tank is buried partially or entirely underground, an owner or operator is required to perform the cover inspection and monitoring requirements specified in 35 Ill. Adm. Code 725.989(f)(1) through (f)(7) only for those portions of the tank cover and those connections to the tank cover or tank body (e.g., fill ports, access hatches, gauge wells, etc.) that extend to or above the ground surface and can be opened to the atmosphere.

3) An owner or operator is exempted from performing the cover inspection and monitoring requirements specified in 35 Ill. Adm. Code 725.989(f)(1) through (f)(7) for a container that meets all requirements specified in either Section 724.986(b)(1)(B) or (b)(1)(C).

4) An owner or operator is exempted from performing the cover inspection and monitoring requirements specified in 35 Ill. Adm. Code 725.989(f)(1) through (f)(7) for an enclosure used to control air emissions from containers in accordance with the requirements of Section 724.986(b)(2).

c) Each closed-vent system used in accordance with the requirements of Section 724.987 shall be inspected and monitored by the owner or operator in accordance with the procedure specified in Section 724.933(k).

~~d) Each control device used in accordance with the requirements of Section 724.987 shall be inspected and monitored by the owner or operator in accordance with the procedures specified in Sections 724.933(f)(2) and 724.933(i). The readings from each monitoring device required by Section 724.933(f)(2) shall be inspected at least once each operating day to check control device operation. Any necessary corrective measures should be immediately implemented to ensure the control device is operated in compliance with the requirements of Section 264.987.~~

~~e) The owner or operator shall develop and implement a written plan and schedule to perform all inspection and monitoring requirements of this section. The owner or operator shall incorporate this plan and schedule into the facility inspection plan required under Section 724.115.~~

a) The owner or operator shall inspect and monitor air emission control equipment used to comply with this Subpart in accordance with the applicable requirements specified in Section 724.984 through Section 724.987.

b) The owner or operator shall develop and implement a written plan and schedule to perform the inspections and monitoring required by subsection (a) of this Section. The owner or operator shall incorporate this plan and schedule into the facility inspection plan required under 35 Ill. Adm. Code 724.115.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 724.989 Recordkeeping Requirements

~~a) Each owner or operator of a facility subject to requirements in this Subpart shall record and maintain the following information as applicable:~~

~~1) Documentation for each cover installed on a tank in accordance with the requirements of Section 724.984(b)(2) or (b)(3) 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(c).~~

~~2) Documentation for each floating membrane cover installed on a surface impoundment in accordance with the requirements of Section 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 725.986(e).

3) Documentation for each enclosure used to control air emissions from containers in accordance with the requirements of Section 724.986(b)(2)(A) that includes information prepared by the owner or operator or provided by the manufacturer or vendor describing the enclosure design, and certification by the owner or operator that the enclosure meets the specifications listed in Section 724.986(b)(2)(B).

4) Documentation for each closed-vent system and control device installed in accordance with the requirements of Section 724.987 that includes:

A) Certification that is signed and dated by the owner or operator stating that the control device is designed to operate at the performance level documented by a design analysis as specified in subsection (a)(4)(B) below or by performance tests as specified in subsection (a)(4)(C) below when the tank, surface impoundment, or container is or would be operating at capacity or the highest level reasonably expected to occur.

B) If a design analysis is used, then design documentation as specified in Section 724.935(b)(4). The documentation shall include information prepared by the owner or operator or provided by the control device manufacturer or vendor that describes the control device design in accordance with Section 724.935(b)(4)(C) and certification by the owner or operator that the control equipment meets the applicable specifications.

C) If performance tests are used, then a performance test plan as specified in Section 724.935(b)(3) and all test results.

D) Information as required by Section 724.935(c)(1) and (c)(2).

5) Records for all Method 27 tests performed by the owner or operator for each container used to meet the requirements of Section 724.986(b)(1)(C).

6) Records for all visual inspections conducted in accordance with the requirements of Section 724.988.

7) Records for all monitoring for detectable organic emissions conducted in accordance with the requirements of Section 724.988.

8) Records of the date of each attempt to repair a leak, repair methods applied, and the date of successful repair.

9) Records for all continuous monitoring conducted in accordance with the requirements of Section 724.988.

10) Records of the management of carbon removed from a carbon adsorption system conducted in accordance with Section 724.987(c)(3)(B).

11) Records for all inspections of each cover installed on a tank in accordance with the requirements of Section 724.984(b)(2) or (b)(3) that includes information as listed in 35 Ill. Adm. Code 725.991(c).

b) An owner or operator electing to use air emission controls for a tank in accordance with the conditions specified in Section 724.984(c) shall record the following information:

1) Date and time each waste sample is collected for direct measurement of maximum organic vapor pressure in accordance with Section 724.983(c).

2) Results of each determination of the maximum organic vapor pressure of the waste in a tank performed in accordance with Section 724.983(c).

3) Records specifying the tank dimensions and design capacity.

c) An owner or operator electing to use air emission controls for a tank in accordance with the requirements of Section 724.991 shall record the information required by Section 724.991(c).

d) An owner or operator electing not to use air emission controls for a particular tank, surface impoundment, or container subject to this Subpart in accordance with the conditions specified in Section 724.982(c) shall record the information used by the owner or operator for each waste determination (e.g., test results, measurements,

~~calculations, and other documentation) in the facility operating log. If analysis results for waste samples are used for the waste determination, then the owner or operator shall record the date, time, and location that each waste sample is collected in accordance with applicable requirements of Section 724.983.~~

~~e) An owner or operator electing to comply with requirements in accordance with Section 724.982(c)(2)(E) or Section 724.982(c)(2)(F) shall record the identification number for the incinerator, boiler, or industrial furnace in which the hazardous waste is treated.~~

~~f) An owner or operator designating a cover as unsafe to inspect and monitor pursuant to 35 Ill. Adm. Code 725.989(f)(5) or difficult to inspect and monitor pursuant to 35 Ill. Adm. Code 725.989(f)(6) shall record in a log that is kept in the facility operating record the following information:~~

~~1) A list of identification numbers for tanks with covers that are designated as unsafe to inspect and monitor in accordance with the requirements of 35 Ill. Adm. Code 725.989(f)(5), an 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.~~

~~2) A list of identification numbers for tanks with covers that are designated as difficult to inspect and monitor in accordance with the requirements of 35 Ill. Adm. Code 725.989(f)(6), an explanation for each cover stating why the cover is difficult to inspect and monitor, and the plan and schedule for inspecting and monitoring each cover.~~

~~g) All records required by subsections (a) through (f) above, except as required in subsections (a)(1) through (a)(4), shall be maintained in the operating record for a minimum of 3 years. All records required by subsections (a)(1) through (a)(4) above shall be maintained in the operating record until the air emission control equipment is replaced or otherwise no longer in service.~~

a) Each owner or operator of a facility subject to requirements in this Subpart shall record and maintain the information specified in subsections (b) through (i) of this Section, as applicable to the facility. Except for air emission control equipment design documentation and information required by subsection (i) of this Section, records required by this Section must be maintained in the operating record for a minimum of three years. Air emission control equipment design

documentation must be maintained in the operating record until the air emission control equipment is replaced or is otherwise no longer in service. Information required by subsection (i) of this Section must be maintained in the operating record for as long as the tank or container is not using air emission controls specified in Sections 724.984 through 724.987, in accordance with the conditions specified in Section 724.984(d).

b) The owner or operator of a tank using air emission controls in accordance with the requirements of Section 724.984 shall prepare and maintain records for the tank that include the following information:

1) For each tank using air emission controls in accordance with the requirements of Section 724.984, the owner or operator shall record:

A) A tank identification number (or other unique identification description as selected by the owner or operator).

B) A record for each inspection required by Section 724.984 that includes the following information:

i) Date inspection was conducted.

ii) For each defect detected during the inspection, the following information: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of Section 724.984, the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.

2) In addition to the information required by subsection (b)(1) of this Section, the owner or operator shall record the following information, as applicable to the tank:

A) The owner or operator using a fixed roof to comply with the Tank Level 1 control requirements specified in Section 724.984(c) shall prepare and maintain records for each determination for the maximum organic vapor pressure of the hazardous waste in the tank performed in accordance with the requirements of Section 724.984(c). The records

must include the date and time the samples were collected, the analysis method used, and the analysis results.

B) The owner or operator using an internal floating roof to comply with the Tank Level 2 control requirements specified in Section 724.984(e) shall prepare and maintain documentation describing the floating roof design.

C) Owners and operators using an external floating roof to comply with the Tank Level 2 control requirements specified in Section 724.984(f) shall prepare and maintain the following records:

i) Documentation describing the floating roof design and the dimensions of the tank.

ii) Records for each seal gap inspection required by Section 724.984(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 724.984(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 owner or operator using an enclosure to comply with the Tank Level 2 control requirements specified in Section 724.984(i) shall prepare and maintain the following records:

i) Records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111.

ii) Records required for the closed-vent system and control device in accordance with the requirements of subsection (e) of this Section.

c) The owner or operator of a surface impoundment using air emission controls in accordance with the requirements of Section 724.985 shall prepare and maintain records for the surface impoundment that include the following information:

1) A surface impoundment identification number (or other unique identification description as selected by the owner or operator).

2) Documentation describing the floating membrane cover or cover design, as applicable to the surface impoundment, that includes information prepared by the owner or operator or provided by the cover manufacturer or vendor describing the cover design, and certification by the owner or operator that the cover meets the specifications listed in Section 724.985(c).

3) A record for each inspection required by Section 724.985 that includes the following information:

A) Date inspection was conducted.

B) For each defect detected during the inspection the following information: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of Section 724.985(f), the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.

4) For a surface impoundment equipped with a cover and vented through a closed-vent system to a control device, the owner or operator shall prepare and maintain the records specified in subsection (e).

d) The owner or operator of containers using Container Level 3 air emission controls in accordance with the requirements of Section 724.986 shall prepare and maintain records that include the following information:

1) Records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure

meets the criteria of a permanent total enclosure as specified in "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111.

2) Records required for the closed-vent system and control device in accordance with the requirements of subsection (e) of this Section.

e) The owner or operator using a closed-vent system and control device in accordance with the requirements of Section 724.987 shall prepare and maintain records that include the following information:

1) Documentation for the closed-vent system and control device that includes:

A) Certification that is signed and dated by the owner or operator stating that the control device is designed to operate at the performance level documented by a design analysis as specified in subsection (e)(1)(B) of this Section or by performance tests as specified in subsection (e)(1)(C) of this Section when the tank, surface impoundment, or container is or would be operating at capacity or the highest level reasonably expected to occur.

B) If a design analysis is used, then design documentation, as specified in Section 724.935(b)(4). The documentation must include information prepared by the owner or operator or provided by the control device manufacturer or vendor that describes the control device design in accordance with Section 724.935(b)(4)(C) and certification by the owner or operator that the control equipment meets the applicable specifications.

C) If performance tests are used, then a performance test plan as specified in Section 724.935(b)(3) and all test results.

D) Information as required by Section 724.935(c)(1) and Section 724.935(c)(2), as applicable.

E) An owner or operator shall record, on a semiannual basis, the information specified in subsections (e)(1)(E)(i) and (e)(1)(E)(ii) of this Section for those planned routine maintenance operations that would require the control device not to meet the requirements of Section

724.987(c)(1)(A), (c)(1)(B), or (c)(1)(C) of this Section, 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 724.987(c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable, due to planned routine maintenance.

F) An owner or operator shall record the information specified in subsections (e)(1)(F)(i) through (e)(1)(F)(iii) of this Section for those unexpected control device system malfunctions that would require the control device not to meet the requirements of Section 724.987 (c)(1)(A), (c)(1)(B), or (c)(1)(C) of this Section, as applicable.

i) The occurrence and duration of each malfunction of the control device system.

ii) The duration of each period during a malfunction when gases, vapors, or fumes are vented from the waste management unit through the closed-vent system to the control device while the control device is not properly functioning.

iii) Actions taken during periods of malfunction to restore a malfunctioning control device to its normal or usual manner of operation.

G) Records of the management of carbon removed from a carbon adsorption system conducted in accordance with Section 724.987(c)(3)(B).

f) The owner or operator of a tank, surface impoundment, or container exempted from standards in accordance with the provisions of Section 724.982(c) shall prepare and maintain the following records, as applicable:

1) For tanks, surface impoundments, or containers exempted under the hazardous waste organic concentration conditions specified in Section 724.982(c)(1) or (c)(2), the owner or operator shall record the information used for each waste determination (e.g., test results, measurements, calculations, and other documentation) in the facility operating log. If analysis results for waste samples are used for the waste determination, then the owner or operator shall record the date, time, and location that each waste sample is collected in accordance with applicable requirements of Section 724.983.

2) For tanks, surface impoundments, or containers exempted under the provisions of Section 724.982(c)(2)(G) or (c)(2)(H), the owner or operator shall record the identification number for the incinerator, boiler, or industrial furnace in which the hazardous waste is treated.

g) An owner or operator designating a cover as "unsafe to inspect and monitor" pursuant to Section 724.984(l) or Section 724.985(g) shall record in a log that is kept in the facility operating record the following information: the identification numbers for waste management units with covers that are designated as "unsafe to inspect and monitor", the explanation for each cover stating why the cover is unsafe to inspect and monitor, and the plan and schedule for inspecting and monitoring each cover.

h) The owner or operator of a facility that is subject to this Subpart and to the control device standards in 40 CFR 60, Subpart VV or 40 CFR 61, Subpart V, incorporated by reference in 35 Ill. Adm. Code 720.111, may elect to demonstrate compliance with the applicable Sections of this Subpart by documentation either pursuant to this Subpart, or pursuant to the provisions of 40 CFR 60, Subpart VV or 40 CFR 61, Subpart V, to the extent that the documentation required by 40 CFR 60 or 61 duplicates the documentation required by this Section.

i) For each tank or container not using air emission controls specified in Sections 724.984 through 724.987 in accordance with the conditions specified in Section 724.980(d), the owner or operator shall record and maintain the following information:

1) A list of the individual organic peroxide compounds manufactured at the facility that meet the conditions specified in Section 724.980(d)(1).

2) A description of how the hazardous waste containing the organic peroxide compounds identified pursuant to subsection (i)(1) of this Section are managed at the facility in tanks and containers. This description must include the following information:

   A) For the tanks used at the facility to manage this hazardous waste, sufficient information must be provided to describe the following for each tank: a facility identification number for the tank, the purpose and placement of this tank in the management train of this hazardous waste, and the procedures used to ultimately dispose of the hazardous waste managed in the tanks.

   B) For containers used at the facility to manage this hazardous waste, sufficient information must be provided to describe each tank: a facility identification number for the container or group of containers, the purpose and placement of this container or group of containers in the management train of this hazardous waste, and the procedures used to ultimately dispose of the hazardous waste managed in the containers.

3) An explanation of why managing the hazardous waste containing the organic peroxide compounds identified pursuant to subsection (i)(1) ~~above~~of this Section in the tanks or containers identified pursuant to subsection (i)(2) ~~above~~of this Section would create an undue safety hazard if the air emission controls specified in Sections 724.984 through 724.987 were installed and operated on these waste management units. This explanation must include the following information:

   A) For tanks used at the facility to manage this hazardous waste, sufficient information must be provided to explain the following: how use of the required air emission controls on the tanks would affect the tank design features and facility operating procedures currently used to prevent an undue safety hazard during management of this hazardous waste in the tanks; and why installation of safety devices on the required air emission controls, as allowed under ~~Section 724.984(g)~~this Subpart, would not address those situations in which evacuation of tanks

equipped with these air emission controls is necessary and consistent with good engineering and safety practices for handling organic peroxides.

B) For containers used at the facility to manage this hazardous waste, sufficient information must be provided to explain the following: how use of the required air emission controls on the tanks would affect the container design features and handling procedures currently used to prevent an undue safety hazard during management of this hazardous waste in the containers; and why installation of safety devices on the required air emission controls, as allowed under ~~Section 724.986(d)~~this Subpart, would not address those situations in which evacuation of containers equipped with these air emission controls is necessary and consistent with good engineering and safety practices for handling organic peroxides.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 724.990 Reporting Requirements

a) Each owner or operator managing hazardous waste in a tank, surface impoundment, or container exempted from using air emission controls under the provisions of Section 724.982(c) shall report to the Agency each occurrence when hazardous waste is placed in the waste management unit in noncompliance with the conditions specified in Section 724.982(c)(1) or (c)(2), as applicable. Examples of such occurrences include placing in the waste management unit a hazardous waste having an average VO concentration equal to or greater than ~~100~~500 ppmw at the point of waste origination or placing in the waste management unit a treated hazardous waste that fails to meet the applicable conditions specified in Section 724.982(c)(2)(A) through (c)(2)(~~E~~F). The owner or operator shall submit a written report within 15 calendar days of the time that the owner or operator becomes aware of the occurrence. The written report shall contain the U~~.~~S~~.~~ EPA identification number, the facility name and address, a description of the noncompliance event and the cause, the dates of the noncompliance, and the actions taken to correct the noncompliance and prevent re~~oc~~currence of the noncompliance. The report shall be signed and dated by an authorized representative of the owner or operator.

b) Each owner or operator using air emission controls on a tank in accordance with the requirements Section 724.984(c) shall report to the Agency each occurrence when hazardous waste is managed in the tank in

noncompliance with the conditions specified in Section 724.984~~(c)(1) through (c)(4)~~(b). The owner or operator shall submit a written report within 15 calendar days of the time that the owner or operator becomes aware of the occurrence. The written report shall contain the U~~.~~S~~.~~ EPA identification number, the facility name and address, a description of the noncompliance event and the cause, the dates of the noncompliance, and the actions taken to correct the noncompliance and prevent re~~oc~~currence of the noncompliance. The report shall be signed and dated by an authorized representative of the owner or operator.

c) Each owner or operator using a control device in accordance with the requirements of Section 724.987 shall submit a semiannual written report to the Agency excepted as provided for in subsection (d) ~~below~~of this Section. The report shall describe each occurrence during the previous 6-month period when either of the two following events occurs: a control device is operated continuously for 24 hours or longer in noncompliance with the applicable operating values defined in Section 724.935(c)(4) or ~~when~~ a flare is operated with visible emissions for five minutes or longer in a two-hour period, as defined in Section 724.933(d). The written report shall include the U~~.~~S~~.~~ EPA identification number, the facility name and address, and an explanation why the control device could not be returned to compliance within 24 hours, and actions taken to correct the noncompliance. The report shall be signed and dated by an authorized representative of the owner or operator.

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

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 724.991 Alternative Control Requirements for Tanks (Repealed)

~~a) This Section applies to owners and operators of tanks that elect to comply with Section 724.984(b)(2) or Section 724.984(b)(3).~~

~~1) The owner or operator that elects to comply with Section 724.984(b)(2) shall design, install, operate, and maintain a fixed~~

~~roof and internal floating roof that meet the requirements specified in 35 Ill. Adm. Code 725.991(a)(1)(A) through (a)(1)(I).~~

~~2) The owner or operator that elects to comply with Section 724.984(b)(3) shall design, install, operate, and maintain an external floating roof that meets the requirements specified in 35 Ill. Adm. Code 725.991(a)(2)(A) through (a)(2)(C).~~

~~3) The owner or operator may elect to comply with Section 264.984(b)(2) or (b)(3) using an alternative means of emission limitation as specified in 35 Ill. Adm. Code 725.991(a)(3).~~

~~b) The owner or operator shall inspect and monitor the control equipment in accordance with the following requirements:~~

~~1) For a tank equipped with a fixed roof and internal floating roof in accordance with the requirements of subsection (a)(1) above, the owner or operator shall perform the inspection and monitoring requirements specified in 35 Ill. Adm. Code 725.991(b)(1).~~

~~2) For a tank equipped with an external floating roof in accordance with the requirements of subsection (a)(2) above, the owner or operator shall perform the inspection and monitoring requirements specified in 35 Ill. Adm. Code 725.991(b)(2).~~

~~c) The owner or operator shall record the following information in the operating record in accordance with the requirements of Section 724.989(a)(1) and (a)(11):~~

~~1) For a tank equipped with a fixed roof and internal floating roof in accordance with the requirements of subsection (a)(1) above, the owner or operator shall record the information listed in 35 Ill. Adm. Code 725.991(c)(1).~~

~~2) For a tank equipped with an external floating roof in accordance with the requirements of subsection (a)(1) above, the owner or operator shall record the information listed in 35 Ill. Adm. Code 725.991(c)(2).~~

(Source: Repealed at 21 Ill. Reg. _____, effective _____)

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

SUBPART A: GENERAL PROVISIONS

SUBPART B: GENERAL FACILITY STANDARDS

SUBPART C: PREPAREDNESS AND PREVENTION

SUBPART D: CONTINGENCY PLAN AND EMERGENCY PROCEDURES

SUBPART E: MANIFEST SYSTEM, RECORDKEEPING AND REPORTING

SUBPART F: GROUNDWATER MONITORING

SUBPART G: CLOSURE AND POST-CLOSURE

SUBPART H: FINANCIAL REQUIREMENTS

SUBPART I: USE AND MANAGEMENT OF CONTAINERS

SUBPART J: TANK SYSTEMS

SUBPART K: SURFACE IMPOUNDMENTS

SUBPART L: WASTE PILES

SUBPART M: LAND TREATMENT

SUBPART N: LANDFILLS

SUBPART O: INCINERATORS

SUBPART BB: AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

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

SUBPART DD: CONTAINMENT BUILDINGS

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

SOURCE: Adopted in R81-22, 43 PCB 427, at 5 Ill. Reg. 9781, effective May 17, 1982; amended and codified in R81-22, 45 PCB 317, at 6 Ill. Reg. 4828, effective May 17, 1982; amended in R82-18, 51 PCB 831, at 7 Ill. Reg. 2518, effective February 22, 1983; amended in R82-19, 53 PCB 131, at 7 Ill. Reg. 14034, effective October 12, 1983; amended in R84-9, at 9 Ill. Reg. 11869, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 1085, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 14069, effective August 12, 1986; amended in R86-28 at 11 Ill. Reg. 6044, effective March 24, 1987; amended in R86-46 at 11 Ill. Reg. 13489, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19338, effective November 10, 1987; amended in R87-26 at 12 Ill. Reg. 2485, effective January 15, 1988; amended in R87-39 at 12 Ill. Reg. 13027, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 437, effective December 28, 1988; amended in R89-1 at 13 Ill. Reg. 18354, effective November 13, 1989; amended in R90-2 at 14 Ill. Reg. 14447, effective August 22, 1990; amended in R90-10 at 14 Ill. Reg. 16498, effective September 25, 1990; amended in R90-11 at 15 Ill. Reg. 9398, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14534, effective October 1, 1991; amended in R91-13 at 16 Ill. Reg. 9578, effective June 9, 1992; amended in R92-1 at 16 Ill. Reg. 17672, effective November 6, 1992; amended in R92-10 at 17 Ill. Reg. 5681, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20620, effective November 22, 1993; amended in R93-16 at 18 Ill. Reg. 6771, effective April 26, 1994; amended in R94-7 at 18 Ill. Reg. 12190, effective July 29, 1994; amended in R94-17 at 18 Ill. Reg. 17548, effective November 23, 1994; amended in R95-6 at 19 Ill. Reg. 9566, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 11078, effective August 1, 1996; amended in R96-10/R97-3/R97-5 at 21 Ill. Reg. _____, effective _____.

SUBPART B: GENERAL FACILITY STANDARDS

Section 725.112 Required Notices

a) Receipt from a foreign source.

1) The owner or operator of a facility that has arranged to receive hazardous waste from a foreign source must notify the Regional Administrator in writing at least four weeks in advance of the date the waste is expected to arrive at the facility. Notice of subsequent shipments of the same waste from the same foreign source is not required.

2) The owner or operator of a recovery facility that has arranged to receive hazardous waste subject to 35 Ill. Adm. Code 722.Subpart H must provide a copy of the tracking document bearing all required signatures to the notifier, to the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 401 M St., SW, Washington, DC 20460; to the Bureau of Land, Division of Land Pollution Control, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, IL 62794-9276; and to the competent authorities of all other concerned countries within three working days of receipt of the shipment. The original of the signed tracking document must be maintained at the facility for at least three years.

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

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

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 725.113 General Waste Analysis

a) Waste analysis:

1) Before an owner or operator treats, stores, or disposes of any hazardous wastes, or non-hazardous wastes if applicable under

Section 725.213(d), the owner or operator shall obtain a detailed chemical and physical analysis of a representative sample of the wastes. At a minimum, the analysis must contain all the information that must be known to treat, store, or dispose of the waste in accordance with this Part and 35 Ill. Adm. Code 728.

2) The analysis may include data developed under 35 Ill. Adm. Code 721 and existing published or documented data on the hazardous waste or on waste generated from similar processes.

BOARD NOTE: For example, the facility's record of analyses performed on the waste before the effective date of these regulations or studies conducted on hazardous waste generated from processes similar to that which generated the waste to be managed at the facility may be included in the data base required to comply with subsection (a)(1) ~~above~~of this Section, except as otherwise specified in 35 Ill. Adm. Code 728.107(b) and (c). The owner or operator of an off-site facility may arrange for the generator of the hazardous waste to supply part or all of the information required by subsection (a)(1) ~~above~~of this Section. If the generator does not supply the information and the owner or operator chooses to accept a hazardous waste, the owner or operator is responsible for obtaining the information required to comply with this Section.

3) The analysis must be repeated as necessary to ensure that it is accurate and up to date. At a minimum, the analysis must be repeated:

A) When the owner or operator is notified or has reason to believe that the process or operation generating the hazardous waste, or non-hazardous waste if applicable under Section 725.213(d), has changed; and

B) For off-site facilities, when the results of the inspection required in subsection (a)(4) ~~below~~of this Section indicate that the hazardous waste received at the facility does not match the waste designated on the accompanying manifest or shipping paper.

4) The owner or operator of an off-site facility shall inspect and, if necessary, analyze each hazardous waste movement received at the facility to determine whether it matches the identity of the waste specified on the accompanying manifest or shipping paper.

b) The owner or operator shall develop and follow a written waste analysis plan that describes the procedures that the owner or operator will carry out to comply with subsection (a) ~~above~~of this Section. The owner or operator shall keep this plan at the facility. At a minimum, the plan must specify:

1) The parameters for which each hazardous waste, or non-hazardous waste if applicable under Section 725.213(d), will be analyzed and the rationale for the selection of these parameters (i.e., how analysis for these parameters will provide sufficient information on the waste's properties to comply with subsection (a) ~~above~~of this Section.

2) The test methods that will be used to test for these parameters.

3) The sampling method that will be used to obtain a representative sample of the waste to be analyzed. A representative sample may be obtained using either:

A) One of the sampling methods described in 35 Ill. Adm. Code 721.Appendix A, or

B) An equivalent sampling method.

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

4) The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up-to-date.

5) For off-site facilities, the waste analyses that hazardous waste generators have agreed to supply.

6) Where applicable, the methods that will be used to meet the additional waste analysis requirements for specific waste management methods, as specified in Sections 725.300, 725.325, 725.352, 725.373, 725.414, 725.441, 725.475, 725.502, 725.934(d), 725.963(d), and 725.984, and 35 Ill. Adm. Code 728.107.

7) For surface impoundments exempted from land disposal restrictions under 35 Ill. Adm. Code 728.104(a), the procedures and schedules for:

A) The sampling of impoundment contents;

B) The analysis of test data; and

C) The annual removal of residues that are not delisted under 35 Ill. Adm. Code 720.122 or that exhibit a characteristic of hazardous waste and either:

i) Do not meet the applicable treatment standards of 35 Ill. Adm. Code 728.Subpart D, or

ii) Where no treatment standards have been established: Such residues are prohibited from land disposal under 35 Ill. Adm. Code 728.132 or 728.139.

8) For owners and operators seeking an exemption to the air emission standards of 724.Subpart CC ~~of this part~~ in accordance with Section 725.983:

A) ~~T~~If direct measurement is used for the waste determination, the procedures and schedules for waste sampling and analysis, and the analysis of test data to verify the exemption.

B) ~~Each generator's notice and certification of the volatile organic concentration in the waste if the waste is received from offsite~~If knowledge of the waste is used for the waste determination, any information prepared by the facility owner or operator, or by the generator of the waste if the waste is received form off-site, that is used as the basis for knowledge of the waste.

c) For off-site facilities, the waste analysis plan required in subsection (b) ~~above~~of this Section must also specify the procedures that will be used to inspect and, if necessary, analyze each movement of hazardous waste received at the facility to ensure that it matches the identity of the waste designated on the accompanying manifest or shipping paper. At a minimum, the plan must describe:

1) The procedures that will be used to determine the identity of each movement of waste managed at the facility; and

2) The sampling method that will be used to obtain a representative sample of the waste to be identified if the identification method includes sampling.

3) The procedures that the owner or operator of an off-site landfill receiving containerized hazardous waste will use to determine whether a hazardous waste generator or treater has added a biodegradable sorbent to the waste in the container.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

SUBPART E: MANIFEST SYSTEM, RECORDKEEPING AND REPORTING

Section 725.171 Use of Manifest System

a) If a facility receives hazardous waste accompanied by a manifest, the owner or operator or his agent must:

1) Sign and date each copy of the manifest to certify that the hazardous waste covered by the manifest was received;

2) Note any significant discrepancies in the manifest, as defined in Section 725.172(a), on each copy of the manifest;

BOARD NOTE: An owner or operator of a facility whose procedures under Section 725.113(c) include waste analysis need not perform that analysis before signing the manifest and giving it to the transporter. Section 725.172(b), however, requires the owner or operator to report any unreconciled discrepancy discovered during later analysis.

3) Immediately give the transporter at least one copy of the signed manifest;

4) Send a copy of the manifest to each of the generator and the Agency within 30 days of the date of delivery; and

5) Retain at the facility a copy of each manifest for at least three years from the date of delivery.

b) If a facility receives from a rail or water (bulk shipment) transporter hazardous waste that is accompanied by a shipping paper containing all the information required on the manifest (excluding the U.S. EPA

identification numbers, generator's certification and signatures), the owner or operator or its agent must:

1) Sign and date each copy of the manifest or shipping paper (if the manifest has not been received) to certify that the hazardous waste covered by the manifest or shipping paper was received;

2) Note any significant discrepancies, as defined in Section 725.172(a), in the manifest or shipping paper (if the manifest has not been received) on each copy of the manifest or shipping paper;

BOARD NOTE: The owner or operator of a facility whose procedures under Section 725.113(c) include waste analysis need not perform that analysis before signing the shipping paper and giving it to the transporter. Section 725.172(b), however, requires reporting an unreconciled discrepancy discovered during later analysis.

3) Immediately give the rail or water (bulk shipment) transporter at least one copy of the manifest or shipping paper (if the manifest has not been received);

4) Send a copy of the signed and dated manifest to the generator and to the Agency within 30 days after the delivery; however, if the manifest has not been received within 30 days after delivery, the owner or operator, or his agent, must send a copy of the shipping paper signed and dated to the generator; and

BOARD NOTE: 35 Ill. Adm. Code 722.123(c) requires the generator to send three copies of the manifest to the facility when hazardous waste is sent by rail or water (bulk shipment).

5) Retain at the facility a copy of the manifest and shipping paper (if signed in lieu of the manifest at the time of delivery) for at least three years from the date of delivery.

c) Whenever a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility must comply with the requirements of 35 Ill. Adm. Code 722.

BOARD NOTE: The provisions of 35 Ill. Adm. Code 722.134 are applicable to the on-site accumulation of hazardous wastes by generators. Therefore, the provisions of 35 Ill. Adm. Code 722.134 apply only to

owners or operators that are shipping hazardous waste that they generated at that facility.

d) Within three working days of the receipt of a shipment subject to 35 Ill. Adm. Code 722.Subpart H, the owner or operator of the facility must provide a copy of the tracking document bearing all required signatures to the notifier; to the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 401 M St., SW, Washington, DC 20460; to the Bureau of Land, Division of Land Pollution Control, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, IL 62794-9276; and to competent authorities of all other concerned countries. The original copy of the tracking document must be maintained at the facility for at least three years from the date of signature.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

SUBPART I: USE AND MANAGEMENT OF CONTAINERS

Section 725.278 Air Emission Standards

The owner or operator shall manage all hazardous waste placed in a container in accordance with the requirements of 724.Subparts AA, BB, and CC.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

SUBPART K: SURFACE IMPOUNDMENTS

Section 725.331 Air Emission Standards

The owner or operator shall manage all hazardous waste placed in a surface impoundment in accordance with the requirements of 724.Subparts BB and CC.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

SUBPART N: LANDFILLS

Section 725.414 Special Requirements for Liquid Wastes

a) This subsection corresponds with 40 CFR 265.314(a), which pertains to the placement of bulk or non-containerized liquid waste or waste

containing free liquids in a landfill prior to May 8, 1985. This statement maintains structural consistency with U~~.~~S~~.~~ EPA rules.

b) The placement of bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids (whether or not sorbents have been added) in any landfill is prohibited.

c) Containers holding free liquids must not be placed in a landfill unless~~;~~:

1) All free-standing liquid:

A) has been removed by decanting or other methods;

B) has been mixed with sorbent or solidified so that free-standing liquid is no longer observed; or

C) has been otherwise eliminated; or

2) The container is very small, such as an ampule; or

3) The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or

4) The container is a lab pack as defined in Section 724.416 and is disposed of in accordance with Section 724.416.

d) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 9095 (Paint Filter Liquids Test), as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", U~~.~~S~~.~~ EPA Publication No. SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111.

e) The placement of any liquids that is not a hazardous waste in a landfill is prohibited (35 Ill. Adm. Code 729.311).

f) Sorbents used to treat free liquids to be disposed of in landfills must be nonbiodegradable. Nonbiodegradable sorbents are: materials listed or described in subsection (f)(1) ~~below~~of this Section; materials that pass one of the tests in subsection (f)(2) ~~below~~of this Section; or materials that are determined by Board to be nonbiodegradable through the 35 Ill. Adm. Code 106 adjusted standard process.

1) Nonbiodegradable sorbents are:

A) Inorganic minerals, other inorganic materials, and elemental carbon (e.g., aluminosilicates, clays, smectites, Fuller's earth, bentonite, calcium bentonite, montmorillonite, calcined montmorillonite, kaolinite, micas (illite), vermiculites, zeolites; calcium carbonate (organic free limestone); oxides/hydroxides, alumina, lime, silica (sand), diatomaceous earth; perlite (volcanic glass); expanded volcanic rock; volcanic ash; cement kiln dust; fly ash; rice hull ash; activated charcoal/activated carbon); or

B) High molecular weight synthetic polymers (e.g., polyethylene, high density polyethylene (HDPE), polypropylene, polystyrene, polyurethane, polyacrylate, polynorborene, polyisobutylene, ground synthetic rubber, cross-linked allylstyrene and tertiary butyl copolymers). This does not include polymers derived from biological material or polymers specifically designed to be degradable; or

C) Mixtures of these nonbiodegradable materials.

2) Tests for nonbiodegradable sorbents.

A) The sorbent material is determined to be nonbiodegradable under ASTM Method G21-70 (1984a)--"Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi", incorporated by reference in 35 Ill. Adm. Code 720.111; ~~or~~

B) The sorbent material is determined to be nonbiodegradable under ASTM Method G22-76 (1984b)--"Standard Practice for Determining Resistance of Plastics to Bacteria", incorporated by reference in 35 Ill. Adm. Code 720.111; or

C) The sorbent material is determined to be non-biodegradable under OECD test 301B (CO_2 Evolution (Modified Sturm Test)), incorporated by reference in 35 Ill. Adm. Code 720.111.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

SUBPART AA: AIR EMISSION STANDARDS FOR PROCESS VENTS

Section 725.930 Applicability

a) This Subpart applies to owners and operators of facilities that treat, store or dispose of hazardous wastes (except as provided in Section 725.101).

b) Except for Sections 725.934(d) and ~~725.935~~(e), this Subpart applies to process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations that manage hazardous wastes with organic concentrations of at least 10 ppmw (parts per million by weight), if these operations are conducted in one of the following:

1) ~~U~~A unit~~s~~ that ~~are~~is subject to the permitting requirements of 35 Ill. Adm. Code 702, 703, and 705; or

2) ~~H~~A unit (including a hazardous waste recycling unit~~s~~) that ~~are~~is not exempt from permitting under the provisions of 35 Ill. Adm. Code 262.34(a) (i.e., a hazardous waste recycling unit that is not a 90-day tank or container) and that is located on a hazardous waste management ~~facilities~~facility otherwise subject to the permitting requirements of 35 Ill. Adm. Code 702, 703, and 705.

BOARD NOTE: The requirements of Sections 725.932 through 725.936 apply to process vents on hazardous waste recycling units previously exempt under 35 Ill. Adm. Code 721.106(c)(1). Other exemptions under 35 Ill. Adm. Code 721.104~~, 722.134~~ and 725.101(c) are not affected by these requirements.

c) Agency decisions pursuant to this Part must be made in writing, are in the nature of permit decisions pursuant to Section 39 of the Environmental Protection Act and may be appealed to the Board pursuant to 35 Ill. Adm. Code 105.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

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 shall comply with the provisions of this Section.

2) The owner or operator of an existing facility that cannot install a closed-vent system and control device to comply with the provisions of this Subpart on the effective date that the facility becomes subject to the provisions of this Subpart shall prepare an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The controls must be installed as soon as possible, but the implementation schedule may allow up to ~~18~~30 months after the effective date that the facility becomes subject to this Subpart for installation and startup. All units that begin operation after December 21, 1990, must comply with the rules immediately (i.e., must have control devices installed and operating on startup of the affected unit); the 2-year implementation schedule does not apply to these units.

b) A control device involving vapor recovery (e.g., a condenser or adsorber) must be designed and operated to recover the organic vapors vented to it with an efficiency of 95 weight percent or greater unless the total organic emission limits of Section 725.932(a)(1) for all affected process vents is attained at an efficiency less than 95 weight percent.

c) An enclosed combustion device (e.g., a vapor incinerator, boiler, or process heater) must be designed and operated to reduce the organic emissions vented to it by 95 weight percent or greater; to achieve a total organic compound concentration of 20 ppmv, expressed as the sum of the actual compounds, not carbon equivalents, on a dry basis corrected to ~~3~~three percent oxygen; or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760° C. If a boiler or process heater is used as the control device, then the vent stream must be introduced into the flame combustion zone of the boiler or process heater.

d) Flares

1) A flare must be designed for and operated with no visible emissions as determined by the methods specified in subsection (e)(1) ~~below~~of this Section except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

2) A flare must be operated with a flame present at all times, as determined by the methods specified in subsection (f)(2)(c) ~~below~~of this Section.

3) A flare must be used only if the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted, or if the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted must be determined by the methods specified in subsection (e)(2) ~~below~~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) ~~below~~of this Section, less than 18.3 m/s (60 ft/s), except as provided in subsections (d)(4)(B) and (d)(4)(C) ~~below~~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) ~~below~~of this Section, equal to or greater than 18.3 m/s (60 ft/s) but less than 122 m/s (400 ft/s) is allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1000 Btu/scf).

C) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) ~~below~~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) ~~below~~of this Section.

6) A flare used to comply with this Section must be steam-assisted, air-assisted, or nonassisted.

e) Compliance determination and equations.

1) Reference Method 22 in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111, must be used to determine the compliance of a flare with the visible emission provisions of this Subpart. The observation period is 2 hours and must be used according to Method 22.

2) The net heating value of the gas being combusted in a flare must be calculated using the following equation:

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

Where:

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

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

SX_i means the sum of the values of X for each component i, from i = 1 to n.

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

H_i is the net heat of combustion of sample component i, kcal/gmol at 25° C and 760 mm Hg. The heats of combustion must be determined using ASTM D 2382-88, incorporated by reference in 35 Ill. Adm. Code 720.111, if published values are not available or cannot be calculated.

3) The actual exit velocity of a flare must be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

4) The maximum allowed velocity in m/s, V for a flare complying with subsection (d)(4)(C) ~~above~~of this Section must be determined by the following equation:

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

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

Where:

Log_{10} means logarithm to the base 10

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

5) The maximum allowed velocity in m/s, V for an air-assisted flare must be determined by the following equation:

$$V = 8.706 + 0.7084\,H_T$$

Where:

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

f) The owner or operator shall monitor and inspect each control device required to comply with this Section to ensure proper operation and maintenance of the control device by implementing the following requirements:

1) Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow indicator that provides a record of vent stream flow from each affected process vent to the control device at least once every hour. The flow indicator sensor must be installed in the vent stream at the nearest feasible point to the control device inlet but before being combined with other vent streams.

2) Install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor control device operation as specified below:

A) For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device must have accuracy of ~~± 1 percent~~ ± 1% of the temperature being monitored in ° C or ± 0.5° 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 ~~± 1 percent~~ ± 1% of the temperature being monitored in ° C or ± 0.5° 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 ~~± 1 percent~~ ± 1% of the temperature being monitored in ° C or ± 0.5° 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~~s~~ 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 ~~at two locations and have~~with an accuracy of ~~± 1 percent~~ ±1% of the temperature being monitored in degrees Celsius (° C) or ±0.5° C, whichever is greater. ~~One~~The temperature sensor must be installed at a location in the exhaust vent stream from the condenser~~, and a second temperature sensor must be installed at a location in the coolant fluid exiting the condenser~~ exit (i.e., product side).

G) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly in the control device, either:

i) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the carbon bed; or

ii) A monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle.

3) Inspect the readings from each monitoring device required by subsections (f)(1) and (f)(2) ~~above~~of this Section at least once each operating day to check control device operation and, if necessary, immediately implement the corrective measures necessary to ensure the control device operates in compliance with the requirements of this Section.

g) An owner or operator using a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon at a regular, predetermined time interval that is no longer than the carbon service life established as a requirement of Section 725.935(b)(4)(C)(vi).

h) An owner or operator using a carbon adsorption system, such as a carbon canister, that does not regenerate the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon on a regular basis by using one of the following procedures:

1) Monitor the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system on a regular schedule, and replace the existing carbon with fresh carbon immediately when carbon breakthrough is indicated. The monitoring frequency must be daily or at an interval no greater than 20 ~~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) ~~Closed vent systems.~~A closed vent system must meet either of the following design requirements:

1) ~~C~~A closed-vent system~~s~~ must be designed ~~for and~~to operate~~d~~ with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background ~~and by visual inspections~~, as determined by the methods specified at Section 725.934(b)~~.~~, and by visual inspections; or

2) ~~Closed-vent systems must be monitored to determine compliance with this Section during the initial leak detection monitoring, which must be conducted by the date that the facility becomes subject to the provisions of this Section annually, and at other times as specified by the Agency pursuant to Section 725.930(c). For the annual leak detection monitoring after the initial leak detection monitoring, the owner or operator is not required to monitor those closed-vent system components that continuously~~

~~operate in vacuum service or those closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of metal pipe or a bolted and gasketed pipe flange).~~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.

~~3) Detectable emissions, as indicated by an instrument reading greater than 500 ppm and visual inspections, must be controlled as soon as practicable, but not later than 15 calendar days after the emission is detected.~~

~~4) A first attempt at repair must be made no later than 5 calendar days after the emission is detected.~~

k) The owner or operator shall monitor and inspect each closed-vent system required to comply with this Section to ensure proper operation and maintenance of the closed-vent system by implementing the following requirements:

1) Each closed-vent system that is used to comply with subsection (j)(1) of this Section shall be inspected and monitored in accordance with the following requirements:

A) An initial leak detection monitoring of the closed-vent system shall be conducted by the owner or operator on or before the date that the system becomes subject to this Section. The owner or operator shall monitor the closed-vent system components and connections using the procedures specified in Section 725.934(b) to demonstrate that the closed-vent system operates with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background.

B) After initial leak detection monitoring required in subsection (k)(1)(A) of this Section, the owner or operator shall inspect and monitor the closed-vent system as follows:

i) Closed-vent system joints, seams, or other connections that are permanently or semi-

permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) must be visually inspected at least once per year to check for defects that could result in air pollutant emissions. The owner or operator shall monitor a component or connection using the procedures specified in Section 725.934(b) to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted).

ii) Closed-vent system components or connections other than those specified in subsection (k)(1)(B)(i) of this Section must be monitored annually and at other times as requested by the Regional Administrator, except as provided for in subsection (n) of this Section, using the procedures specified in Section 725.934(b) to demonstrate that the components or connections operate with no detectable emissions.

C) In the event that a defect or leak is detected, the owner or operator shall repair the defect or leak in accordance with the requirements of subsection (k)(3) of this Section.

D) The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in Section 725.935.

2) Each closed-vent system that is used to comply with subsection (j)(2) of this Section must be inspected and monitored in accordance with the following requirements:

A) The closed-vent system must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork or piping or loose connections.

B) The owner or operator shall perform an initial inspection of the closed-vent system on or before the date that the system becomes subject to this Section. Thereafter, the

owner or operator shall perform the inspections at least once every year.

C) In the event that a defect or leak is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k)(3) of this Section.

D) The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in Section 725.935.

3) The owner or operator shall repair all detected defects as follows:

A) Detectable emissions, as indicated by visual inspection or by an instrument reading greater than 500 ppmv above background, must be controlled as soon as practicable, but not later than 15 calendar days after the emission is detected, except as provided for in subsection (k)(3)(C) of this Section.

B) A first attempt at repair must be made no later than five calendar days after the emission is detected.

C) Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment must be completed by the end of the next process unit shutdown.

D) The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in Section 725.935.

~~k~~l) ~~C~~A closed-vent system~~s~~ ~~and~~or control device~~s~~ used to comply with provisions of this Subpart must be operated at all times when emissions may be vented to ~~them~~it.

~~l~~m) The owner or operator using a carbon adsorption system to control air pollutant emissions shall document that all carbon removed that is a hazardous waste and that is removed from the control device is managed in one of the following manners, regardless of the volatile organic concentration of the carbon:

1) It is regenerated or reactivated in a thermal treatment unit that ~~is permitted under 35 Ill. Adm. Code 724.Subpart X or 725.Subpart P,~~meets one of the following:

A) The owner or operator of the unit has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of 35 Ill. Adm. Code 724.Subpart X; or

B) The unit is equipped with and operating air emission controls in accordance with the applicable requirements of 725.Subparts AA and CC or 35 Ill. Adm. Code 724; or

C) The unit is equipped with and operating air emission controls in accordance with a national emission standard for hazardous air pollutants under 40 CFR 61 or 40 CFR 63.

2) It is incinerated ~~by a process that is permitted under 35 Ill. Adm. Code 724.Subpart O or 725.Subpart O, or~~in a hazardous waste incinerator for which the owner or operator has done either of the following:

A) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of 35 Ill. Adm. Code 724.Subpart O, or

B) The owner or operator has designed and operates the incinerator in accordance with the interim status requirements of 725.Subpart O.

3) It is burned in a boiler or industrial furnace ~~that is permitted under 35 Ill. Adm. Code 726.Subpart H.~~for which the owner or operator has done either of the following:

A) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of 35 Ill. Adm. Code 726.Subpart H, or

B) The owner or operator has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of 35 Ill. Adm. Code 726.Subpart H.

n) Any components of a closed-vent system that are designated, as described in Section 725.935(c)(9), as unsafe to monitor are exempt from the requirements of subsection (k)(1)(B)(ii) of this Section if both of the following conditions are fulfilled:

1) The owner or operator of the closed-vent system has determined that the components of the closed-vent system are unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with subsection (k)(1)(B)(ii) of this Section; and

2) The owner or operator of the closed-vent system adheres to a written plan that requires monitoring the closed-vent system components using the procedure specified in subsection (k)(1)(B)(ii) of this Section as frequently as practicable during safe-to-monitor times.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 725.934 Test Methods and Procedures

a) Each owner or operator subject to the provisions of this Subpart shall comply with the test methods and procedures requirements provided in this Section

b) When a closed-vent system is tested for compliance with no detectable emissions, as required in Section 725.933(~~j~~k), the test must comply with the following requirements:

1) Monitoring must comply with Reference Method 21 in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111.

2) The detection instrument must meet the performance criteria of Reference Method 21.

3) The instrument must be calibrated before use on each day of its use by the procedures specified in Reference Method 21.

4) Calibration gases must be:

A) Zero air (less than 10 ppm of hydrocarbon in air).

B) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.

5) The background level must be determined as set forth in Reference Method 21.

6) The instrument probe must be traversed around all potential leak interfaces as close to the interface as possible, as described in Reference Method 21.

7) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

c) Performance tests to determine compliance with Section 725.932(a) and with the total organic compound concentration limit of Section 725.933(c) must comply with the following:

1) Performance tests to determine total organic compound concentrations and mass flow rates entering and exiting control devices must be conducted and data reduced in accordance with the following reference methods and calculation procedures:

A) Method 2 in 40 CFR 60 for velocity and volumetric flow rate.

B) Method 18 in 40 CFR 60 for organic content.

C) Each performance test must consist of three separate runs, each run conducted for at least 1 hour under the conditions that exist when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. For the purpose of determining total organic compound concentrations and mass flow rates, the average of results of all runs applies. The average must be computed on a time-weighed basis.

D) Total organic mass flow rates must be determined by the following equation:

~~F = K * Q * SUM(Ci * MWi)~~

~~Where:~~

~~F is the total organic mass flow rate, kg/h.~~

~~K = 4.16 E -8, conversion factor for molar volume, kg-mol/cubic m, at 293 K and 760 mm Hg.~~

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

~~SUM(Xi) means the sum of the values of X for each component i, from i = 1 to n.~~

~~n = number of organic compounds in the vent gas.~~

~~Ci is the organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Method 18 in 40 CFR 60.~~

~~MWi is the molecular weight of organic compound i in the vent gas, kg/kg-mol.~~

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

Where:

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

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

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

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

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

0.0416 = The conversion factor for molar volume, kg-mol/m^3, 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~~HOURS

Where:

A is total organic emission rate, kg/y.

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

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

F) Total organic emissions from all affected process vents at the facility must be determined by summing the hourly total organic mass emissions rates (F as determined in subsection (c)(1)(D) of this Section) and by summing the annual total organic mass emission rates (A as determined in subsection (c)(1)(E) of this Section) for all affected process vents at the facility.

2) The owner or operator shall record such process information as is necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown and malfunction do not constitute representative conditions for the purpose of a performance test.

3) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

A) Sampling ports adequate for the test methods specified in subsection (c)(1) of this Section.

B) Safe sampling platform(s).

C) Safe access to sampling platform(s).

D) Utilities for sampling and testing equipment.

4) For the purpose of making compliance determinations, the time-weighted average of the results of the three runs must apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions or other circumstances beyond the owner or operator's control, compliance may, upon the Agency's approval, be determined using the average of the results of the two other runs.

d) To show that a process vent associated with a hazardous waste distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation is not subject to the requirements of this Subpart, the owner or operator shall make an initial determination that the time-weighted, annual average total organic concentration of the waste managed by the waste management unit is less than 10 ppmw using one of the following two methods:

1) Direct measurement of the organic concentration of the waste using the following procedures:

A) The owner or operator shall take a minimum of four grab samples of waste for each wastestream managed in the affected unit under process conditions expected to cause the maximum waste organic concentration.

B) For waste generated onsite, the grab samples must be collected at a point before the waste is exposed to the atmosphere such as in an enclosed pipe or other closed system that is used to transfer the waste after generation to the first affected distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation. For waste generated offsite, the grab samples must be collected at the inlet to the first waste management unit that receives the waste provided the waste has been transferred to the facility in a closed system such as a tank truck and the waste is not diluted or mixed with other waste.

C) Each sample must be analyzed and the total organic concentration of the sample must be computed using Method 9060 or 8240 of SW-846, ~~(~~incorporated by reference under 35 Ill. Adm. Code 720.111.

D) The arithmetic mean of the results of the analyses of the four samples apply for each wastestream managed in the unit in determining the time-weighted, annual average total organic concentration of the waste. The time-weighted average is to be calculated using the annual quantity of each waste stream processed and the mean organic concentration of each wastestream managed in the unit.

2) Using knowledge of the waste to determine that its total organic concentration is less than 10 ppmw. Documentation of the waste determination is required. Examples of documentation that must be used to support a determination under this subsection (d)(2) include:

A) Production process information documenting that no organic compounds are used~~.~~;

B) Information that the waste is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to generate a wastestream having a total organic content less than 10 ppmw~~,~~; or

C) Prior speciation analysis results on the same wastestream where it is documented that no process changes have occurred since that analysis that could affect the waste total organic concentration.

e) The determination that distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations which manage hazardous wastes with time-weighted, annual average total organic concentrations less than 10 ppmw must be made as follows:

1) By the effective date that the facility becomes subject to the provisions of this Subpart or by the date when the waste is first managed in a waste management unit, whichever is later; and

2) For continuously generated waste, annually; or

3) Whenever there is a change in the waste being managed or a change in the process that generates or treats the waste.

f) When an owner or operator and the Agency do not agree on whether a distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation manages a hazardous waste with organic concentrations of at least 10 ppmw based on knowledge of the waste, the procedures in Method 8240 in SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, must be used to resolve the dispute.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 725.935 Recordkeeping Requirements

a) Compliance Required.

1) Each owner or operator subject to the provisions of this Subpart shall comply with the recordkeeping requirements of this Section.

2) An owner or operator of more than one hazardous waste management unit subject to the provisions of this Subpart may comply with the recordkeeping requirements for these hazardous waste management units in one recordkeeping system if the system identifies each record by each hazardous waste management unit.

b) Owners and operators shall record the following information in the facility operating record:

1) For 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.

2) Up-to-date documentation of compliance with the process vent standards in Section 725.932, including:

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 date 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:

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:

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 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 (incorporated by reference in 35 Ill. Adm. Code 720.111) 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 (vii)~~, below~~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.

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:

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 (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)~~,~~ ~~above~~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)~~,~~ ~~above~~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)~~,~~ ~~above~~of this Section.

D) For a boiler or process heater, any period when:

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)~~, above~~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)~~, above~~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)~~, above~~of this Section.

G) For a condenser that complies with Section 725.933(f)(2)(F)(ii), any period when:

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)~~, above~~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)~~, above~~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 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)~~, above~~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 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)~~, above~~of this Section.

5) Explanation for each period recorded under subsection (c)(4)~~, above,~~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) shall 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.

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 Method 21 of 40 CFR 60, appendix A, 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 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 (~~8~~10)~~,~~ ~~above~~of this Section~~,~~ ~~need be kept only 3~~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 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 21 Ill. Reg. _____, effective _____)

SUBPART BB: AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

Section 725.950 Applicability

a) The regulations in this Subpart apply to owners and operators of facilities that treat, store, or dispose of hazardous wastes (except as provided in Section 725.101).

b) Except as provided in Section 725.964(~~j~~k), this Subpart applies to equipment that contains or contacts hazardous wastes with organic concentrations of at least 10 ~~percent~~% by weight that are managed in one of the following:

1) ~~U~~A unit~~s~~ that ~~are~~is subject to the RCRA permitting requirements of 35 Ill. Adm. Code 702, 703, and 705~~, or~~;

2) ~~H~~A unit (including a hazardous waste recycling unit~~s~~) that ~~are~~is not exempt from permitting under the provisions of 35 Ill. Adm. Code 722.134(a) (i.e., a hazardous waste recycling unit that is not a "90-day" tank or container) and that is located ~~on~~at a hazardous waste management facilit~~ies~~y otherwise subject to the permitting requirements of 35 Ill. Adm. Code 702, 703, and 705~~.~~; or

3) A unit that is exempt from permitting under the provisions of 35 Ill. Adm. Code 722.134(a) (i.e., a "90-day" tank or container).

c) Each piece of equipment to which this Subpart applies must be marked in such a manner that it can be distinguished readily from other pieces of equipment.

d) Equipment that is in vacuum service is excluded from the requirements of Sections 725.952 to 725.960, if it is identified as required in Section 725.964(g)(5).

e) Equipment that contains or contacts hazardous waste with an organic concentration of at least 10% by weight for a period of less than 300 hours per calendar year is excluded from the requirements of Sections 265.952 through 265.960 if it is identified as required in Section 725.964(g)(6).

BOARD NOTE: The requirements of Sections 725.952 through 725.964 apply to equipment associated with hazardous waste recycling units previously exempt under 35 Ill. Adm. Code 721.106(c)(1). Other exemptions under 35 Ill. Adm. Code 721.104~~, 722.134~~ and 725.101(e) are not affected by these requirements.

~~e~~f) Agency decisions pursuant to this Part must be made in writing, are in the nature of permit decisions pursuant to Section 39 of the Environmental Protection Act and may be appealed to the Board pursuant to 35 Ill. Adm. Code 105.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 725.955 Standards: Sampling Connecting Systems

a) Each sampling connection system must be equipped with a closed-purge, closed-loop, ~~system~~ 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, ~~system~~ or closed-vent system as required in subsection (a) of this Section must meet one of the following requirements:

1) Return the purged ~~hazardous waste stream~~process fluid directly to the ~~hazardous waste management~~ process line ~~with no detectable emissions to atmosphere~~; ~~or~~

2) Collect and recycle the purged ~~hazardous waste stream with no detectable emissions to atmosphere~~process fluid; or

3) Be designed and operated to capture and transport all the purged ~~hazardous wastestream~~process fluid to a waste management unit that complies with the applicable requirements of Sections 725.985 through 725.987 or a control device that complies with the requirements of Section 725.960.

c) In-situ sampling systems and sampling systems without purges are exempt from the requirements of subsections (a) and (b) of this Section.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 725.958 Standards: Pumps, Valves, Pressure Relief Devices, 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 5 days by the method specified in Section 725.963(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 725.959.

2) The first attempt at repair must be made no later than ~~5~~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 725.957(e).

e) Any connector that is inaccessible or is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined) is exempt from the monitoring requirements of subsection (a) of this Section and from the recordkeeping requirements of Section 725.964.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 725.964 Recordkeeping Requirements

a) Lumping Units

1) Each owner or operator subject to the provisions of this Subpart shall comply with the recordkeeping requirements of this Section.

2) An owner or operator of more than one hazardous waste management unit subject to the provisions of this Subpart may comply with the recordkeeping requirements for these hazardous waste management units in one recordkeeping system if the system identifies each record by each hazardous waste management unit.

b) Owners and operators shall record the following information in the facility operating record:

1) For each piece of equipment to which this Subpart applies:

A) Equipment identification number and hazardous waste management unit identification.

B) Approximate locations within the facility (e.g., identify the hazardous waste management unit on a facility plot plan).

C) Type of equipment (e.g., a pump or pipeline valve).

D) Percent-by-weight total organics in the hazardous wastestream at the equipment.

E) Hazardous waste state at the equipment (e.g. gas/vapor or liquid).

F) Method of compliance with the standard (e.g. "monthly leak detection and repair" or "equipped with dual mechanical seals").

2) ~~f~~For facilities ~~than~~ than comply with the provisions of Section 725.933(a)(2), an implementation schedule as specified in that Section.

3) Where an owner or operator chooses to use test data to demonstrate the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan as specified in Section 725.935(b)(3).

4) Documentation of compliance with Section 725.960, including the detailed design documentation or performance test results specified in Section 725.935(b)(4).

c) When each leak is detected as specified in Sections 725.952, 725.953, 725.957 or 725.958, the following requirements apply:

1) A weatherproof and readily visible identification, marked with the equipment identification number, the date evidence of a potential leak was found in accordance with Section 725.958(a), and the date the leak was detected, must be attached to the leaking equipment.

2) The identification on equipment except on a valve, may be removed after it has been repaired.

3) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in Section 725.957(c) and no leak has been detected during those 2 months.

d) When each leak is detected as specified in Sections 725.952, 725.953, 725.957 or 725.958, the following information must be recorded in an inspection log and must be kept in the facility operating record:

1) The instrument and operator identification numbers and the equipment identification number.

2) The date evidence of a potential leak was found in accordance with Section 725.958(a).

3) The date the leak was detected and the dates of each attempt to repair the leak.

4) Repair methods applied in each attempt to repair the leak.

5) "Above 10,000", if the maximum instrument reading measured by the methods specified in Section 725.963(b) after each repair attempt is equal to or greater than 10,000 ppm.

6) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

7) Documentation supporting the delay of repair of a valve in compliance with Section 725.959(c).

8) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a hazardous waste management unit shutdown.

9) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days.

10) The date of successful repair of the leak.

e) Design documentation and monitoring, operating and inspection information for each closed-vent system and control device required to comply with the provisions of Section 725.960 must be recorded and kept up-to-date in the facility operating record as specified in Section

725.935(c)(1) and (c)(2), and monitoring, operating and inspection information in Section 725.935(c)(3) through (c)(8).

f) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, monitoring and inspection information indicating proper operation and maintenance of the control device must be recorded in the facility operating record.

g) The following information pertaining to all equipment subject to the requirements in Sections 725.952 through 725.960 must be recorded in a log that is kept in the facility operating record:

1) A list of identification numbers for equipment (except welded fittings) subject to the requirements of this Subpart.

2) List of Equipment

A) A list of identification numbers for equipment that the owner or operator elects to designate for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, under the provisions of Sections 725.952(e), 725.953(i) and 725.957(f).

B) The designation of this equipment as subject to the requirements of Section~~s~~ 725.952(e), 725.953(i) or 725.957(f) must be signed by the owner or operator.

3) A list of equipment identification numbers for pressure relief devices required to comply with Section 725.954(a).

4) Compliance tests.

A) The dates of each compliance test required in Sections 725.952(e), 725.953(i), 725.954, and 725.957(f).

B) The background level measured during each compliance test.

C) The maximum instrument reading measured at the equipment during each compliance test.

5) A list of identification numbers for equipment in vacuum service.

6) Identification, either by list or location (area or group) of equipment that contains or contacts hazardous waste with an organic concentration of at least 10% by weight for a period of less than 300 hours per year.

h) The following information pertaining to all valves subject to the requirements of Section 725.957(g) and (h) must be recorded in a log that is kept in the facility operating record:

1) A list of identification numbers for valves that are designated as unsafe to monitor, an explanation for each valve stating why the valve is unsafe to monitor, and the plan for monitoring each valve.

2) A list of identification numbers for valves that are designated as difficult to monitor, an explanation for each valve stating why the valve is difficult to monitor, and the planned schedule for monitoring each valve.

i) The following information must be recorded in the facility operating record for valves complying with Section 725.962:

1) A schedule of monitoring.

2) The percent of valves found leaking during each monitoring period.

j) The following information must be recorded in a log that is kept in the facility operating record:

1) Criteria required in Section 725.952(d)(5)(B) and 725.953(e)(2) and an explanation of the criteria.

2) Any changes to these criteria and the reasons for the changes.

k) The following information must be recorded in a log that is kept in the facility operating record for use in determining exemptions as provided in Section 725.950 and other specific Subparts:

1) An analysis determining the design capacity of the hazardous waste management unit.

2) A statement listing the hazardous waste influent to and effluent from each hazardous waste management unit subject to the

requirements in Sections 725.960 and an analysis determining whether these hazardous wastes are heavy liquids.

3) An up-to-date analysis and the supporting information and data used to determine whether or not equipment is subject to the requirements in Sections 725.952 through 725.960. The record must include supporting documentation as required by Section 725.963(d)(3) when application of the knowledge of the nature of the hazardous wastestream or the process by which it was produced is used. If the owner or operator takes any action (e.g., changing the process that produced the waste) that could result in an increase in the total organic content of the waste contained in or contacted by equipment determined not to be subject to the requirements in Sections 725.952 through 725.960, then a new determination is required.

l) Records of the equipment leak information required by subsection (d) of this Section and the operating information required by subsection (e) of this Section need be kept only ~~3~~three years.

m) The owner or operator of any facility that is subject to this Subpart and to regulations at 40 CFR 60, Subpart VV, or 40 CFR 61, Subpart V, incorporated by reference in 35 Ill. Adm. Code 720.111, may elect to determine compliance with this Subpart by documentation either pursuant to Section 725.964, or pursuant to those provisions of 40 CFR 60 or 61, to the extent that the documentation under the regulation at 40 CFR 60 or 61 duplicates the documentation required under this Subpart. The documentation under the regulation at 40 CFR 60 or 61 must be kept with or made readily available with the facility operating record.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

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

Section 725.980 Applicability

a) The requirements of this Subpart apply, effective October 6, 1996, to owners and operators of all facilities that treat, store, or dispose of hazardous waste in tanks, surface impoundments, or containers that are subject to 725.Subpart I, J, or K, except as Section 725.101 and subsection (b) ~~below~~of this Section provide otherwise.

BOARD NOTE: USEPA adopted these regulations at 59 Fed. Reg. 62896 (Dec. 6, 1994), effective June 6, 1995. At 60 Fed. Reg. 26828 (May 19, 1995), 60 Fed. Reg. 56952 (Nov. 13, 1995), and 61 Fed. Reg. 28508 (June 5, 1996), USEPA delayed the effective date until October 6, 1996. If action by USEPA or a decision of a federal court changes the effectiveness of these regulations, the Board does not intend that 725.Subpart CC be enforceable to the extent that it becomes more stringent that the federal regulations upon which they are based.

b) The requirements of this Subpart do not apply to the following waste management units at the facility:

1) A waste management unit that holds hazardous waste placed in the unit before October 6, 1996 and in which no hazardous waste is added to the unit on or after this date.

2) A container that has a design capacity less than or equal to 0.1 m^3 (3.5 ft^3 or 26.4 gal).

3) A tank in which an owner or operator has stopped adding hazardous waste and the owner or operator has begun implementing or completed closure pursuant to an approved closure plan.

4) A surface impoundment in which an owner or operator has stopped adding hazardous waste (except to implement an approved closure plan) and the owner or operator has begun implementing or completed closure pursuant to an approved closure plan.

5) A waste management unit that is used solely for on-site treatment or storage of hazardous waste that is generated as the result of implementing remedial activities required pursuant to the Act or Board regulations or under the corrective action authorities of RCRA sections 3004(u), 3004(v) or 3008(h); CERCLA authorities; or similar federal or state authorities.

6) A waste management unit that is used solely for the management of radioactive mixed waste in accordance with all applicable regulations under the authority of the Atomic Energy Act (42 U.S.C. 2011 et seq.) and the Nuclear Waste Policy Act.

7) A hazardous waste management unit that the owner or operator certifies is equipped with and operating air emission controls in accordance with the requirements of an applicable federal Clean

Air Act regulation codified under 40 CFR 60, 61, or 63. For the purpose of complying with this subsection (b)(7), a tank for which the air emission control includes an enclosure, as opposed to a cover, must be in compliance with the enclosure and control device requirements of Section 725.985(i), except as provided in Section 725.983(c)(5).

8) A tank that has a process vent, as defined in 35 Ill. Adm. Code 725.931.

c) For the owner and operator of a facility subject to this Subpart ~~who~~that has received a final RCRA permit prior to October 6, 1996, the following requirements apply:

1) The requirements of 35 Ill. Adm. Code 724.Subpart CC must be incorporated into the permit when the permit is reissued, renewed, or modified in accordance with the requirements of 35 Ill. Adm. Code 703 and 705.

2) Until the date when the permit is reissued, renewed, or modified in accordance with the requirements of 35 Ill. Adm. Code 703 and 705, the owner and operator is subject to the requirements of this Subpart.

d) The requirements of this Subpart, except for the recordkeeping requirements specified in Section 725.990(i), are stayed for a tank or container used for the management of hazardous waste generated by organic peroxide manufacturing and its associated laboratory operations, when the owner or operator of the unit meets all of the following conditions:

1) The owner or operator identifies that the tank or container receives hazardous waste generated by an organic peroxide manufacturing process producing more than one functional family of organic peroxides or multiple organic peroxides within one functional family, that one or more of these organic peroxides could potentially undergo self-accelerating thermal decomposition at or below ambient temperatures, and that organic peroxides are the predominant products manufactured by the process. For the purposes of this subsection, "organic peroxide" means an organic compound that contains the bivalent -O-O- structure and which may be considered to be a ~~sturctural~~ structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

2) The owner or operator prepares documentation, in accordance with Section 725.990(i), explaining why an undue safety hazard would be created if air emission controls specified in Sections 725.985 through 725.988 are installed and operated on the tanks and containers used at the facility to manage the hazardous waste generated by the organic peroxide manufacturing process or processes meeting the conditions of subsection (d)(1) ~~above~~of this Section.

3) The owner or operator notifies the Agency in writing that hazardous waste generated by an organic peroxide manufacturing process or processes meeting the conditions of subsection (d)(1) ~~above~~of this Section are managed at the facility in tanks or containers meeting the conditions of subsection (d)(2) ~~above~~of this Section. The notification must state the name and address of the facility and be signed and dated by an authorized representative of the facility owner or operator.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 725.981 Definitions

As used in this Subpart and in 35 Ill. Adm. Code 724, all terms not defined herein shall have the meaning given to them in the Act and 35 Ill. Adm. Code 720 through 726.

"Average volatile organic concentration" or "average VO concentration" means the mass-weighted average volatile organic concentration of a hazardous waste, as determined in accordance with the requirements of Section 725.984.

"Closure device" means a cap, hatch, lid, plug, seal, valve, or other type of fitting that blocks an opening in a cover so that when the device is secured in the closed position it prevents or reduces air pollutant emissions to the atmosphere. Closure devices include devices that are detachable from the cover (e.g., a sampling port cap), manually operated (e.g., a hinged access lid or hatch), or automatically operated (e.g., a spring-loaded pressure relief valve).

"Continuous seal" means a seal that forms a continuous closure that completely covers the space between the edge of the floating roof and the wall of a tank. A continuous seal may be a vapor-mounted seal, liquid-mounted seal, or metallic shoe seal. A continuous seal may be constructed of fastened segments so as to form a continuous seal.

"Cover" means a device ~~or system~~ that ~~is placed on or~~provides a continuous barrier over ~~a~~the hazardous waste ~~such that the entire hazardous waste surface area is enclosed and sealed~~managed in a unit to prevent or reduce air emissions to the atmosphere. A cover may have openings (such as access hatches, sampling ports, and gauge wells) that are necessary for operation, inspection, maintenance, or repair of the unit on which the cover is ~~installed provided that each opening is closed and sealed when not in~~ used. ~~Examples of covers include a fixed roof installed on a tank, a floating membrane cover installed on a surface impoundment, a lid installed on a drum, or an enclosure in which an open container is placed during waste treatment.~~A cover may be a separate piece of equipment which can be detached and removed from the unit or a cover may be formed by structural features permanently integrated into the design of the unit.

"Enclosure" means a structure that surrounds a tank or container, captures organic vapors emitted from the tank or container, and vents the captured vapors through a closed-vent system to a control device.

"External floating roof" means a pontoon-type or double-deck type ~~floating roof~~cover that rests on the surface of a hazardous waste being managed in a tank ~~that has~~with no fixed roof.

"Fixed roof" means a ~~rigid~~ cover that is ~~installed~~mounted on a unit in a stationary position ~~so that it~~and does not move with fluctuations in the level of the ~~hazardous waste placed~~material managed in ~~a tank~~the unit.

"Floating membrane cover" means a cover consisting of a synthetic flexible membrane material that rests upon and is supported by the hazardous waste being managed in a surface impoundment.

"Floating roof" means a ~~pontoon-type or double-deck type~~cover consisting of a double-deck, pontoon single-deck, or internal floating cover that rests upon and is supported by the ~~hazardous waste~~material being ~~managed in a tank~~contained, and is equipped with a ~~closure~~continuous seal ~~or seals to close the space between the cover edge and the tank wall~~.

"Hard-piping" means pipe or tubing that is manufactured and properly installed in accordance with relevant standards and good engineering practices.

"In light material service" means the container is used to manage a material for which both of the following conditions apply: the vapor pressure of one or more of the organic constituents in the material is

greater than 0.3 kilopascals (kPa) at 20°C (1.2 inches H_2O at 68°F); and the total concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa at 20°C (1.2 inches H_2O at 68°F) is equal to or greater than 20% by weight.

"Internal floating roof" means a ~~floating roof~~cover that rests or floats on the material surface (but not necessarily in complete contact with it) ~~of a hazardous waste being managed~~ inside a tank that has a fixed roof.

"Liquid-mounted seal" means a foam or liquid-filled primary seal mounted in contact with the hazardous waste between the tank wall and the floating roof, continuously around the circumference of the tank.

"Malfunction" means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. A failure that is caused in part by poor maintenance or careless operation is not a malfunction.

~~"Maximum organic vapor pressure" means the equilibrium partial pressure exerted by the hazardous waste contained in a tank, determined at the temperature equal to either:~~

> ~~The local maximum monthly average temperature as reported by the National Weather Service, when the hazardous waste is stored or treated at ambient temperature, or~~
>
> ~~The highest calendar-month average temperature of the hazardous waste, when the hazardous waste is stored at temperatures above the ambient temperature or when the hazardous waste is stored or treated at temperatures below the ambient temperature.~~

"Maximum organic vapor pressure" means the sum of the individual organic constituent partial pressures exerted by the material contained in a tank at the maximum vapor pressure-causing conditions (i.e., temperature, agitation, pH effects of combining wastes, etc.) reasonably expected to occur in the tank. For the purpose of this Subpart, maximum organic vapor pressure is determined using the procedures specified in Section 725.984(c).

"Metallic shoe seal" means a continuous seal that is constructed of metal sheets that are held vertically against the wall of the tank by springs, weighted levers, or other mechanisms and which is connected to the floating roof by braces or other means. A flexible coated fabric

(envelope) spans the annular space between the metal sheet and the floating roof.

"No detectable organic emissions" means no escape of organics ~~from a device or system~~ to the atmosphere, as determined~~:~~ using the procedure specified in Section 725.984(d).

~~By an instrument reading less than 500 parts per million by volume (ppmv) above the background level at each joint, fitting, and seal, when measured in accordance with the requirements of Method 21 in 40 CFR 60, Appendix A, and~~

~~By no visible openings or defects in the device or system such as rips, tears, or gaps.~~

"Point of waste origination" means as follows:

When the facility owner or operator is the generator of the hazardous waste, the "point of waste origination" means the point where a solid waste produced by a system, process, or waste management unit is determined to be a hazardous waste, as defined in 35 Ill. Adm. Code 721.

BOARD NOTE: In this case, this term is being used in a manner similar to the use of the term "point of generation" in air standards established for waste management operations under authority of the federal Clean Air Act in 40 CFR 60, 61, and 63.

When the facility owner and operator are not the generator of the hazardous waste, "point of waste origination" means the point where the owner or operator accepts delivery or takes possession of the hazardous waste.

"Point of waste treatment" means the point where a hazardous waste to be treated in accordance with Section 725.983(c)(2) exits ~~a waste management unit used to destroy, degrade, or remove organics in the hazardous waste~~ the treatment process. Any waste determination must be made before the waste is conveyed, handled, or otherwise managed in a manner that allows the waste to volatilize to the atmosphere.

"Safety device" means a closure device, such as a pressure relief valve, frangible disc, fusible plug, or any other type of device, which functions exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an

unplanned, accidental, or emergency event. For the purpose of this Subpart, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in this vapor headspace in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the air emission control equipment as determined by the owner or operator based on manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials.

"Single-seal system" means a floating roof having one continuous seal. This seal may be vapor-mounted, liquid-mounted, or a metallic shoe seal.

"Vapor-mounted seal" means a ~~foam-filled primary seal mounted~~ continuous~~ly around the circumference of the tank so that there is an annular~~ seal that is mounted so that there is a vapor space ~~underneath~~between the hazardous waste in the unit and the bottom of the seal. ~~The annular vapor space is bounded by the bottom of the primary seal, the tank wall, the hazardous waste surface, and the floating roof.~~

"Volatile organic concentration" or "VO concentration" means the fraction by weight of organic compounds contained in a hazardous waste expressed in terms of parts per million (ppmw), as determined by direct measurement~~, using Method 25D,~~ or by knowledge of the waste, in accordance with the requirements of Section 725.984. For the purpose of determining the VO concentration of a hazardous waste, organic compounds with a Henry's law constant value of at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in the liquid-phase (0.1 Y/X) (which can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/m^3) at 25° C (77° F) must be included. Section 725.Appendix F presents a list of compounds known to have a Henry's law constant value less than the cutoff level.

"Waste determination" means performing all applicable procedures in accordance with the requirements of Section 725.984 to determine whether a hazardous waste meets standards specified in this Subpart. Examples of a waste determination include performing the procedures in accordance with the requirements of Section 725.984 to determine the average VO concentration of a hazardous waste at the point of waste

origination, determining the average VO concentration of a hazardous waste at the point of waste treatment and comparing the results to the exit concentration limit specified for the process used to treat the hazardous waste, ~~determining~~ the organic reduction efficiency and the organic biodegradation efficiency for a biological process used to treat a hazardous waste and comparing the results to the applicable standards, or determining the maximum volatile organic vapor pressure for a hazardous waste in a tank and comparing the results to the applicable standards.

"Waste stabilization process" means any physical or chemical process used to either reduce the mobility of hazardous constituents in a hazardous waste or eliminate free liquids as determined by Test Method 9095 (Paint Filter Liquids Test) in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", incorporated by reference in Section 720.111. A waste stabilization process includes mixing the hazardous waste with binders or other materials and curing the resulting hazardous waste and binder mixture. Other synonymous terms used to refer to this process are "waste fixation" or "waste solidification". This does not include the addition of absorbent materials to the surface of a waste to absorb free liquid without mixing, agitation, or subsequent curing.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

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.

b) The owner or operator shall control air emissions from each waste management unit in accordance with standards specified in Sections 725.985 through Section 725.988, as applicable to the waste management unit, except as provided for in subsection (c) ~~below~~of this Section.

c) A ~~waste management unit~~tank, surface impoundment, or container is exempted from standards specified in Section~~s~~ 725.985 through ~~Section~~ 725.988, provided that all hazardous waste placed in the waste management unit is ~~determined by the owner or operator to meet either~~one of the following ~~conditions~~:

1) ~~The average VO concentration of the~~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 ~~is~~of less than ~~100~~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 shall 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) ~~T~~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_t) 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 ~~50~~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 ~~in accordance with~~using the procedures specified in Section 725.984(b).

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) All of the materials entering the process are hazardous wastes.~~

ii~~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 40 CFR 63, subpart RR, "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 ~~100~~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% 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 shall be determined using the procedures specified in Section 724.983(b) and Section 724.983(a), respectively.

~~E~~G) A hazardous waste incinerator for which either of the ~~owner or operator has either~~following conditions is true:

i) ~~B~~The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705~~, and the owner or operator designs and operates the unit in accordance with~~ that implements the requirements of 35 Ill. Adm. Code 724.Subpart O; or

ii) The owner or operator has ~~certified compliance for the unit~~designed and operates the incinerator in accordance with the interim status requirements of 725.Subpart O.

~~G~~H) A boiler or industrial furnace for which either of the ~~owner or operator has either~~following conditions is true:

i) ~~B~~The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705~~, and and the owner or operator designs and operates the unit in accordance with~~ that implements the requirements of 35 Ill. Adm. Code 726.Subpart H~~,~~; or

ii) The owner or operator has ~~certified compliance for the unit~~designed and operates the industrial furnace or incinerator in accordance with the interim status requirements of 35 Ill. Adm. Code 726.Subpart H.

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 shall account for VO concentrations determined to be below the limit of detection of the analytical method by using the following VO concentration:

i) If Method 25D in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, is used for the analysis, one-half the blank value determined in the method.

ii) If any other analytical method is used, one-half the limit of detection established for the method.

3) A tank 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 35 Ill. Adm. Code 728.Table T; or

B) It has been treated by the treatment technology established by USEPA for the waste 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).

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 40 CFR 61, subpart FF, "National Emission Standards for Benzene Waste Operations", incorporated by reference in 35 Ill. Adm. Code 720.111, 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 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical or electrical equipment; or to direct air flow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" annually.

~~d) When a process is used for the purpose of treating a hazardous waste to meet one of the sets of conditions specified in subsections (c)(2)(A) through (c)(2)(E) above, each material removed from or exiting the process that is not a hazardous waste but which has an average VO~~

~~concentration equal to or greater than 100 ppmw must be managed in a waste management unit in accordance with the requirements of subsection (b) above.~~

~~e~~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 shall 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.

~~2~~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.

~~3~~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 (e~~d~~)(1) ~~above~~of this Section must be used to establish compliance with the requirements of this Subpart.

~~4~~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 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 ~~100~~500 ppmw shall constitute noncompliance with this Subpart, except in a case as provided for in subsection (~~e~~d)(4)(C) ~~below~~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 ~~100~~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 ~~100~~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.

(Source: Amended at 21 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 shall 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.

2) ~~When the facility owner or operator is the generator of the hazardous waste, t~~The ~~owner or operator shall determine the~~ average VO concentration of ~~the~~a hazardous waste at the point of waste origination must be determined using either direct measurement, as specified in subsection (a)(~~5~~3) ~~below,~~of this Section or by knowledge of the waste, as specified in subsection (a)(~~6~~4) ~~below~~of this Section~~, for each hazardous waste generated as follows:~~.

~~A) When the hazardous waste is generated as part of a continuous process, the owner or operator shall:~~

~~i) Perform an initial waste determination of the average VO concentration of the waste stream before the first time any portion of the material in the waste stream is placed in a waste management unit subject to this Subpart and thereafter update the information used for the waste determination at least once every 12 months following the date of the initial waste determination; and~~

~~ii) 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 applicable VO concentration limits specified in Section 725.983.~~

~~B) When the hazardous waste is generated as part of a batch process that is performed repeatedly but not necessarily continuously, the owner or operator shall:~~

~~i) Perform an initial waste determination of the average VO concentration for one or more representative waste batches generated by the~~

process, before the first time any portion of the material in the batches is placed in a waste management unit subject to this Subpart, and thereafter update the information used for the waste determination at least once every 12 months following the date of the initial waste determination; and

ii) Perform a new waste determination whenever changes to the process generating the waste batches 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 applicable VO concentration limits specified in Section 725.983.

3) When the facility owner and operator is not the generator of the hazardous waste, the owner or operator shall determine the average VO concentration of the hazardous waste using either direct measurement, as specified in subsection (a)(5) below, or knowledge of the waste, as specified in subsection (a)(6) below, for each hazardous waste entering the facility as follows:

A) When the hazardous waste enters the facility as a continuous flow of material through a pipeline or other means (e.g., wastewater stream), the owner or operator shall:

i) Perform an initial waste determination of the waste stream before the first time any portion of the material in the waste stream is placed in a waste management unit subject to this Subpart, and thereafter update the information used for the waste determination at least once every 12 months following the date of the initial waste determination; and

ii) 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 applicable VO concentration limits specified in Section 725.983.

~~B) When the hazardous waste enters the facility in a container, the owner or operator shall perform a waste determination for the material held in each container.~~

~~4) Where the average VO concentration of the hazardous waste is determined by the owner or operator to be less than 100 ppmw, but because of normal operating variations in the source or process generating the hazardous waste the VO concentration of the hazardous waste may be equal to or greater than 100 ppmw at any given time during the averaging period, the owner or operator shall prepare and enter in the facility operating record information that specifies the following:~~

~~A) The maximum and minimum VO concentration values for the hazardous waste that occur during that averaging period used for the waste determination;~~

~~B) The operating conditions or circumstances under which the VO concentration of the hazardous waste will be equal to or greater than 100 ppmw; and~~

~~C) The information and calculations used by the owner or operator to determine the average VO concentration of the hazardous waste.~~

~~5~~3) ~~Procedure for using d~~Direct measurement to determine average VO concentration of a hazardous waste at the point of waste origination.

A) Identification. The owner or operator shall identify and record the point of waste origination for the hazardous waste. ~~All waste samples used to determine the average VO concentration of the hazardous waste must be collected at this point.~~

~~B) The owner or operator shall designate and record the averaging period to be used for determining the average VO concentration for the hazardous waste. The averaging period must not exceed one year. An initial waste determination must be performed for each averaging period.~~

B) Sampling. Samples of the hazardous waste stream must be collected at the point of waste origination in a manner such 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 less than four samples, must be collected for the hazardous waste stream to represent the complete range of 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 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 on-site in the facility operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures in accordance with the requirements specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, or in Method 25D in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.

~~C) The owner or operator shall identify each discrete quantity of the material composing the hazardous waste represented by the averaging period designated in subsection (a)(5)(B) above. An example of a discrete quantity of material composing a hazardous waste generated as part of a continuous process is the quantity of material generated during a process operating mode defined by a specific set of operating conditions that are normal for the process. An example of a discrete quantity of material composing a hazardous waste generated as part of a batch process that is performed repeatedly but not necessarily continuously is the total quantity of material composing a single batch generated by the process. An example of a discrete quantity of material composing a hazardous waste delivered to a facility in a container is the total quantity of material held in the container.~~

C) Analysis. Each collected sample must be prepared and analyzed in accordance with one or more of the methods listed in subsections (a)(3)(C)(i) through (a)(3)(C)(ix), including appropriate quality assurance and quality control (QA/QC) checks and use of target compounds for calibration. If Method 25D in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111 is not used, then one or more methods should be chosen that are appropriate to ensure that the waste determination 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 1.8×10^{-6} atmospheres/gram-mole/m^3] at 25° C (77° F). Each of the analytical methods listed in subsections (a)(3)(C)(ii) through (a)(3)(C)(vii) of this Section has an associated list of approved chemical compounds, for which USEPA considers the method appropriate for measurement. If an owner or operator uses USEPA Method 624, 625, 1624, or 1625 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, to analyze one or more compounds that are not on that method's published list, the Alternative Test Procedure contained in 40 CFR 136.4 and 136.5, incorporated by reference in 35 Ill. Adm. Code 720.111, must be followed. If an owner or operator uses USEPA Method 8260(B) or 8270(C) in "Test Methods for Evaluating Solid Waste,

Physical/Chemical Methods", USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, to analyze one or more compounds that are not on that method's published list, the procedures in subsection (a)(3)(C)(viii) of this Section must be followed. At the owner's or operator's discretion, the concentration of each individual chemical constituent measured in the waste by a method other than Method 25D may be corrected to the concentration had it been measured using Method 25D by multiplying the measured concentration by the constituent-specific adjustment factor (f_{m25D}), as specified in subsection (a)(4)(C) of this Section. 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.

i) Method 25D in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.

ii) Method 624 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.

iii) Method 625 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111. Perform corrections to the compounds for which the analysis is being conducted based on the "accuracy as recovery" using the factors in Table 7 of the method.

iv) Method 1624 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.

v) Method 1625 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.

vi) Method 8260(B) in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111. Maintain a formal quality assurance program consistent with

the requirements of Method 8260(B). The quality assurance program must include the elements set forth in subsection (a)(3)(E) of this Section.

vii) Method 8270(C) in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111. Maintain a formal quality assurance program consistent with the requirements of Method 8270(C). The quality assurance program must include the elements set forth in subsection (a)(3)(E) of this Section.

viii) Any other USEPA standard method that has been validated in accordance with "Alternative Validation Procedure for USEPA Waste and Wastewater Methods", 40 CFR 63, appendix D, incorporated by reference in 35 Ill. Adm. Code 720.111. As an alternative, other USEPA standard methods may be validated by the procedure specified in subsection (a)(3)(C)(ix) of this Section.

ix) 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 in 40 CFR 63, appendix A, 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) The following procedure must be used measure the VO concentration for each discrete quantity of material identified in subsection (a)(5)(C) above:~~

~~i) A sufficient number of samples, but in no case fewer than four, must be collected to represent the organic composition for the entire discrete quantity of hazardous waste being tested. All of the~~

samples must be collected within a 1-hour period. Sufficient information 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.

ii) Each sample must be collected in accordance with the requirements specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", incorporated by reference in Section 720.111.

iii) Each collected sample must be prepared and analyzed in accordance with the requirements of Method 25D in 40 CFR 60, Appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.

iv) The measured VO concentration for the discrete quantity of hazardous waste must be determined by using the results for all samples analyzed in accordance with subsection (a)(5)(D)(iii) above and the following equation:

$$C = \frac{1}{n} x \sum_{i=1}^{n} C_i$$

Where:

C = Measured VO concentration of the discrete quantity of hazardous waste, in ppmw.

i = Individual sample "i" of the hazardous waste collected in accordance with the requirements of SW-846.

n = Total number of samples of hazardous waste collected (at least 4) within a 1-hour period.

~~C_i = VO concentration measured by Method 25D for sample "i", in ppmw.~~

~~E) The average VO concentration of the hazardous waste must be determined using the following procedure:~~

~~i) When the facility owner or operator is the generator of the hazardous waste, a sufficient number of VO concentration measurements for the hazardous waste must be performed in accordance with the requirements of subsection (a)(5)(D) above to represent the complete range of hazardous waste organic compositions and quantities that occur during the entire averaging period due to normal variations in the operating conditions for each process operating mode identified for the source or process generating the hazardous waste.~~

~~ii) When the facility owner or operator is not the generator of the hazardous waste, a sufficient number of VO concentration measurements for the hazardous waste must be performed in accordance with the requirements of subsection (a)(5)(D) above to represent the complete range of hazardous waste organic compositions and quantities that occur in the hazardous waste as received at the facility during the entire averaging period.~~

~~iii~~D) Calculations. The average VO concentration ~~of the hazardous waste at the point of waste origination~~($\overline{C}$) on a mass-weighted basis must be calculated by using the results for all ~~VO measurements performed~~samples analyzed in accordance with subsection (a)(~~5~~3)(~~D~~C) ~~above~~of this Section and the following equation:

~~$$\overline{C} = \frac{1}{Q_T} x \sum_{j=1}^{m} (Q_j x C_j)$$~~

$$\overline{C} = \frac{1}{Q_T} x \sum_{i=1}^{n} (Q_i x C_i)$$

Where:

~~C_{ave}~~ $\overline{C}$ = Average VO concentration of the hazardous waste at the point of waste origination on a mass-weighted basis, in ppmw.

~~j~~i = Individual ~~discrete quantity~~sample "~~j~~i" of the hazardous waste~~ for which a VO concentration measurement is determined in accordance with the requirements of subsection (a)(5)(D) above~~.

~~m~~n = Total number of ~~VO concentration measurements determined in accordance with the requirements of subsection (a)(5)(D) above~~samples of the hazardous waste collected (at least four) for the averaging period (not to exceed one year).

~~Q_j~~Q_i = Mass ~~of the discrete quantity~~quantity of the hazardous waste stream represented by ~~C_j~~C_i, in kg/hr.

Q_T = Total mass quantity of the hazardous waste ~~for~~during the averaging period, in kg/hr.

~~C_j~~C_i = Measured VO concentration of ~~discrete quantity~~sample "~~j~~i", as ~~for the hazardous waste~~ determined in accordance with ~~the requirements of~~ subsection (a)(~~5~~3)(~~D~~C) ~~above~~of this Section, in ppmw.

E) 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)(E)(i) and (a)(3)(E)(ii) correspond with 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.

~~6) Procedure for using knowledge of the waste to determine the average VO concentration of a hazardous waste at the point of waste origination.~~

~~A) The owner or operator shall identify and record the point of waste origination for the hazardous waste. All information used to determine the average VO concentration of the hazardous waste must be based on the hazardous waste composition at this point.~~

~~B) The owner or operator shall designate and record the averaging period to be used for determining the average VO concentration for the hazardous waste. The averaging period must not exceed one year. An initial waste determination must be performed for each averaging period.~~

~~C) The owner or operator shall prepare and record sufficient information that documents the average VO concentration for the hazardous waste. Information may be used that is prepared by either the facility owner or operator or by the generator of the hazardous waste. Examples of information that may be used as the basis for knowledge of the waste include: organic material balances for the source or process generating the waste; VO concentration measurements for the same type of waste performed in accordance with the procedure specified in subsection (a)(5)(D) above; previous individual organic constituent test data for the waste that are still applicable to the current waste management practices; documentation that the waste is generated by a process for which no organics-containing materials are used; previous test data for other locations managing the same type of waste; or other knowledge based on manifests, shipping papers, or waste certification notices.~~

~~D) If test data other than VO concentration measurements performed in accordance with the procedure specified in subsection (a)(5)(D) above are used as the basis for knowledge of the waste, then the owner or operator shall 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 individual organic constituent concentration test data that are validated in accordance with Method 301 in 40 CFR 63, Appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, as the basis for knowledge of the waste.~~

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 shall 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 in 40 CFR 63, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, 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 which would have been obtained had the waste samples been analyzed using Method 25D in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111. 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. The Agency may perform or request that the owner or operator perform this determination using direct measurement.

b) Waste determination procedures for treated hazardous waste.

1) An owner or operator shall 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) from using air emission controls in accordance with standards specified in Sections 725.985 through ~~Section~~ 725.988, as applicable to the waste management unit.

~~2) The owner or operator shall perform a waste determination for each discrete quantity of treated hazardous waste as follows:~~

~~A) When the hazardous waste is treated by a continuous process, the owner or operator shall:~~

~~i) Perform an initial waste determination for the treated waste stream before the first time any portion of the material in the waste stream is placed in a waste management unit subject to this Subpart, and thereafter update the information used for the waste determination at least once~~

~~every 12 months following the date of the initial waste determination; and~~

~~ii) Perform a new waste determination whenever changes to the hazardous waste streams fed to the process are reasonably likely to cause the characteristics of the hazardous waste at the point of waste treatment to change to levels that fail to achieve the applicable conditions specified in Section 725.983(c)(2).~~

~~B) When the hazardous waste is treated by a batch process that is performed repeatedly but not necessarily continuously, the owner or operator shall:~~

~~i) Perform an initial waste determination for the treated hazardous waste in one or more representative batches treated by the process, and thereafter update the information used for the waste determination at least once every 12 months following the date of the initial waste determination; and~~

~~ii) Perform a new waste determination whenever changes to the hazardous waste treated by the process are reasonably likely to cause the characteristics of the hazardous waste at the point of waste treatment to change to levels that fail to achieve the applicable conditions specified in Section 725.983(c)(2).~~

~~3~~2) The owner or operator shall designate and record the specific provision in Section 725.983(c)(2) ~~for~~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)(~~4~~3) through (b)(~~10~~9) ~~below~~of this Section.

~~4~~3) Procedure to determine the average VO concentration of a hazardous waste at the point of waste treatment.

A) Identification. The owner or operator shall identify and record the point of waste treatment for the hazardous waste. ~~All waste samples used to determine the average~~

~~VO concentration of the hazardous waste must be collected at this point.~~

~~B) The owner or operator shall designate and record the averaging period to be used for determining the average VO concentration for the hazardous waste. The averaging period must not exceed one year. An initial waste determination must be performed for each averaging period.~~

~~C) The owner or operator shall identify each discrete quantity of the material composing the hazardous waste represented by the averaging period designated in subsection (b)(4)(B) above.~~

~~D) The following procedure shall be used to measure the VO concentration for each discrete quantity of material identified in subsection (b)(4)(C) above:~~

~~i) A sufficient number of samples, but in no case fewer than four samples, must be collected to represent the organic composition for the entire discrete quantity of hazardous waste being tested. All of the samples must be collected within a 1-hour period. Sufficient information 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.~~

~~ii) Each sample must be collected in accordance with the requirements specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", incorporated by reference in 35 Ill. Adm. Code 720.111.~~

~~iii) Each collected sample must be prepared and analyzed in accordance with the requirements of Method 25D in 40 CFR 60, Appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.~~

~~iv) The measured VO concentration for the discrete quantity of hazardous waste must be determined by~~

~~using the results for all samples analyzed in accordance with subsection (a)(5)(D)(iii) above and the following equation:~~

$$~~C = \frac{1}{n} x \sum_{i=1}^{n} C_i~~$$

~~Where:~~

~~C = Measured VO concentration of the discrete quantity of hazardous waste, in ppmw.~~

~~i = Individual sample "i" of the hazardous waste collected in accordance with the requirements of SW-846.~~

~~n = Total number of samples of hazardous waste collected (at least 4) within a 1-hour period.~~

~~C_i = VO concentration measured by Method 25D for sample "i", in ppmw.~~

B) Sampling. Samples of the hazardous waste stream must be collected at the point of waste treatment in a manner such 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 less than four samples, must be collected for the hazardous waste stream to represent the complete range of compositions and quantities that occur during the entire averaging period due to normal variations in the operating conditions for the process 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 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 on-site in the facility operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures in accordance with the requirements specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," USEPA Publication No. SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, or in Method 25D in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.

C) Analysis. Each collected sample must be prepared and analyzed in accordance with one or more of the methods listed in subsections (b)(3)(C)(i) through (b)(3)(C)(ix) of this Section, including appropriate quality assurance and quality control (QA/QC) checks and use of target compounds for calibration. If Method 25D in 40 CFR 60, appendix A is not used, then one or more methods should be chosen that are appropriate to ensure that the waste determination 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 1.8×10^{-6} atmospheres/gram-mole/m^3] at 25 degrees Celsius. Each of the analytical methods listed in subsections (b)(3)(C)(ii) through (b)(3)(C)(vi) of this Section has an associated list of approved chemical compounds, for which USEPA considers the method appropriate for measurement. If an owner or operator uses USEPA Method 624, 625, 1624, or 1625 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, to analyze one or more compounds that are not on that method's published list, the Alternative Test Procedure contained in 40 CFR 136.4 and 136.5, incorporated by reference in 35 Ill. Adm. Code 720.111, must be followed. If an owner or operator uses USEPA Method 8260(B) or 8270(C) in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, to analyze one or more compounds that are not on that method's published list, the procedures in subsection (b)(3)(C)(viii) of this Section must be followed. At the owner's or operator's discretion, the concentration of each individual chemical constituent measured in the waste by a method other than Method 25D may be corrected to the concentration had it been measured using Method 25D by multiplying the measured concentration by the constituent-specific adjustment factor (f_{m25D}) as specified in subsection (a)(4)(C) of this Section. 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.

i) Method 25D in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.

ii) Method 624 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.

iii) Method 625 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111. Perform corrections to the compounds for which the analysis is being conducted based on

the "accuracy as recovery" using the factors in Table 7 of the method.

iv) Method 1624 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.

v) Method 1625 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.

vi) Method 8260(B) in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111. Maintain a formal quality assurance program consistent with the requirements of Method 8260(B). The quality assurance program must include the elements set forth in subsection (b)(3)(E) of this Section.

vii) Method 8270(C) in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111. Maintain a formal quality assurance program consistent with the requirements of Method 8270(C). The quality assurance program must include the elements set forth in subsection (b)(3)(E) of this Section.

viii) Any other USEPA standard method that has been validated in accordance with "Alternative Validation Procedure for EPA Waste and Wastewater Methods", 40 CFR 63, appendix D, incorporated by reference in 35 Ill. Adm. Code 720.111. As an alternative, other USEPA standard methods may be validated by the procedure specified in subsection (b)(3)(C)(ix) of this Section.

ix) 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 in 40 CFR 63, appendix A. 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.

~~E) The average VO concentration of the hazardous waste at the point of waste treatment must be determined using the following procedure:~~

~~i) When the facility owner or operator is the generator of the hazardous waste, a sufficient number of VO concentration measurements for the hazardous waste must be performed in accordance with the requirements of subsection (b)(4)(D) above to represent the complete range of hazardous waste organic compositions and quantities treated by the process during the entire averaging period.~~

~~ii~~D) Calculations. The average VO concentration ~~of the hazardous waste at the point of waste treatment~~($\overline{C}$) on a mass-weighted basis must be calculated by using the results for all ~~VO measurements performed~~samples analyzed in accordance with subsection (b)(~~4~~3)(~~D~~C) ~~above~~of this Section and the following equation:

$$\sum_{j=1}^{m} (Q_j \times C_j)$$

$$\overline{C} = \frac{1}{Q_T} \times \sum_{i=1}^{n} (Q_i \times C_i)$$

Where:

~~C_{ave}~~ $\overline{C}$ = Average VO concentration of the hazardous waste at the point of waste ~~origination~~treatment on a mass-weighted basis, in ppmw.

~~j~~i = Individual ~~discrete quantity~~sample "~~j~~i" of the hazardous waste ~~for which a VO concentration measurement is determined in~~

~~accordance with the requirements of subsection (b)(4)(D) above~~.

~~m~~n = Total number of ~~VO concentration measurements determined in accordance with the requirements of subsection (b)(4)(D) above~~samples of the hazardous waste collected (at least 4) for the averaging period (not to exceed 1 year).

~~Q_j~~Q_i = Mass ~~of the discrete~~ quantity of the hazardous waste stream represented by ~~C_j~~C_i, in kg/hr.

Q_T = Total mass quantity of ~~the~~ hazardous waste ~~for~~during the averaging period, in kg/hr.

~~C_j~~C_i = Measured VO concentration of ~~discrete quantity~~sample "~~j~~i", as ~~for the hazardous waste~~ determined in accordance with the requirements of subsection (b)(~~4~~3)(~~D~~C) ~~above~~of this Section, in ppmw.

~~5~~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)(~~5~~4)(A) ~~above~~of this Section, then the exit concentration limit (C_t) must be ~~100~~500 ppmw.

C) If more than one hazardous waste stream is identified in subsection (b)(~~5~~4)(A) ~~above~~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) ~~above~~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:

$$\sum_{x=1}^{m} (Q_x x \bar{C}_x) + \sum_{y=1}^{n} (Q_y x 100 ppmw)$$

~~$C_t =$~~

$$\frac{}{\sum_{x=1}^{m} Q_x + \sum_{y=1}^{n} Q_y}$$

$$\sum_{x=1}^{m} (Q_x x \bar{C}_x) + \sum_{y=1}^{n} (Q_y x 500 ppmw)$$

$$C_t = \frac{}{\sum_{x=1}^{m} Q_x + \sum_{y=1}^{n} Q_y}$$

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 ~~100~~500 ppmw at the point of waste origination, as determined in accordance with the requirements of ~~Section 725.984~~subsection (a) of this Section.

y = Individual hazardous waste stream "y" that has an average VO concentration equal to or greater than ~~100~~500 ppmw at the point of waste origination, as determined in accordance with the requirements of ~~Section 725.984~~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.

$\overline{C}_x$ = Average VO concentration of hazardous waste stream "x" at the point of waste origination, as determined in accordance with the requirements of ~~Section 725.984~~subsection (a) of this Section, in ppmw.

~~6~~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. ~~The sampling time for each run must be one hour.~~

B) ~~The point of each~~All hazardous waste streams entering the process and ~~each~~all hazardous waste streams exiting the treatment process ~~that is to be included in the calculation of the organic reduction efficiency for the process~~ must be identified. The owner or operator shall 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, ~~the following~~ information must be determined for each hazardous waste stream identified in subsection (b)(~~6~~5)(B) ~~above~~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.

ii) The average VO concentration at the point of waste origination of each hazardous waste stream entering the process (~~C_b~~C_b) during the run must be ~~measured~~determined in accordance with the requirements of subsections (a)(~~5~~3)~~(D)(i) through (a)(5)(D)(iv) below~~of this Section. The average

VO concentration at the point of waste treatment of each hazardous waste stream exiting the process (~~C~~C_a) during the run must be determined in accordance with the requirements of subsection (b)(4~~3~~)~~(D)~~ ~~below~~of this Section. ~~Samples must be collected as follows: For a continuous process, the samples of the hazardous waste entering and samples of the hazardous waste exiting the process must be collected concurrently. For a batch process, the samples of the hazardous waste entering the process must be collected at the time that the hazardous waste is placed in the process. The samples of the hazardous waste exiting the process must be collected as soon as practicable after the time when the process stops operation or the final treatment cycle ends.~~

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)(6~~5~~)(C) ~~above~~of this Section and the following equations:

~~$$E_b = \frac{1}{10^6} \sum_{j=1}^{m} (Q_{bj} \times C_{bj})$$~~

~~$$E_a = \frac{1}{10^6} \sum_{j=1}^{m} (Q_{aj} \times C_{aj})$$~~

$$E_b = \frac{1}{10^6} \sum_{j=1}^{m} (Q_{bj} \times \overline{C_{bj}})$$

$$E_a = \frac{1}{10^6} \sum_{j=1}^{m} (Q_{aj} \times \overline{C_{aj}})$$

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.

~~C_{aj}~~ $\overline{C_{aj}}$ = ~~Measured~~ Average VO concentration of hazardous waste exiting the process during run "j", as determined in accordance with the requirements of ~~Section 725.984~~subsection (b)(~~4~~3)~~(D)~~ of this Section, in ppmw.

~~C_{bj}~~ $\overline{C_{bj}}$ = ~~Measured~~ Average VO concentration of hazardous waste entering the process during run "j", as determined in accordance with the requirements of ~~Section 725.984~~subsection 725.984 (a)(~~5~~3)~~(D)(i) through (a)(5)(D)(iv)~~ 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)(~~6~~5)(D) ~~above~~of this Section and the following equation:

$$R = \frac{E_b - E_a}{E_b} x100\%$$

Where:

R = Organic reduction efficiency, in percent.

E_b = Waste volatile organic mass flow entering the process as determined in accordance with the requirements of subsection (b)(~~6~~5)(D) ~~above~~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)(~~6~~5)(D) ~~above~~of this Section, in kg/hr.

~~7~~6) Procedure to determine the organic biodegradation efficiency (R_{bio}) for a treated hazardous waste.

A) The fraction of organics biodegraded (F_{bio}) must be determined using the procedure specified in 40 CFR 63, Appendix C, incorporated by reference in 35 Ill. Adm. Code 720.111.

B) The organic biodegradation efficiency (R_{bio}) must be calculated by using the following equation:

$$R_{bio} = F_{bio} \, x100\%$$

Where

R_{bio} = Organic biodegradation efficiency, in percent.

F_{bio} = Fraction of organic biodegraded, as determined in accordance with the requirements of subsection (b)(~~7~~6)(A) ~~above~~of this Section.

~~8~~7) Procedure to determine the required organic mass removal rate (RMR) for a treated hazardous waste.

A) ~~The point of waste origination for each~~All of the hazardous waste ~~treated by~~streams entering the treatment process ~~at the same time~~ must be identified.

B) ~~For each hazardous waste stream identified in subsection (b)(8)(A) above, the~~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) ~~above~~of this Section.

C) For each individual hazardous waste stream that has an average volatile organic concentration equal to or greater than ~~100~~500 ppmw at the point of waste origination ~~as determined in accordance with the requirements of subsection (b)(8)(B) above~~, the average volumetric flow rate of hazardous waste and the density of the hazardous waste stream at the point of waste origination ~~and the density of the hazardous waste stream~~ must be determined.

D) The required organic mass removal rate (RMR) for the hazardous waste must be calculated by using the ~~results determined for each individual hazardous waste stream in accordance with the requirements of subsections (b)(8)(B) and (b)(8)(C) above~~average VO concentration, average volumetric flow rate, and density determined for each individual hazardous waste stream, and the following equation:

~~$$RMR = \sum_{y=1}^{n} \left[V_y \times k_y \times \frac{(\bar{C}_y - 100ppmw)}{10^6} \right]$$~~

$$RMR = \sum_{y=1}^{n} \left[V_y \times k_y \times \frac{(\bar{C}_y - 500ppmw)}{10^6} \right]$$

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 ~~100~~500 ppmw at the point of waste origination, as determined in accordance with the requirements of ~~Section 725.984~~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 m^3/hr.

k_y = Density of hazardous waste stream "y", in kg/m^3

$\overline{C}_y$ = Average VO concentration of hazardous waste stream "y" at the point of waste origination, as determined in accordance with the requirements of ~~Section 725.984~~subsection (a) of this Section, in ppmw.

~~9~~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)(~~6~~5)(D) ~~above~~of this Section.

C) The actual organic mass removal rate (MR) must be calculated by using the ~~results~~mass flow rate determined in accordance with the requirements of subsection (b)(~~9~~8)(B) ~~above~~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 process, as determined in accordance with

the requirements of subsection (b)(~~6~~5)(D) ~~above~~of this Section, in kg/hr.

E_a = Waste volatile organic mass flow exiting process, as determined in accordance with the requirements of subsection (b)(~~6~~5)(D) ~~above~~of this Section, in kg/hr.

~~10~~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)(~~6~~5)(D) ~~above~~of this Section.

C) The fraction of organic biodegraded (F_{bio}) must be determined using the procedure specified in 40 CFR 63, Appendix C, incorporated by reference in 35 Ill. Adm. Code 720.111.

D) The actual organic mass biodegradation rate (MR_{bio}) must be calculated by using the mass flow rates and fraction of organic biodegraded determined in accordance with the requirements of subsections (b)(~~10~~9)(B) and (b)(~~10~~9)(C) ~~above~~of this Section 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)(~~6~~5)(D) ~~above~~of this Section, in kg/hr.

F_{bio} = Fraction of organic biodegraded, as determined in accordance with the requirements of subsection (b)(~~10~~9)(C) ~~above~~of this Section.

c) Procedure to determine the maximum organic vapor pressure of a hazardous waste in a tank.

1) An owner or operator shall determine the maximum organic vapor pressure for each hazardous waste placed in a tank using ~~air emission~~Tank Level 1 controls in accordance with standards specified in Section 725.985(c).

2) An owner or operator shall use either direct measurement, as specified in subsection (c)(3) ~~above~~of this Section, or knowledge of the waste, as specified by subsection (c)(4) ~~above~~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) ~~To determine the maximum organic vapor pressure of the hazardous waste by direct measurement, the following procedure must be used:~~Direct measurement to determine the maximum organic vapor pressure of a hazardous waste.

A) ~~Representative~~Sampling. A sufficient number of samples ~~of the waste contained in the tank~~ must be collected to be representative of the waste contained in the tank. ~~Sampling~~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 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 on-site in the facility operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures in accordance with the requirements specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA Publication No. SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, or in Method 25D in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.

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~~, as appropriate~~:

i) Method 25E in 40 CFR 60, Appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111;

ii) Methods described in American Petroleum Institute Publication 2517, incorporated by reference in 35 Ill. Adm. Code 720.111;

iii) Methods obtained from standard reference texts;

iv) ASTM Method D 2879-92, incorporated by reference in 35 Ill. Adm. Code 720.111~~)~~; or

v) Any other method approved by the Agency ~~for this use by the owner or operator~~.

~~4) To determine the maximum organic vapor pressure of the hazardous waste by knowledge, sufficient information must be prepared and recorded that documents the maximum organic vapor pressure of the hazardous waste in the tank. Examples of information that may be used include: documentation that the waste is generated by a process for which no organics-containing materials are used or that the 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 design capacity category specified for the tank.~~

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) Procedure for determining no detectable organic emissions for the purpose of complying with this Subpart:

1) The test must be conducted in accordance with the procedures specified in Method 21 of 40 CFR 60, appendix A, 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 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 Method 21 of 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, except the instrument response factor criteria in Section 3.1.2(a) of 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 Method 21 of 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.

5) Calibration gases must be as follows:

A) Zero air (less than 10 ppmv hydrocarbon in air), and

B) A mixture of methane in air at a concentration of approximately, but less than, 10,000 ppmv.

6) The background level must be determined according to the procedures in Method 21 of 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.

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 Method 21 of 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111. 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 21 Ill. Reg. _____, effective _____)

Section 725.985 Standards: Tanks

~~a) This Section applies to owners and operators of tanks subject to this Subpart into which any hazardous waste is placed except for the following tanks:~~

~~1) A tank in which all hazardous waste entering the tank meets the conditions specified in Section 725.983(c); or~~

~~2) A tank used for biological treatment of hazardous waste in accordance with the requirements of Section 725.983(c)(2)(D).~~

a) The provisions of this Section apply to the control of air pollutant emissions from tanks for which Section 725.983(b) references the use of this Section for such air emission control.

b) The owner or operator shall ~~place the hazardous waste into one of the following tanks~~control air pollutant emissions from each tank subject to this Section in accordance with the following requirements, as applicable:

~~1) A tank equipped with a cover (e.g., a fixed roof) that is vented through a closed-vent system to a control device in accordance with the requirements specified in subsection (d) below;~~

~~2) A tank equipped with a fixed roof and internal floating roof in accordance with the requirements of Section 725.991;~~

~~3) A tank equipped with an external floating roof in accordance with the requirements of Section 725.991; or~~

~~4) A pressure tank that is designed to operate as a closed system such that the tank operates with no detectable organic emissions at all times that hazardous waste is in the tank except as provided for in subsection (g) below.~~

~~c) As an alternative to complying with subsection (b) above, an owner or operator may place hazardous waste in a tank equipped with a cover (e.g., a fixed roof) meeting the requirements specified in subsection (d)(1) below when the hazardous waste is determined to meet all of the following conditions:~~

~~1) The hazardous waste is neither mixed, stirred, agitated, nor circulated within the tank by the owner or operator using a process that results in splashing, frothing, or visible turbulent flow on the waste surface during normal process operations;~~

~~2) The hazardous waste in the tank is not heated by the owner or operator except during conditions requiring that the waste be heated to prevent the waste from freezing or to maintain adequate waste flow conditions for continuing normal process operations;~~

~~3) The hazardous waste in the tank is not treated by the owner or operator using a waste stabilization process or a process that produces an exothermic reaction; and~~

~~4) The maximum organic vapor pressure of the hazardous waste in the tank as determined using the procedure specified in Section 725.984(c) is less than the following applicable value:~~

1) For a tank that manages hazardous waste which meets all of the conditions specified in subsections (b)(1)(A) through (b)(1)(C) of this Section, the owner or operator shall control air pollutant emissions from the tank in accordance with the Tank Level 1 controls specified in subsection (c) of this Section or the Tank Level 2 controls specified in subsection (d) of this Section.

A) The hazardous waste in the tank has a maximum organic vapor pressure that is less than the maximum organic vapor pressure limit for the tank's design capacity category, as follows:

~~A~~i) ~~If the~~For a tank design capacity ~~is~~ equal to or greater than 151 m^3 (5333 ft^3 or 39,887 gal), ~~then~~ the maximum organic vapor pressure ~~must be less than~~limit for the tank is 5.2 kPa (0.75 psia or 39 mm Hg);

~~B~~ii) ~~If the~~For a tank design capacity ~~is~~ equal to or greater than 75 m^3 (2649 ft^3 or 19,810 gal) but less than 151 m^3 (5333 ft^3 or 39,887 gal), ~~then~~ the maximum organic vapor pressure ~~must be less than~~limit for the tank is 27.6 kPa (4.0 psia or 207 mm Hg); or

~~C~~iii) ~~If the~~For a tank design capacity is less than 75 m^3 (2649 ft^3 or 19,810 gal), ~~then the maximum organic vapor pressure then~~ the maximum organic vapor pressure ~~must be less than~~limit for the tank is 76.6 kPa (11.1 psia or 574 mm Hg).

~~d) To comply with subsection (b)(1) above, the owner or operator shall design, install, operate, and maintain a cover that vents the organic vapors emitted from hazardous waste in the tank through a closed-vent system connected to a control device.~~

1) The cover must be designed and operated to meet the following requirements:

A) The cover and all cover openings (e.g., access hatches, sampling ports, and gauge wells) must be designed to operate with no detectable organic emissions when all cover openings are secured in a closed, sealed position.

B) Each cover opening must be secured in a closed, sealed position (e.g., covered by a gasketed lid or cap) at all times that hazardous waste is in the tank except as provided for in subsection (f) below.

2) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 725.988.

e) The owner and operator shall install, operate, and maintain enclosed pipes or other closed systems for the transfer of hazardous waste as described in subsection (e)(1) or (e)(2) below.

BOARD NOTE: U.S. EPA considers a drain system that meets the requirements of 40 CFR 61.346(a)(1) or (b)(1) through (b)(3) to be a "closed-system". The Board intends that this meaning be included in the use of that term for the purposes of this Subpart.

1) Transfer all hazardous waste to the tank from another tank, surface impoundment, or container subject to this Subpart, except for those hazardous wastes that meet the conditions specified in Section 725.983(c); and

2) Transfer all hazardous waste from the tank to another tank, surface impoundment, or container subject to this Subpart, except for those hazardous wastes that meet the conditions specified in Section 725.983(c).

f) Each cover opening must be secured in a closed, sealed position (e.g., covered by a gasketed lid) at all times that hazardous waste is in the tank except when it is necessary to use the cover opening to:

1) Add, remove, inspect, or sample the material in the tank;

2) Inspect, maintain, repair, or replace equipment located inside the tank; or

~~3) Vent gases or vapors from the tank to a closed-vent system connected to a control device that is designed and operated in accordance with the requirements of Section 725.988.~~

~~g) One or more safety devices that vent directly to the atmosphere may be used on the tank, cover, closed-vent system, or control device provided each safety device meets all of the following conditions:~~

~~1) The safety device is not used for planned or routine venting of organic vapors from the tank or the closed-vent system connected to a control device; and~~

~~2) The safety device remains in a closed, sealed position at all times except when an unplanned event requires that the device open for the purpose of preventing physical damage or permanent deformation of the tank, cover, closed-vent system, or control device in accordance with good engineering and safety practices for handling flammable, combustible, explosive, or other hazardous materials. An example of an unplanned event is a sudden power outage.~~

B) The hazardous waste in the tank is not heated by the owner or operator to a temperature that is greater than the temperature at which the maximum organic vapor pressure of the hazardous waste is determined for the purpose of complying with subsection (b)(1)(A) of this Section.

C) The hazardous waste in the tank is not treated by the owner or operator using a waste stabilization process, as defined in Section 725.981.

2) For a tank that manages hazardous waste that does not meet all of the conditions specified in subsections (b)(1)(A) through (b)(1)(C) of this Section, the owner or operator shall control air pollutant emissions from the tank by using Tank Level 2 controls in accordance with the requirements of subsection (d) of this Section. Examples of tanks required to use Tank Level 2 controls include the following: a tank used for a waste stabilization process and a tank for which the hazardous waste in the tank has a maximum organic vapor pressure that is equal to or greater than the maximum organic vapor pressure limit for the tank's design capacity category, as specified in subsection (b)(1)(A) of this Section.

c) Owners and operators controlling air pollutant emissions from a tank using Tank Level 1 controls shall meet the requirements specified in subsections (c)(1) through (c)(4) of this Section:

1) The owner or operator shall determine the maximum organic vapor pressure for a hazardous waste to be managed in the tank using Tank Level 1 controls before the first time the hazardous waste is placed in the tank. The maximum organic vapor pressure must be determined using the procedures specified in Section 725.984(c). Thereafter, the owner or operator shall perform a new determination whenever changes to the hazardous waste managed in the tank could potentially cause the maximum organic vapor pressure to increase to a level that is equal to or greater than the maximum organic vapor pressure limit for the tank design capacity category specified in subsection (b)(1)(A) of this Section, as applicable to the tank.

2) The tank must be equipped with a fixed roof designed to meet the following specifications:

A) The fixed roof and its closure devices must be designed to form a continuous barrier over the entire surface area of the hazardous waste in the tank. The fixed roof may be a separate cover installed on the tank (e.g., a removable cover mounted on an open-top tank) or may be an integral part of the tank structural design (e.g., a horizontal cylindrical tank equipped with a hatch).

B) The fixed roof must be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between roof Section joints or between the interface of the roof edge and the tank wall.

C) Each opening in the fixed roof must be either:

i) Equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device; or

ii) Connected by a closed-vent system that is vented to a control device. The control device must remove or destroy organics in the vent stream, and

it must be operating whenever hazardous waste is managed in the tank.

D) The fixed roof and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and which will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices must include the following: organic vapor permeability; the effects of any contact with the hazardous waste or its vapors managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.

3) Whenever a hazardous waste is in the tank, the fixed roof must be installed with each closure device secured in the closed position, except as follows:

A) Opening of closure devices or removal of the fixed roof is allowed at the following times:

i) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

ii) To remove accumulated sludge or other residues from the bottom of tank.

B) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the tank internal pressure in accordance with the tank design specifications. The device must be designed to operate with no detectable organic emissions when the device is secured in the closed

position. The settings at which the device opens must be established such that the device remains in the closed position whenever the tank internal pressure is within the internal pressure operating range determined by the owner or operator based on the tank manufacturer recommendations; applicable regulations; fire protection and prevention codes; standard engineering codes and practices; or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the tank internal pressure exceeds the internal pressure operating range for the tank as a result of loading operations or diurnal ambient temperature fluctuations.

C) Opening of a safety device, as defined in Section 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.

4) The owner or operator shall inspect the air emission control equipment in accordance with the following requirements.

A) The fixed roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof Sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

B) The owner or operator shall perform an initial inspection of the fixed roof and its closure devices on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year, except under the special conditions provided for in subsection (l) of this Section.

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

D) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).

d) Owners and operators controlling air pollutant emissions from a tank using Tank Level 2 controls shall use one of the following tanks:

1) A fixed-roof tank equipped with an internal floating roof in accordance with the requirements specified in subsection (e) of this Section;

2) A tank equipped with an external floating roof in accordance with the requirements specified in subsection (f) of this Section;

3) A tank vented through a closed-vent system to a control device in accordance with the requirements specified in subsection (g) of this Section;

4) A pressure tank designed and operated in accordance with the requirements specified in subsection (h) of this Section; or

5) A tank located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device in accordance with the requirements specified in subsection (i) of this Section.

e) The owner or operator that controls air pollutant emissions from a tank using a fixed-roof with an internal floating roof shall meet the requirements specified in subsections (e)(1) through (e)(3) of this Section.

1) The tank must be equipped with a fixed roof and an internal floating roof in accordance with the following requirements:

A) The internal floating roof must be designed to float on the liquid surface except when the floating roof must be supported by the leg supports.

B) The internal floating roof must be equipped with a continuous seal between the wall of the tank and the floating roof edge that meets either of the following requirements:

i) A single continuous seal that is either a liquid-mounted seal or a metallic shoe seal, as defined in Section 725.981; or

ii) Two continuous seals mounted one of this Section the other. The lower seal may be a vapor-mounted seal.

C) The internal floating roof must meet the following specifications:

i) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

ii) Each opening in the internal floating roof must be equipped with a gasketed cover or a gasketed lid except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains.

iii) Each penetration of the internal floating roof for the purpose of sampling must have a slit fabric cover that covers at least 90% of the opening.

iv) Each automatic bleeder vent and rim space vent must be gasketed.

v) Each penetration of the internal floating roof that allows for passage of a ladder must have a gasketed sliding cover.

vi) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof must have a flexible fabric sleeve seal or a gasketed sliding cover.

2) The owner or operator shall operate the tank in accordance with the following requirements:

A) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling must be continuous and must be completed as soon as practical.

B) Automatic bleeder vents are to be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.

C) Prior to filling the tank, each cover, access hatch, gauge float well or lid on any opening in the internal floating roof must be bolted or fastened closed (i.e., no visible gaps). Rim space vents are to be set to open only when the internal floating roof is not floating or when the pressure beneath the rim exceeds the manufacturer's recommended setting.

3) The owner or operator shall inspect the internal floating roof in accordance with the procedures specified as follows:

A) The floating roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, the following: when the internal floating roof is not floating on the surface of the liquid inside the tank; when liquid has accumulated on top of the internal floating roof; when any portion of the roof seals have detached from the roof rim; when holes, tears, or other openings are visible in the seal fabric; when the gaskets no longer close off the hazardous waste surface from the atmosphere; or when the slotted membrane has more than 10% open area.

B) The owner or operator shall inspect the internal floating roof components as follows, except as provided in subsection (e)(3)(C) of this Section:

i) Visually inspect the internal floating roof components through openings on the fixed-roof (e.g., manholes and roof hatches) at least once every 12 months after initial fill, and

ii) Visually inspect the internal floating roof, primary seal, secondary seal (if one is in service), gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least once every 10 years.

C) As an alternative to performing the inspections specified in subsection (e)(3)(B) of this Section for an internal

floating roof equipped with two continuous seals mounted one above the other, the owner or operator may visually inspect the internal floating roof, primary and secondary seals, gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least every five years.

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

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

ii) When a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the Agency as soon as possible, but no later than seven calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Regional Administrator at least seven calendar days before refilling the tank.

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

F) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).

f) The owner or operator that controls air pollutant emissions from a tank using an external floating roof shall meet the requirements specified in subsections (f)(1) through (f)(3) of this Section.

1) The owner or operator shall design the external floating roof in accordance with the following requirements:

A) The external floating roof must be designed to float on the liquid surface except when the floating roof must be supported by the leg supports.

B) The floating roof must be equipped with two continuous seals, one above the other, between the wall of the tank and the roof edge. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.

i) The primary seal must be a liquid-mounted seal or a metallic shoe seal, as defined in Section 725.981. The total area of the gaps between the tank wall and the primary seal must not exceed 212 square centimeters (cm^2) per meter (10.0 in^2 per foot) of tank diameter, and the width of any portion of these gaps must not exceed 3.8 centimeters (cm) (1.5 inches). If a metallic shoe seal is used for the primary seal, the metallic shoe seal must be designed so that one end extends into the liquid in the tank and the other end extends a vertical distance of at least 61 centimeters above the liquid surface.

ii) The secondary seal must be mounted above the primary seal and cover the annular space between the floating roof and the wall of the tank. The total area of the gaps between the tank wall and the secondary seal must not exceed 21.2 cm^2 per meter (1.0 in^2 per foot) of tank diameter, and the width of any portion of these gaps must not exceed 1.3 cm (0.5 inch).

C) The external floating roof must meet the following specifications:

i) Except for automatic bleeder vents (vacuum breaker vents) and rim space vents, each opening in a noncontact external floating roof must provide a projection below the liquid surface.

ii) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof must be equipped with a gasketed cover, seal, or lid.

iii) Each access hatch and each gauge float well must be equipped with a cover designed to be bolted or fastened when the cover is secured in the closed position.

iv) Each automatic bleeder vent and each rim space vent must be equipped with a gasket.

v) Each roof drain that empties into the liquid managed in the tank must be equipped with a slotted membrane fabric cover that covers at least 90% of the area of the opening.

vi) Each unslotted and slotted guide pole well must be equipped with a gasketed sliding cover or a flexible fabric sleeve seal.

vii) Each unslotted guide pole must be equipped with a gasketed cap on the end of the pole.

viii) Each slotted guide pole must be equipped with a gasketed float or other device which closes off the liquid surface from the atmosphere.

ix) Each gauge hatch and each sample well must be equipped with a gasketed cover.

2) The owner or operator shall operate the tank in accordance with the following requirements:

A) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling must be continuous and must be completed as soon as practical.

B) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof must be secured and maintained in a closed position at all times except when the closure device must be open for access.

C) Covers on each access hatch and each gauge float well must be bolted or fastened when secured in the closed position.

D) Automatic bleeder vents must be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.

E) Rim space vents must be set to open only at those times that the roof is being floated off the roof leg supports or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

F) The cap on the end of each unslotted guide pole must be secured in the closed position at all times except when measuring the level or collecting samples of the liquid in the tank.

G) The cover on each gauge hatch or sample well must be secured in the closed position at all times except when the hatch or well must be opened for access.

H) Both the primary seal and the secondary seal must completely cover the annular space between the external floating roof and the wall of the tank in a continuous fashion except during inspections.

3) The owner or operator shall inspect the external floating roof in accordance with the procedures specified as follows:

A) The owner or operator shall measure the external floating roof seal gaps in accordance with the following requirements:

i) The owner or operator shall perform measurements of gaps between the tank wall and the primary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every five years.

ii) The owner or operator shall perform measurements of gaps between the tank wall and the secondary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every year.

iii) If a tank ceases to hold hazardous waste for a period of one year or more, subsequent introduction of hazardous waste into the tank must be considered an initial operation for the purposes of subsections (f)(3)(A)(i) and (f)(3)(A)(ii) of this Section.

iv) The owner or operator shall determine the total surface area of gaps in the primary seal and in the secondary seal individually using the procedure set forth in subsection (f)(4)(D) of this Section.

v) In the event that the seal gap measurements do not conform to the specifications in subsection (f)(1)(B) of this Section, the owner or operator must repair the defect in accordance with the requirements of subsection (k) of this Section.

vi) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).

B) The owner or operator shall visually inspect the external floating roof in accordance with the following requirements:

i) The floating roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to any of the following: holes, tears, or other openings in the rim seal or seal fabric of the floating roof; a rim seal detached from the floating roof; all or a portion of the floating roof deck being submerged of this Section the surface of the liquid in the tank; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

ii) The owner or operator shall perform an initial inspection of the external floating roof and its closure devices on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in subsection (l) of this Section.

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

iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).

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

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

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

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

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

D) Procedure for determining gaps in the primary seal and in the secondary seal for the purposes of subsection (f)(3)(A)(iv) of this Section:

i) The seal gap measurements must be performed at one or more floating roof levels when the roof is floating off the roof supports.

ii) Seal gaps, if any, must be measured around the entire perimeter of the floating roof in each place where a 0.32-cm (_-inch) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the tank and measure the circumferential distance of each such location.

iii) For a seal gap measured under this subsection (f)(3), the gap surface area must be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

iv) The total gap area must be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal perimeter of the tank. These total gap areas for the primary seal and secondary seal are then are compared to the respective standards for the seal type, as specified in subsection (f)(1)(B) of this Section.

BOARD NOTE: Subsections (f)(3)(D)(i) through (f)(3)(D)(iv) correspond with 40 CFR 265.1085(f)(3)(i)(D)(1) through (f)(3)(i)(D)(4), which the Board has codified here to comport with Illinois Administrative Code format requirements.

g) The owner or operator that controls air pollutant emissions from a tank by venting the tank to a control device shall meet the requirements specified in subsections (g)(1) through (g)(3) of this Section.

1) The tank must be covered by a fixed roof and vented directly through a closed-vent system to a control device in accordance with the following requirements:

A) The fixed roof and its closure devices must be designed to form a continuous barrier over the entire surface area of the liquid in the tank.

B) Each opening in the fixed roof not vented to the control device must be equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices must be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device must be designed to operate with no detectable organic emissions.

C) The fixed roof and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices must include the following: organic vapor permeability; the effects of any contact with the liquid and its vapor managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.

D) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 725.988.

2) Whenever a hazardous waste is in the tank, the fixed roof must be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except as follows:

A) Venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times:

i) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

ii) To remove accumulated sludge or other residues from the bottom of a tank.

B) Opening of a safety device, as defined in Section 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.

3) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the following procedures:

A) The fixed roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to any of the following: visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

B) The closed-vent system and control device must be inspected and monitored by the owner or operator in accordance with the procedures specified in Section 725.988.

C) The owner or operator shall perform an initial inspection of the air emission control equipment on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in subsection (l) of this Section.

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

E) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).

h) The owner or operator that controls air pollutant emissions by using a pressure tank must meet the following requirements.

1) The tank shall be designed not to vent to the atmosphere as a result of compression of the vapor headspace in the tank during filling of the tank to its design capacity.

2) All tank openings must be equipped with closure devices designed to operate with no detectable organic emissions as determined using the procedure specified in Section 725.984(d).

3) Whenever a hazardous waste is in the tank, the tank must be operated as a closed system that does not vent to the atmosphere except in the event that a safety device, as defined in Section 725.981, is required to open to avoid an unsafe condition.

i) The owner or operator that controls air pollutant emissions by using an enclosure vented through a closed-vent system to an enclosed combustion control device shall meet the requirements specified in subsections (i)(1) through (i)(4) of this Section.

1) The tank must be located inside an enclosure. The enclosure must be designed and operated in accordance with the criteria for a permanent total enclosure, as specified in "Procedure T-- Criteria for and Verification of a Permanent or Temporary Total

Enclosure" under 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" initially when the enclosure is first installed and, thereafter, annually.

2) The enclosure must be vented through a closed-vent system to an enclosed combustion control device that is designed and operated in accordance with the standards for either a vapor incinerator, boiler, or process heater specified in Section 725.988.

3) Safety devices, as defined in Section 725.981, may be installed and operated as necessary on any enclosure, closed-vent system, or control device used to comply with the requirements of subsections (i)(1) and (i)(2) of this Section.

4) The owner or operator shall inspect and monitor the closed-vent system and control device, as specified in Section 725.988.

j) The owner or operator shall transfer hazardous waste to a tank subject to this Section in accordance with the following requirements:

1) Transfer of hazardous waste, except as provided in subsection (j)(2) of this Section, to the tank from another tank subject to this Section or from a surface impoundment subject to Section 725.986 must be conducted using continuous hard-piping or another closed system that does not allow exposure of the hazardous waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the requirements of 40 CFR 63, subpart RR, "National Emission Standards for Individual Drain Systems", incorporated by reference in 35 Ill. Adm. Code 720.111.

2) The requirements of subsection (j)(1) of this Section do not apply when transferring a hazardous waste to the tank under any of the following conditions:

A) The hazardous waste meets the average VO concentration conditions specified in Section 725.983(c)(1) at the point of waste origination.

B) The hazardous waste has been treated by an organic destruction or removal process to meet the requirements in Section 725.983(c)(2).

k) The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of subsections (c)(4), (e)(3), (f)(3), or (g)(3) of this Section as follows:

1) The owner or operator shall make first efforts at repair of the defect no later than five calendar days after detection, and repair shall be completed as soon as possible but no later than 45 calendar days after detection except as provided in subsection (k)(2) of this Section.

2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the hazardous waste normally managed in the tank. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Repair of the defect must be completed before the process or unit resumes operation.

l) Following the initial inspection and monitoring of the cover as required by the applicable provisions of this Subpart, subsequent inspection and monitoring may be performed at intervals longer than one year under the following special conditions:

1) Where inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions, then the owner or operator may designate a cover as an "unsafe to inspect and monitor cover" and comply with all of the following requirements:

A) Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required.

B) Develop and implement a written plan and schedule to inspect and monitor the cover, using the procedures

specified in the applicable Section of this Subpart, as frequently as practicable during those times when a worker can safely access the cover.

2) In the case when a tank is buried partially or entirely underground, an owner or operator is required to inspect and monitor, as required by the applicable provisions of this Section, only those portions of the tank cover and those connections to the tank (e.g., fill ports, access hatches, gauge wells, etc.) that are located on or above the ground surface.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 725.986 Standards: Surface Impoundments

a) The provisions of this Section applies to ~~owners and operators of~~the control of air pollutant emissions from surface impoundments ~~subject to this Subpart into which any hazardous waste is placed except for the following surface impoundments:~~for which Section 725.983(b) of this Subpart references the use of this Section for such air emission control.

~~1) A surface impoundment in which all hazardous waste entering the surface impoundment meets the conditions specified in Section 725.983(c); or~~

~~2) A surface impoundment used for biological treatment of hazardous waste in accordance with the requirements of Section 725.983(c)(2)(iv).~~

b) The owner or operator shall ~~place the hazardous waste into a surface impoundment equipped with a cover (e.g., an air-supported structure or a rigid cover) that is vented through a closed-vent system to a control device meeting the requirements specified in subsection (d) below.~~control air pollutant emissions from the surface impoundment by installing and operating either of the following:

1) A floating membrane cover in accordance with the provisions specified in subsection (c) of this Section; or

2) A cover that is vented through a closed-vent system to a control device in accordance with the provisions specified in subsection (d) of this Section.

~~c) As an alternative to complying with subsection (b) above, an owner or operator may place hazardous waste in a surface impoundment equipped~~

~~with a floating membrane cover meeting the requirements specified in subsection (e) below when the hazardous waste is determined to meet all of the following conditions:~~

~~1) The hazardous waste is neither mixed, stirred, agitated, nor circulated within the surface impoundment by the owner or operator using a process that results in splashing, frothing, or visible turbulent flow on the waste surface during normal process operations;~~

~~2) The hazardous waste in the surface impoundment is not heated by the owner or operator; and~~

~~3) The hazardous waste in the surface impoundment is not treated by the owner or operator using a waste stabilization process or a process that produces an exothermic reaction.~~

~~d) To comply with subsection (b)(1) above, the owner or operator shall design, install, operate, and maintain a cover that vents the organic vapors emitted from hazardous waste in the surface impoundment through a closed-vent system connected to a control device.~~

~~1) The cover must be designed, installed, operated, and maintained to meet the following requirements:~~

~~A) The cover and all cover openings (e.g., access hatches, sampling ports, and gauge wells) must be designed to operate with no detectable organic emissions when all cover openings are secured in a closed, sealed position.~~

~~B) Each cover opening must be secured in the closed, sealed position (e.g., covered by a gasketed lid or cap) at all times that hazardous waste is in the surface impoundment, except as provided for in subsection (g) below.~~

~~C) The closed-vent system and control device must be designed and operated in accordance with Section 725.988.~~

~~e) To comply with subsection (c) above, the owner or operator shall design, install, operate, and maintain a floating membrane cover that meets all of the following requirements:~~

~~1) The floating membrane cover must be designed, installed, and operated such that at all times when hazardous waste is in the~~

surface impoundment, the entire surface area of the hazardous waste is enclosed by the cover, and any air spaces underneath the cover are not vented to the atmosphere except during conditions specified in subsection (h) below.

2) The floating membrane cover and all cover openings (e.g., access hatches, sampling ports, and gauge wells) must be designed to operate with no detectable organic emissions when all cover openings are secured in a closed, sealed position.

3) Each cover opening must be secured in a closed, sealed position (e.g., covered by a gasketed lid or cap) at all times that hazardous waste is in the surface impoundment except as provided for in subsections (g)(1) through (g)(3) below.

4) The synthetic membrane material used for the floating membrane cover must be either:

A) High density polyethylene with a thickness no less than 2.5 mm; or

B) A material or a composite of different materials determined to have the following properties:

i) Organic permeability properties that are equivalent to those of the material specified in subsection (e)(4)(A) above; and

ii) Chemical and physical properties that maintain the material integrity for as long as the cover is in use. Factors that must be considered in selecting the material include: the effects of contact with the waste managed in the impoundment, weather exposure, and cover installation and operation practices.

f) The owner or operator shall install, operate, and maintain enclosed pipes or other closed systems for the transfer of hazardous waste as described in subsection (f)(1) or (f)(2) below.

BOARD NOTE: U.S. EPA considers a drain system that meets the requirements of 40 CFR 61.346(a)(1) or (b)(1) through (b)(3) to be a "closed-system". The Board intends that this meaning be included in the use of that term for the purposes of this Subpart.

1) Transfer all hazardous waste to the surface impoundment from another tank, surface impoundment, or container subject to this Subpart, except for those hazardous wastes that meet the conditions specified in Section 725.983(c); and

2) Transfer all hazardous waste from the surface impoundment to another tank, surface impoundment, or container subject to this Subpart, except for those hazardous wastes that meet the conditions specified in Section 725.983(c).

g) Each cover opening must be secured in the closed, sealed position (e.g., covered by a gasketed lid or cap) at all times that hazardous waste is in the surface impoundment except when it is necessary to use the cover opening to:

1) Add, remove, inspect, or sample the material in the surface impoundment;

2) Inspect, maintain, repair, or replace equipment located underneath the cover;

3) Remove treatment residues from the surface impoundment in accordance with the requirements of 35 Ill. Adm. Code 728.104; or

4) Vent gases or vapors from the surface impoundment to a closed-vent system connected to a control device that is designed and operated in accordance with the requirements of Section 725.988.

h) One or more safety devices that vent directly to the atmosphere may be installed on the cover, closed-vent system, or control device provided each device meets all of the following conditions:

1) The safety device is not used for planned or routine venting of organic vapors from the surface impoundment or the closed-vent system connected to a control device; and

2) The safety device remains in a closed, sealed position at all times except when an unplanned event requires that the device open for the purpose of preventing physical damage or permanent deformation of the cover, closed-vent system, or control device in accordance with good engineering and safety practices for handling flammable, combustible, explosive, or other hazardous materials. An example of an unplanned event is a sudden power outage.

c) The owner or operator that controls air pollutant emissions from a surface impoundment using a floating membrane cover must meet the requirements specified in subsections (c)(1) through (c)(3) of this Section.

1) The surface impoundment must be equipped with a floating membrane cover designed to meet the following specifications:

A) The floating membrane cover must be designed to float on the liquid surface during normal operations and form a continuous barrier over the entire surface area of the liquid.

B) The cover must be fabricated from a synthetic membrane material that is either:

i) High density polyethylene (HDPE) with a thickness no less than 2.5 millimeters (mm) (0.10 inch); or

ii) A material or a composite of different materials determined to have both organic permeability properties that are equivalent to those of the material listed in subsection (c)(1)(B)(i) of this Section and chemical and physical properties that maintain the material integrity for the intended service life of the material.

C) The cover must be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between cover section seams or between the interface of the cover edge and its foundation mountings.

D) Except as provided for in subsection (c)(1)(E) of this Section, each opening in the floating membrane cover must be equipped with a closure device so designed as to operate when that the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device.

E) The floating membrane cover may be equipped with one or more emergency cover drains for removal of stormwater. Each emergency cover drain must be

equipped with a slotted membrane fabric cover that covers at least 90% of the area of the opening or a flexible fabric sleeve seal.

F) The closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the closure devices throughout their intended service life. Factors to be considered when selecting the materials of construction and designing the cover and closure devices must include the following: the organic vapor permeability; the effects of any contact with the liquid and its vapor managed in the surface impoundment; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the surface impoundment on which the floating membrane cover is installed.

2) Whenever a hazardous waste is in the surface impoundment, the floating membrane cover must float on the liquid and each closure device must be secured in the closed position except as follows:

A) Opening of closure devices or removal of the cover is allowed at the following times:

i) To provide access to the surface impoundment for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the surface impoundment, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly replace the cover and secure the closure device in the closed position, as applicable.

ii) To remove accumulated sludge or other residues from the bottom of surface impoundment.

B) Opening of a safety device, as defined in Section 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.

3) The owner or operator shall inspect the floating membrane cover in accordance with the following procedures:

A) The floating membrane cover and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover section seams or between the interface of the cover edge and its foundation mountings; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

B) The owner or operator shall perform an initial inspection of the floating membrane cover and its closure devices on or before the date that the surface impoundment becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in subsection (g) of this Section.

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

D) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 725.990(c).

d) The owner or operator that controls air pollutant emissions from a surface impoundment using a cover vented to a control device shall meet the requirements specified in subsections (d)(1) through (d)(3) of this Section.

1) The surface impoundment must be covered by a cover and vented directly through a closed-vent system to a control device in accordance with the following requirements:

A) The cover and its closure devices must be designed to form a continuous barrier over the entire surface area of the liquid in the surface impoundment.

B) Each opening in the cover not vented to the control device must be equipped with a closure device. If the pressure in the vapor headspace underneath the cover is less than

atmospheric pressure when the control device is operating, the closure devices must be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the cover is equal to or greater than atmospheric pressure when the control device is operating, the closure device must be designed to operate with no detectable organic emissions using the procedure specified in Section 725.984(d).

C) The cover and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the cover and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the cover and closure devices must include the following: the organic vapor permeability; the effects of any contact with the liquid or its vapors managed in the surface impoundment; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the surface impoundment on which the cover is installed.

D) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 725.988.

2) Whenever a hazardous waste is in the surface impoundment, the cover must be installed with each closure device secured in the closed position and the vapor headspace underneath the cover vented to the control device except as follows:

A) Venting to the control device is not required, and opening of closure devices or removal of the cover is allowed at the following times:

i) To provide access to the surface impoundment for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the surface impoundment, or when a

worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the surface impoundment.

ii) To remove accumulated sludge or other residues from the bottom of surface impoundment.

B) Opening of a safety device, as defined in Section 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.

3) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the following procedures:

A) The surface impoundment cover and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover section seams or between the interface of the cover edge and its foundation mountings; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

B) The closed-vent system and control device must be inspected and monitored by the owner or operator in accordance with the procedures specified in Section 725.988.

C) The owner or operator shall perform an initial inspection of the air emission control equipment on or before the date that the surface impoundment becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in subsection (g) of this Section.

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

E) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 725.990(c).

e) The owner or operator shall transfer hazardous waste to a surface impoundment subject to this Section in accordance with the following requirements:

1) Transfer of hazardous waste, except as provided in subsection (e)(2) of this Section, to the surface impoundment from another surface impoundment subject to this Section or from a tank subject to Section 725.985 must be conducted using continuous hard-piping or another closed system that does not allow exposure of the waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the requirements of 40 CFR 63, Subpart RR, "National Emission Standards for Individual Drain Systems", incorporated by reference in 35 Ill. Adm. Code 720.111.

2) The requirements of subsection (e)(1) of this Section do not apply when transferring a hazardous waste to the surface impoundment under either of the following conditions:

A) The hazardous waste meets the average VO concentration conditions specified in Section 725.983(c)(1) at the point of waste origination.

B) The hazardous waste has been treated by an organic destruction or removal process to meet the requirements in Section 725.983(c)(2).

f) The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of subsection (c)(3) or (d)(3) of this Section as follows:

1) The owner or operator shall make first efforts at repair of the defect no later than five calendar days after detection, and repair must be completed as soon as possible but no later than 45 calendar days after detection except as provided in subsection (f)(2) of this Section.

2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the surface

impoundment and no alternative capacity is available at the site to accept the hazardous waste normally managed in the surface impoundment. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Repair of the defect must be completed before the process or unit resumes operation.

g) Following the initial inspection and monitoring of the cover as required by the applicable provisions of this Subpart, subsequent inspection and monitoring may be performed at intervals longer than one year in the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions. In this case, the owner or operator may designate the cover as an "unsafe to inspect and monitor cover" and comply with all of the following requirements:

1) Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required.

2) Develop and implement a written plan and schedule to inspect and monitor the cover using the procedures specified in the applicable Section of this Subpart as frequently as practicable during those times when a worker can safely access the cover.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 725.987 Standards: Containers

a) The provisions of this Section applies to the ~~owners and operators of~~control of air pollutant emissions from containers ~~having design capacities greater than 0.1 m^3 (3.5 ft^3 or 26.4 gal) subject to this Subpart into which any hazardous waste is placed, except for a container in which all hazardous waste entering the container meets the conditions specified in Section 725.983(c).~~for which Section 725.983(b) references the use of this Section for such air emission control.

~~b) An owner or operator shall manage hazardous waste in containers using the following procedures:~~

~~1) The owner or operator shall place the hazardous waste into one of the following containers, except when a container is used for hazardous waste treatment as required by subsection (b)(2) below:~~

A) A container that is equipped with a cover that operates with no detectable organic emissions when all container openings (e.g., lids, bungs, hatches, and sampling ports) are secured in a closed, sealed position. The owner or operator shall determine that a container operates with no detectable emissions by testing each opening on the container for leaks in accordance with Method 21 in 40 CFR 60, Appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, the first time any portion of the hazardous waste is placed into the container. If a leak is detected and cannot be repaired immediately, the hazardous waste must be removed from the container and the container not used to meet the requirements of this subsection until the leak is repaired and the container is retested.

B) A container having a design capacity less than or equal to 0.46 m^3 (16.2 ft^3 or 121.5 gal) that is equipped with a cover and complies with all applicable U.S. Department of Transportation regulations on packaging hazardous waste for transport under 49 CFR 178, incorporated by reference in 35 Ill. Adm. Code 720.111.

i) A container that is managed in accordance with the requirements of 49 CFR 178 for the purpose of complying with this Subpart is not subject to any exceptions to the 49 CFR 178 regulations, except as noted in subsection (b)(1)(B)(ii) above.

ii) A lab pack that is managed in accordance with the requirements of 49 CFR 178 for the purpose of complying with this Subpart may comply with the exceptions for combination packagings specified in 49 CFR 173.12(b).

C) A container that is attached to or forms a part of any truck, trailer, or railcar and that has been demonstrated within the preceding 12 months to be organic vapor tight when all container openings are in a closed, sealed position (e.g., the container hatches or lids are gasketed and latched). For the purpose of meeting the requirements of this subsection, a container is organic vapor tight if the container sustains a pressure change of not more than 0.75 kPa (0.11 psig or 5.6 mm Hg) within 5 minutes after it is pressurized to a minimum of 4.5 kPa

(0.65 psig or 33.7 mm Hg). This condition is to be demonstrated using the pressure test specified in Method 27 of 40 CFR 60, Appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, and a pressure measurement device that has a precision of ± 2.5 mm water and that is capable of measuring above the pressure at which the container is to be tested for vapor tightness.

2) An owner or operator treating hazardous waste in a container by either a waste stabilization process, any process that requires the addition of heat to the waste, or any process that produces an exothermic reaction must meet the following requirements:

A) Whenever it is necessary for the container to be open during the treatment process, the container must be located inside an enclosure that is vented through a closed-vent system to a control device.

B) The enclosure must be a structure that is designed and operated in accordance with the following requirements:

i) The enclosure must be a structure that is designed and operated with sufficient airflow into the structure to capture the organic vapors emitted from the hazardous waste in the container and vent the vapors through the closed-vent system to the control device.

ii) 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 to direct airflow into the enclosure. The pressure drop across each opening in the enclosure must be maintained at a pressure below atmospheric pressure such that whenever an open container is placed inside the enclosure no organic vapors released from the container exit the enclosure through the opening. The owner or operator shall determine that an enclosure achieves this condition by measuring the pressure drop across each opening in the enclosure. If the pressure within the enclosure is equal to or greater than

atmospheric pressure then the enclosure does not meet the requirements of this Section.

C) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 725.988.

3) An owner or operator transferring hazardous waste into a container having a design capacity greater than 0.46 m^3 (16.2 ft^3 or 121.5 gal) shall meet the following requirements:

A) Hazardous waste transfer by pumping must be performed using a conveyance system that uses a tube (e.g., pipe, hose) to add the waste into the container. During transfer of the waste into the container, the cover must remain in place and all container openings must be maintained in a closed, sealed position except for those openings through which the tube enters the container and as provided for in subsection (c) below. The tube must be positioned in a manner such that either the:

i) Tube outlet continuously remains submerged below the waste surface at all times waste is flowing through the tube;

ii) Lower bottom edge of the tube outlet is located at a distance no greater than two inside diameters of the tube or 15.25 cm (0.50 ft or 6.0 in), whichever distance is greater, from the bottom of the container at all times waste is flowing through the tube; or

iii) Tube is connected to a permanent port mounted on the bottom of the container so that the lower edge of the port opening inside the container is located at a distance equal to or less than 15.25 cm (0.50 ft or 6.0 in) from the container bottom.

B) Hazardous waste transferred by a means other than pumping must be performed such that during transfer of the waste into the container, the cover remains in place and all container openings are maintained in a closed, sealed position except for those openings through which the hazardous waste is added and as provided for in subsection (d) below.

~~c) Each container opening must be maintained in a closed, sealed position (e.g., covered by a gasketed lid) at all times that hazardous waste is in the container except when it is necessary to use the opening to:~~

~~1) Add, remove, inspect, or sample the material in the container;~~

~~2) Inspect, maintain, repair, or replace equipment located inside the container; or~~

~~3) Vent gases or vapors from a cover located over or enclosing an open container to a closed-vent system connected to a control device that is designed and operated in accordance with the requirements of Section 725.988.~~

~~d) One or more safety devices that vent directly to the atmosphere may be used on the container, cover, enclosure, closed-vent system, or control device provided each device meets all of the following conditions:~~

~~1) The safety device is not used for planned or routine venting of organic vapors from the container, cover, enclosure, or closed-vent system connected to a control device; and~~

~~2) The safety device remains in a closed, sealed position at all times except when an unplanned event requires that the device open for the purpose of preventing physical damage or permanent deformation of the container, cover, enclosure, closed-vent system, or control device in accordance with good engineering and safety practices for handling flammable, combustible, explosive, or other hazardous materials. An example of an unplanned event is a sudden power outage.~~

b) General requirements.

1) The owner or operator shall 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^3 (26 gal) and less than or equal to 0.46 m^3 (120 gal), the owner or operator shall 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^3 (120 gal) that is not in light material service, the owner or operator shall 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^3 (120 gal) that is in light material service, the owner or operator shall 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^3 (26 gal) is used for treatment of a hazardous waste by a waste stabilization process, the owner or operator shall 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 U.S. Department of Transportation (DOT) 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 such 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 shall 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 shall 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 shall 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 shall 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 shall 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 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 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 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 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 (i.e., does not meet the conditions for an empty container as specified in 35 Ill. Adm. Code 721.107(b)) within 24 hours after the container is accepted at the facility, the owner or operator shall 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. If a defect is detected, the owner or operator

shall 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 shall 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 shall 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 shall 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 shall maintain at the facility a copy of the procedure used to determine that containers with capacity of 0.46 m^3 (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 U.S. Department of Transportation (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.

C) A container that has been demonstrated within the preceding 12 months to be vapor-tight by using 40 CFR 60, appendix A, Method 27, incorporated by reference in 35 Ill. Adm. Code 720.111, 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 shall 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 shall 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 shall

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 shall 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 shall 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 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 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 shall 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 (i.e., does not meet the conditions for an empty container as specified in 35 Ill. Adm. Code 721.107(b)) within 24 hours after the container arrives at the facility, the owner or operator shall 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. If a defect is detected, the owner or operator shall 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 shall 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 shall 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 shall 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 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) of this Section.

2) The owner or operator shall 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 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111. The enclosure may have permanent or temporary openings to allow worker access; passage of 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 shall perform the verification procedure for the enclosure as specified in Section 5.0 to "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" initially when the enclosure is first installed and, thereafter, annually.

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 shall 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 shall prepare and maintain the records specified in Section 725.990(d).

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 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 Packaging", or 49 CFR 179, "Specifications for Tank Cars", both incorporated by reference in 35 Ill. Adm. Code 720.111.

2) Hazardous waste is managed in the container in accordance with the applicable requirements specified in 49 CFR 107, subpart B, "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.

3) For the purpose of complying with this Subpart, 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 requirements of 49 CFR 178 for the purpose of complying with this Subpart, an owner or operator may comply with the exceptions for combination packagings specified in 49 CFR 173.12(b), incorporated by reference in 35 Ill. Adm. Code 720.111.

g) The owner or operator shall use the procedure specified in Section 725.984(d) for determining a container operates with no detectable organic emissions for the purpose of complying with subsection (d)(1)(B) of this Section.

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) Procedure for determining a container to be vapor-tight using Method 27 of 40 CFR 60, appendix A for the purpose of complying with subsection (d)(1)(C) of this Section.

1) The test must be performed in accordance with Method 27 of 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.

2) A pressure measurement device must be used that has a precision of ±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.

3) If the test results determined by 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 21 Ill. Reg. _____, effective _____)

Section 725.988 Standards: Closed-vent Systems and Control Devices

a) This Section applies to each closed-vent system and control device installed and operated by the owner or operator to control air emissions in accordance with standards of this Subpart.

b) The closed-vent system must meet the following requirements:

1) The closed-vent system must route the gases, vapors, and fumes emitted from the hazardous waste in the waste management unit to a control device that meets the requirements specified in subsection (c) ~~below~~of this Section.

2) The closed-vent system must be designed and operated in accordance with the requirements specified in Section 725.933(j).

3) ~~If~~When the closed-vent system ~~contains one or more~~includes bypass devices that could be used to divert ~~all or a portion of~~ the gas~~es,~~ or vapor~~s, or fumes from entering the control device, the owner or operator shall meet the following requirements:~~stream to the atmosphere before entering the control device, each bypass

device must be equipped with either a flow indicator as specified in subsection (b)(3)(A) of this Section or a seal or locking device as specified in subsection (b)(3)(B) of this Section. For the purpose of complying with this subsection, low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, spring-loaded pressure relief valves, and other fittings used for safety purposes are not considered to be bypass devices.

~~A) For each bypass device except as provided for in subsection (b)(3)(B) below, the owner or operator shall either:~~

~~i) Install, calibrate, maintain, and operate a flow indicator at the inlet to the bypass device that indicates at least once every 15 minutes whether gas, vapor, or fume flow is present in the bypass device; or~~

~~ii) Secure the valve installed at the inlet to the bypass device in the closed position using a car-seal or a lock-and-key type configuration. The owner or operator shall visually inspect the seal or closure mechanism at least once every month to verify that the valve is maintained in the closed position.~~

~~B) Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to the requirements of subsection (b)(3)(A) above.~~

A) If a flow indicator is used to comply with this subsection (b)(3), the indicator must be installed at the inlet to the bypass line used to divert gases and vapors from the closed-vent system to the atmosphere at a point upstream of the control device inlet. For the purposes of this subsection, a flow indicator means a device which indicates the presence of either gas or vapor flow in the bypass line.

B) If a seal or locking device is used to comply with this subsection (b)(3), the device must be placed on the mechanism by which the bypass device position is controlled (e.g., valve handle or damper lever) when the bypass device is in the closed position such that the bypass device cannot be opened without breaking the seal or removing the lock. Examples of such devices include, but

are not limited to, a car-seal or a lock-and-key configuration valve. The owner or operator shall visually inspect the seal or closure mechanism at least once every month to verify that the bypass mechanism is maintained in the closed position.

4) The closed-vent system must be inspected and monitored by the owner or operator in accordance with the procedure specified in Section 725.933(k).

c) The control device must meet the following requirements:

1) The control device must be one of the following devices:

A) A control device designed and operated to reduce the total organic content of the inlet vapor stream vented to the control device by at least 95 ~~percent~~% by weight;

B) An enclosed combustion device designed and operated in accordance with the requirements of Section 725.933(c); or

C) A flare designed and operated in accordance with the requirements of Section 725.933(d).

~~2) The control device must be operating at all times when gases, vapors, or fumes are vented from the waste management unit through the closed-vent system to the control device.~~

2) The owner or operator that elects to use a closed-vent system and control device to comply with the requirements of this Section shall comply with the requirements specified in subsections (c)(2)(A) through (c)(2)(G) of this Section.

A) Periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of subsections (c)(1)(A), (c)(1)(B), or (c)(1)(C) of this Section, as applicable, must not exceed 240 hours per year.

B) The specifications and requirements in subsections (c)(1)(A), (c)(1)(B), and (c)(1)(C) of this Section for control devices do not apply during periods of planned routine maintenance.

C) The specifications and requirements in subsections (c)(1)(A), (c)(1)(B), and (c)(1)(C) of this Section for control devices do not apply during a control device system malfunction.

D) The owner or operator shall demonstrate compliance with the requirements of subsection (c)(2)(A) of this Section (i.e., planned routine maintenance of a control device, during which the control device does not meet the specifications of subsections (c)(1)(A), (c)(1)(B), or (c)(1)(C) of this Section, as applicable, must not exceed 240 hours per year) by recording the information specified in Section 725.990(e)(1)(E).

E) The owner or operator shall correct control device system malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of air pollutants.

F) The owner or operator shall operate the closed-vent system so that gases, vapors, or fumes are not actively vented to the control device during periods of planned maintenance or control device system malfunction (i.e., periods when the control device is not operating or not operating normally), except in cases when it is necessary to vent the gases, vapors, or fumes to avoid an unsafe condition or to implement malfunction corrective actions or planned maintenance actions.

3) The owner or operator using a carbon adsorption system to comply with subsection (c)(1) ~~above~~of this Section shall operate and maintain the control device in accordance with the following requirements:

A) Following the initial startup of the control device, all activated carbon in the control device must be replaced with fresh carbon on a regular basis in accordance with the requirements of Section 725.933(g) or 725.933(h).

B) All carbon removed from the control device must be managed in accordance with the requirements of Section 725.933(~~l~~m).

4) An owner or operator using a control device other than a thermal vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system to comply with subsection (c)(1)

~~above~~of this Section shall operate and maintain the control device in accordance with the requirements of Section 725.933(i).

5) The owner or operator shall demonstrate that a control device achieves the performance requirements of subsection (c)(1) ~~above~~of this Section as follows:

A) An owner or operator shall demonstrate using either a performance test, as specified in subsection (c)(5)(C) ~~below~~of this Section, or a design analysis, as specified in subsection (c)(5)(D) ~~below~~of this Section, the performance of each control device except for the following:

i) A flare;

ii) A boiler or process heater with a design heat input capacity of 44 megawatts or greater;

iii) A boiler or process heater into which the vent stream is introduced with the primary fuel;

iv) A boiler or ~~process heater~~industrial furnace burning hazardous waste for which the owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 and ~~that is~~has designed and ~~operated~~operates in accordance with the requirements of 35 Ill. Adm. Code 726.Subpart H; or

v) A boiler or ~~process heater~~industrial furnace burning hazardous waste for which the owner or operator has ~~certified compliance~~designed and operates in accordance with the interim status requirements of 35 Ill. Adm. Code 726.Subpart H.

B) An owner or operator shall demonstrate the performance of each flare in accordance with the requirements specified in Section 725.933(e).

C) For a performance test conducted to meet the requirements of subsection (c)(5)(A) ~~above~~of this Section, the owner or operator shall use the test methods and procedures specified in Section 725.934(c)(1) through (c)(4).

D) For a design analysis conducted to meet the requirements of subsection (c)(5)(A) ~~above~~of this Section, the design analysis must meet the requirements specified in Section 725.935(b)(4)(C).

E) The owner or operator shall demonstrate that a carbon adsorption system achieves the performance requirements of subsection (c)(1) ~~above~~of this Section based on the total quantity of organics vented to the atmosphere from all carbon adsorption system equipment that is used for organic adsorption, organic desorption or carbon regeneration, organic recovery, and carbon disposal.

6) If the owner or operator and the Agency do not agree on a demonstration of control device performance using a design analysis, then the disagreement must be resolved using the results of a performance test performed by the owner or operator in accordance with the requirements of subsection (c)(5)(C) ~~above~~of this Section. The Agency may choose to have an authorized representative observe the performance test.

7) The control device must be inspected and monitored by the owner or operator in accordance with the procedures specified in Section 725.1033(f)(2) and (k). The readings from each monitoring device required by Section 725.1033(f)(2) must be inspected at least once each operating day to check control device operation. Any necessary corrective measures must be immediately implemented to ensure the control device is operated in compliance with the requirements of this Section.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 725.989 Inspection and Monitoring Requirements

a) ~~This Section applies to an~~The owner or operator ~~using~~shall inspect and monitor air emission control~~s~~ equipment used to comply with this Subpart in accordance with the requirements ~~of~~specified in Sections 725.985 through 725.988.

~~b) Each cover used in accordance with requirements of Sections 725.985 through 725.987 must be visually inspected and monitored for detectable organic emissions by the owner or operator using the procedure specified in subsection (f) below, except as follows:~~

~~1) An owner or operator is exempted from performing the cover inspection and monitoring requirements specified in subsection (f) below for the following tank covers:~~

~~A) A tank internal floating roof that is inspected and monitored in accordance with the requirements of Section 725.991; or~~

~~B) A tank external floating roof that is inspected and monitored in accordance with the requirements of Section 725.991.~~

~~2) If a tank is buried partially or entirely underground, an owner or operator is required to perform the cover inspection and monitoring requirements specified in subsection (f) below only for those portions of the tank cover and those connections to the tank cover or tank body (e.g., fill ports, access hatches, gauge wells, etc.) that extend to or above the ground surface and can be opened to the atmosphere.~~

~~3) An owner or operator is exempted from performing the cover inspection and monitoring requirements specified in subsection (f) below for a container that meets all requirements specified in either Section 725.987(b)(1)(B) or (b)(1)(C).~~

~~4) An owner or operator is exempted from performing the cover inspection and monitoring requirements specified in subsection (f) below for an enclosure used to control air emissions from containers in accordance with the requirements of Section 725.987(b)(2).~~

b) The owner or operator shall develop and implement a written plan and schedule to perform the inspections and monitoring required by subsection (a) of this Section. The owner or operator shall incorporate this plan and schedule into the facility inspection plan required under Section 265.115.

~~c) Each closed-vent system used in accordance with the requirements of Section 725.988 must be inspected and monitored by the owner or operator in accordance with the procedure specified in Section 725.933(j).~~

~~d) Each control device used in accordance with the requirements of Section 725.988 must be inspected and monitored by the owner or operator in accordance with the procedure specified in Section 725.933(f).~~

e) The owner or operator shall develop and implement a written plan and schedule to perform all inspection and monitoring requirements of this section. The owner or operator shall incorporate this plan and schedule into the facility inspection plan required under 35 Ill. Adm. Code 725.115.

f) Inspection and monitoring of a cover in accordance with the requirements of subsection (b) above must be performed as follows:

1) The cover and all cover openings must be initially visually inspected and monitored for detectable organic emissions on or before the date that the tank, surface impoundment, or container using the cover becomes subject to the provisions of this Subpart and at other times as requested by the Agency.

2) At least once every 6 months following the initial visual inspection and monitoring for detectable organic emissions required under subsection (f)(1) above, the owner and operator shall visually inspect and monitor the cover and each cover opening except for following cover openings:

A) A cover opening that has continuously remained in a closed, sealed position for the entire period since the last time the cover opening was visually inspected and monitored for detectable emissions;

B) A cover opening that is designated as unsafe to inspect and monitor in accordance with subsection (f)(5) below;

C) A cover opening on a cover installed and placed in operation before December 6, 1994 that is designated as difficult to inspect and monitor in accordance with subsection (f)(6) below.

3) To visually inspect a cover, the owner or operator shall view the entire cover surface and each cover opening in a closed, sealed position for evidence of any defect that may affect the ability of the cover or cover opening to continue to operate with no detectable organic emissions. A visible hole, gap, tear, or split in the cover surface or a cover opening is defined as a leak that must be repaired in accordance with subsection (f)(7) below.

4) To monitor a cover for detectable organic emissions, the owner or operator shall use the following procedure:

A) Method 21 in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, to test each cover seal and cover connection for detectable organic emissions. Seals on floating membrane covers must be monitored around the entire perimeter of the cover at locations spaced no greater than 3 meters apart.

B) For all cover connections and seals except for the seals around a rotating shaft that passes through a cover opening, if the monitoring instrument indicates detectable organic emissions (i.e., an instrument concentration reading greater than 500 ppmv plus the background level), then a leak is detected. Each detected leak must be repaired in accordance with subsection (f)(7) below.

C) For the seals around a rotating shaft that passes through a cover opening, if the monitoring instrument indicates a concentration reading greater than 10,000 ppmv, then a leak is detected. Each detected leak must be repaired in accordance with subsection (f)(7) below.

5) An owner or operator may designate a cover as an unsafe to inspect and monitor cover if all of the following conditions are met:

A) The owner or operator determines that inspection or monitoring of the cover would expose a worker to dangerous, hazardous, or other unsafe conditions.

B) The owner or operator develops and implements a written plan and schedule to inspect the cover using the procedure specified in subsection (f)(3) above and monitor the cover using the procedure specified in subsection (f)(4) below as frequently as practicable during those times when a worker can safely access the cover.

6) An owner or operator may designate a cover installed and placed in operation before December 6, 1994, as a difficult to inspect and monitor cover if all of the following conditions are met:

A) The owner or operator determines that inspection or monitoring the cover requires elevating a worker to a height greater than 2 meters (6.6 ft) above a support surface; and

B) The owner and operator develops and implements a written plan and schedule to inspect the cover using the procedure specified in subsection (f)(3) above, and to monitor the cover using the procedure specified in subsection (f)(4) above at least once per calendar year.

7) When a leak is detected by either of the methods specified in subsection (f)(3) or (f)(4) above, the owner or operator shall repair the leak in the following manner:

A) The owner or operator shall make a first attempt at repairing the leak no later than 5 calendar days after the leak is detected. Repair of the leak must be completed as soon as practicable, but no later than 15 calendar days after the leak is detected. If repair of the leak cannot be completed within the 15-day period, except as provided in subsection (f)(7)(B) below, then the owner or operator shall not add hazardous waste to the tank, surface impoundment, or container on which the cover is installed until the repair of the leak is completed.

B) Repair of a leak detected on a cover installed on a tank or surface impoundment may be delayed beyond 15 calendar days if the owner or operator determines that both of the following conditions occur:

i) Repair of the leak requires first emptying the contents of the tank or surface impoundment; and

ii) Temporary removal of the tank or surface impoundment from service will result in the unscheduled cessation of production from the process unit or operation of the waste management unit that is generating the hazardous waste managed in the tank or surface impoundment.

C) Repair of a leak determined by the owner or operator to meet the conditions specified in subsection (f)(7)(B) above must be performed at the next time the process, system, or waste management unit that is generating the hazardous waste managed in the tank or surface impoundment stops operation for any reason.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 725.990 Recordkeeping Requirements

a) Each owner or operator of a facility subject to requirements in this Subpart shall record and maintain the ~~following~~ information specified in subsections (b) through (i) of this Section, as applicable~~:~~ to the facility. Except for air emission control equipment design documentation and information required by subsection (i) of this Section, records required by this Section must be maintained in the operating record for a minimum of three years. Air emission control equipment design documentation must be maintained in the operating record until the air emission control equipment is replaced or is otherwise no longer in service. Information required by subsection (i) of this Section must be maintained in the operating record for as long as the tank or container is not using air emission controls specified in Sections 264.984 through 264.987, in accordance with the conditions specified in Section 724.984(d).

~~1) Documentation for each cover installed on a tank in accordance with the requirements of Section 725.985(b)(2) or (b)(3) 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 Section 725.991(c).~~

~~2) Documentation for each floating membrane cover installed on a surface impoundment in accordance with the requirements of Section 725.986(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 Section 725.986(e).~~

~~3) Documentation for each enclosure used to control air emissions from containers in accordance with the requirements of Section 725.987(b)(2)(A) that includes information prepared by the owner or operator or provided by the manufacturer or vendor describing the enclosure design, and certification by the owner or operator that the enclosure meets the specifications listed in Section 725.987(b)(2)(B).~~

~~4) Documentation for each closed-vent system and control device installed in accordance with the requirements of Section 725.988 that includes:~~

A) Certification that is signed and dated by the owner or operator stating that the control device is designed to operate at the performance level documented by a design analysis, as specified in subsection (a)(4)(B) below, or by performance tests, as specified in subsection (a)(4)(C) below, when the tank, surface impoundment, or container is or would be operating at capacity or the highest level reasonably expected to occur.

B) If a design analysis is used, then design documentation as specified in Section 725.935(b)(4). The documentation must include information prepared by the owner or operator or provided by the control device manufacturer or vendor that describes the control device design in accordance with Section 725.935(b)(4)(C) and certification by the owner or operator that the control equipment meets the applicable specifications.

C) If performance tests are used, then a performance test plan as specified in Section 725.935(b)(3) and all test results.

D) Information as required by Sections 725.935(c)(1) and 725.935(c)(2).

5) Records for all Method 27 tests performed by the owner or operator for each container used to meet the requirements of Section 725.987(b)(1)(C).

6) Records for all visual inspections conducted in accordance with the requirements of Section 725.989.

7) Records for all monitoring for detectable organic emissions conducted in accordance with the requirements of Section 725.989.

8) Records of the date of each attempt to repair a leak, repair methods applied, and the date of successful repair.

9) Records for all continuous monitoring conducted in accordance with the requirements of Section 725.989.

10) Records of the management of carbon removed from a carbon adsorption system conducted in accordance with Section 725.988(c)(3)(B).

~~11) Records for all inspections of each cover installed on a tank in accordance with the requirements of Section 725.985(b)(2) or (b)(3) that includes information as listed in Section 725.991(c).~~

b) ~~An~~The owner or operator ~~electing to use~~of a tank using air emission controls ~~for a tank~~ in accordance with the ~~conditions specified in~~requirements of Section 725.985~~(c)~~ shall ~~record~~prepare and maintain records for the tank that include the following information:

~~1) The date and time each waste sample is collected for direct measurement of maximum organic vapor pressure in accordance with Section 725.984(c).~~

1) For each tank using air emission controls in accordance with the requirements of Section 725.985 of this Subpart, the owner or operator shall record:

A) A tank identification number (or other unique identification description as selected by the owner or operator).

B) A record for each inspection required by Section 725.985 that includes the following information:

i) Date inspection was conducted.

ii) For each defect detected during the inspection, the following information: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of Section 725.985, the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.

~~2) The results of each determination for the maximum organic vapor pressure of the waste in the tank performed in accordance with Section 725.984(c).~~

2) In addition to the information required by subsection (b)(1) of this Section, the owner or operator shall record the following information, as applicable to the tank:

A) The owner or operator using a fixed roof to comply with the Tank Level 1 control requirements specified in Section 725.985(c) shall prepare and maintain records for each determination for the maximum organic vapor pressure of the hazardous waste in the tank performed in accordance with the requirements of Section 725.985(c). The records must include the date and time the samples were collected, the analysis method used, and the analysis results.

B) The owner or operator using an internal floating roof to comply with the Tank Level 2 control requirements specified in Section 725.985(e) shall prepare and maintain documentation describing the floating roof design.

C) Owners and operators using an external floating roof to comply with the Tank Level 2 control requirements specified in Section 725.985(f) shall prepare and maintain the following records:

i) Documentation describing the floating roof design and the dimensions of the tank.

ii) Records for each seal gap inspection required by Section 725.985(f)(3) describing the results of the seal gap measurements. The records must include the date that the measurements were performed, the raw data obtained for the measurements, and the calculations of the total gap surface area. In the event that the seal gap measurements do not conform to the specifications in Section 725.985(f)(1), the records must include a description of the repairs that were made, the date the repairs were made, and the date the tank was emptied, if necessary.

D) Each owner or operator using an enclosure to comply with the Tank Level 2 control requirements specified in Section 725.985(i) shall prepare and maintain the following records:

i) Records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in "Procedure T--Criteria for and Verification of a

Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111.

ii) Records required for the closed-vent system and control device in accordance with the requirements of subsection (e) of this Section.

~~3) The records specifying the tank dimensions and design capacity.~~

~~e) An owner or operator electing to use air emission controls for a tank in accordance with the requirements of Section 725.991 shall record the information required by Section 725.991(c).~~

c) The owner or operator of a surface impoundment using air emission controls in accordance with the requirements of Section 725.986 shall prepare and maintain records for the surface impoundment that include the following information:

1) A surface impoundment identification number (or other unique identification description as selected by the owner or operator).

2) Documentation describing the floating membrane cover or cover design, as applicable to the surface impoundment, that includes information prepared by the owner or operator or provided by the cover manufacturer or vendor describing the cover design, and certification by the owner or operator that the cover meets the specifications listed in Section 725.986(c).

3) A record for each inspection required by Section 725.986 that includes the following information:

A) Date inspection was conducted.

B) For each defect detected during the inspection the following information: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of Section 725.986(f), the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.

4) For a surface impoundment equipped with a cover and vented through a closed-vent system to a control device, the owner or

operator shall prepare and maintain the records specified in subsection (e) of this Section.

~~d) An owner or operator electing not to use air emission controls for a particular tank, surface impoundment, or container subject to this Subpart in accordance with the conditions specified in Section 725.983(c) shall record the information used by the owner or operator for each waste determination (e.g., test results, measurements, calculations, and other documentation) in the facility operating log. If analysis results for waste samples are used for the waste determination, then the owner or operator shall record the date, time, and location that each waste sample is collected in accordance with applicable requirements of Section 725.984.~~

d) The owner or operator of containers using Container Level 3 air emission controls in accordance with the requirements of Section 725.987 shall prepare and maintain records that include the following information:

1) Records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111.

2) Records required for the closed-vent system and control device in accordance with the requirements of subsection (e) of this Section.

~~e) An owner or operator electing to comply with requirements in accordance with Section 725.983(c)(2)(E) or (c)(2)(F) shall record the identification number for the incinerator, boiler, or industrial furnace in which the hazardous waste is treated.~~

e) The owner or operator using a closed-vent system and control device in accordance with the requirements of Section 725.988 shall prepare and maintain records that include the following information:

1) Documentation for the closed-vent system and control device that includes:

A) Certification that is signed and dated by the owner or operator stating that the control device is designed to operate at the performance level documented by a design

analysis as specified in subsection (e)(1)(B) of this Section or by performance tests as specified in subsection (e)(1)(C) of this Section when the tank, surface impoundment, or container is or would be operating at capacity or the highest level reasonably expected to occur.

B) If a design analysis is used, then design documentation, as specified in Section 725.1035(b)(4). The documentation must include information prepared by the owner or operator or provided by the control device manufacturer or vendor that describes the control device design in accordance with Section 725.1035(b)(4)(C) and certification by the owner or operator that the control equipment meets the applicable specifications.

C) If performance tests are used, then a performance test plan as specified in Section 265.935(b)(3) and all test results.

D) Information as required by 40 CFR 265.1035(c)(1) and Section 725.935(c)(2), as applicable.

E) An owner or operator shall record, on a semiannual basis, the information specified in subsections (e)(1)(E)(i) and (e)(1)(E)(ii) of this Section for those planned routine maintenance operations that would require the control device not to meet the requirements of Section 725.988(c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable.

i) A description of the planned routine maintenance that is anticipated to be performed for the control device during the next six-month period. This description must include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.

ii) A description of the planned routine maintenance that was performed for the control device during the previous six-month period. This description must include the type of maintenance performed and the total number of hours during those six months that the control device did not meet the requirements of Section 725.988(c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable, due to planned routine maintenance.

F) An owner or operator shall record the information specified in subsections (e)(1)(F)(i) through (e)(1)(F)(iii) of this Section for those unexpected control device system malfunctions that would require the control device not to meet the requirements of Section 725.988(c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable.

i) The occurrence and duration of each malfunction of the control device system.

ii) The duration of each period during a malfunction when gases, vapors, or fumes are vented from the waste management unit through the closed-vent system to the control device while the control device is not properly functioning.

iii) Actions taken during periods of malfunction to restore a malfunctioning control device to its normal or usual manner of operation.

G) Records of the management of carbon removed from a carbon adsorption system conducted in accordance with Section 725.988(c)(3)(B).

f) The owner or operator of a tank, surface impoundment, or container exempted from standards in accordance with the provisions of Section 725.983(c) of this Subpart shall prepare and maintain the following records, as applicable:

1) For tanks, surface impoundments, or containers exempted under the hazardous waste organic concentration conditions specified in Section 725.983 (c)(1) or (c)(2) of this Subpart, the owner or operator shall record the information used for each waste determination (e.g., test results, measurements, calculations, and other documentation) in the facility operating log. If analysis results for waste samples are used for the waste determination, then the owner or operator shall record the date, time, and location that each waste sample is collected in accordance with applicable requirements of Section 725.984 of this Subpart.

2) For tanks, surface impoundments, or containers exempted under the provisions of Section 725.983(c)(2)(vii) or Section 725.983(c)(2)(viii) of this Subpart, the owner or operator shall record the identification number for the incinerator, boiler, or industrial furnace in which the hazardous waste is treated.

~~f~~g) An owner or operator designating a cover as "unsafe to inspect and monitor" pursuant to Section ~~725.989(f)(5)~~725.985(l) ~~or difficult to inspect and monitor pursuant to Section 725.989(f)(6)~~ shall record in a log that is kept in the facility operating record the following information: the identification numbers for waste management units with covers that are designated as "unsafe to inspect and monitor", the explanation for each cover stating why the cover is unsafe to inspect and monitor, and the plan and schedule for inspecting and monitoring each cover.

~~1) A list of identification numbers for tanks with covers that are designated as unsafe to inspect and monitor in accordance with the requirements of Section 725.989(f)(5), an 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.~~

~~2) A list of identification numbers for tanks with covers that are designated as difficult to inspect and monitor in accordance with the requirements of Section 725.989(f)(6), an explanation for each cover stating why the cover is difficult to inspect and monitor, and the plan and schedule for inspecting and monitoring each cover.~~

~~g) All records required by subsections (a) through (f) above, except as required in subsections (a)(1) through (a)(4) above, must be maintained in the operating record for a minimum of 3 years. All records required by subsections (a)(1) through (a)(4) above must be maintained in the operating record until the air emission control equipment is replaced or otherwise no longer in service.~~

h) The owner or operator of a facility that is subject to this Subpart and to the control device standards in 40 CFR 60, Subpart VV, or 40 CFR 61, Subpart V, incorporated by reference in 35 Ill. Adm. Code 270.111, may elect to demonstrate compliance with the applicable Sections of this Subpart by documentation either pursuant to this Subpart, or pursuant to the provisions of 40 CFR 60, Subpart VV or 40 CFR 61, Subpart V, to the extent that the documentation required by 40 CFR 60 or 61 duplicates the documentation required by this Section.

i) For each tank or container not using air emission controls specified in Sections 725.985 through 725.988 in accordance with the conditions specified in Section 725.980(d), the owner or operator shall record and maintain the following information:

1) A list of the individual organic peroxide compounds manufactured at the facility that meet the conditions specified in Section 725.980(d)(1).

2) A description of how the hazardous waste containing the organic peroxide compounds identified pursuant to subsection (i)(1) are managed at the facility in tanks and containers. This description must include the following information:

   A) For the tanks used at the facility to manage this hazardous waste, sufficient information must be provided to describe each tank: a facility identification number for the tank, the purpose and placement of this tank in the management train of this hazardous waste, and the procedures used to ultimately dispose of the hazardous waste managed in the tanks.

   B) For containers used at the facility to manage this hazardous waste, sufficient information must be provided to describe the following for each ~~tank~~container: a facility identification number for the container or group of containers~~,~~; the purpose and placement of this container or group of containers in the management train of this hazardous waste~~,~~; and the procedures used to ultimately dispose of the hazardous waste ~~managed~~ handled in the containers.

3) An explanation of why managing the hazardous waste containing the organic peroxide compounds identified pursuant to subsection (i)(1) ~~above~~of this Section in the tanks or containers identified pursuant to subsection (i)(2) ~~above~~of this Section would create an undue safety hazard if the air emission controls specified in Sections 725.985 through 725.988 were installed and operated on these waste management units. This explanation must include the following information:

   A) For tanks used at the facility to manage this hazardous waste, sufficient information must be provided to explain: how use of the required air emission controls on the tanks would affect the tank design features and facility operating procedures currently used to prevent an undue safety hazard during the management of this hazardous waste in the tanks; and why installation of safety devices on the required air emission controls, as allowed under ~~Section 725.985(g)~~this Subpart, would not address those situations

in which evacuation of tanks equipped with these air emission controls is necessary and consistent with good engineering and safety practices for handling organic peroxides.

B) For containers used at the facility to manage this hazardous waste, sufficient information must be provided to explain: how use of the required air emission controls on the ~~tanks~~containers would affect the container design features and handling procedures currently used to prevent an undue safety hazard during management of this hazardous waste in the containers; and why installation of safety devices on the required air emission controls, as allowed under ~~Section 725.987(d)~~this Subpart, would not address those situations in which evacuation of containers equipped with these air emission controls is necessary and consistent with good engineering and safety practices for handling organic peroxides.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 725.991 Alternative Tank Emission Control Requirements (Repealed)

~~a) This Section applies to owners and operators of tanks electing to comply with Section 725.985(b)(2) or (b)(3).~~

~~1) The owner or operator electing to comply with Section 725.985(b)(2) shall design, install, operate, and maintain a fixed roof and internal floating roof that meet the following requirements.~~

~~A) The fixed roof must comply with the requirements of Section 725.985(d)(1). The internal floating roof must rest or float on the waste surface (but not necessarily in complete contact with it) inside a tank that has a fixed roof. The internal floating roof must be floating on the waste surface at all times, except during initial fill and during those intervals when the tank is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling must be as continuous as possible, based on the amount of waste and the nature of the waste handling operation, and must be accomplished as rapidly as possible.~~

B) Each internal floating roof must be equipped with one of the following closure devices between the wall of the tank and the edge of the internal floating roof:

i) A foam- or liquid-filled seal mounted in contact with the waste (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the waste between the wall of the tank and the floating roof continuously around the circumference of the tank.

ii) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the tank and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

iii) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the tank by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

C) 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 waste surface.

D) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid that is to be maintained in a closed position at all times (i.e., no visible gap), except when the device is in actual use. The cover or lid must be equipped with a gasket. Covers on each access hatch and automatic gauge float well must be bolted, except when they are in use.

E) Automatic bleeder vents must be equipped with a gasket and are to be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports.

F) Rim space vents must be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

G) Each penetration of the internal floating roof for the purpose of sampling must be a sample well. The sample well must have a slit fabric cover that covers at least 90 percent of the opening.

H) 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.

I) Each penetration of the internal floating roof that allows for passage of a ladder must have a gasketed sliding cover.

2) The owner or operator electing to comply with Section 725.985(b)(3) shall design, install, operate, and maintain an external floating roof that meets the following requirements:

A) Each external floating roof must be equipped with a closure device between the wall of the tank and the roof edge. The closure device is to consist of two seals, one above the other. 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 either a mechanical shoe seal or a liquid-mounted seal. Except as provided in subsection (b)(2)(D) below, the seal must completely cover the annular space between the edge of the floating roof and tank wall.

ii) 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 as allowed in subsection (b)(2)(D) below.

B) Except for automatic bleeder vents and rim space vents, each opening in a noncontact external floating roof must provide a projection below the waste surface. Except for

automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof is to be equipped with a gasketed cover, seal, or lid that is to be maintained in a closed position at all times (i.e., no visible gap), except when the device is in actual use. Automatic bleeder vents are to be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are to be set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents are to be gasketed. Each emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

C) The roof must be floating on the waste at all times (i.e., off the roof leg supports), except during initial fill until the roof is lifted off leg supports and when the tank is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports must be continuous and must be accomplished as rapidly as possible.

3) The owner or operator may elect to comply with Section 725.985(b)(2) or (b)(3) using an alternative means of emission limitation for which U.S. EPA has published a Federal Register notice in accordance with the requirements of 40 CFR 60.114b permitting its use as an alternative means for the purpose of compliance with 40 CFR 60.112b.

b) Monitoring and inspection of the control equipment described in subsection (a) above must be conducted as follows:

1) After installation, owners and operators of internal floating roofs shall:

A) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the tank with waste. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric, or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the tank.

B) For tanks equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the waste inside the tank, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the tank from service within 45 days. If a failure that is detected during inspections required in this subsection cannot be repaired within 45 days and if the tank cannot be emptied within 45 days, the Agency may grant the owner or operator a provisional variance pursuant to Section 35(b) of the Act that extends this time for up to 30 days. Such a request for an extension must comply with 35 Ill. Adm. Code 180, and it must document that alternate capacity is unavailable and specify a schedule of actions the owner or operator will take that will assure that the control equipment will be repaired or the tank will be emptied as soon as possible.

C) For tanks equipped with a double-seal system as specified in subsection (a)(1)(A)(ii) above:

i) Visually inspect the tank, as specified in subsection (b)(1)(D) below, at least every 5 years; or

ii) Visually inspect the tank as specified in subsection (b)(1)(B) above.

D) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed. If the internal floating roof has defects; the primary seal has holes, tears, or other openings in the seal or the seal fabric; the secondary seal has holes, tears, or other openings in the seal or the seal fabric; the gaskets no longer close off the waste surfaces from the atmosphere; or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary, so that none of the conditions specified in this subsection exist before refilling the tank with waste. In no event may inspections

conducted in accordance with this provision occur at intervals greater than 10 years, in the case of tanks conducting the annual visual inspection as specified in subsection (b)(1)(B) above, or at intervals no greater than 5 years, in the case of tanks specified in subsection (b)(1)(C) above.

E) Notify the Agency in writing at least 30 days prior to the filling or refilling of each tank for which an inspection is required by subsections (b)(1)(A) and (b)(1)(D) above, to afford the Agency the opportunity to have an observer present. If the inspection required by subsection (b)(1)(D) above is not planned and the owner or operator could not have known about the inspection 30 days in advance of refilling the tank, the owner or operator shall notify the Agency at least 7 days prior to the refilling of the tank. Notification must be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification, including the written documentation, may be made in writing and sent by express mail so that it is received by the Agency at least 7 days prior to the refilling.

2) After installation, the owner or operator of an external floating roof shall:

A) Determine the gap areas and maximum gap widths between the primary seal and the wall of the tank and between the secondary seal and the wall of the tank according to the following frequency:

i) Measurements of gaps between the tank wall and the primary seal (seal gaps) must be performed during the hydrostatic testing of the tank or within 60 days of the initial fill with waste and at least once every five years thereafter.

ii) Measurements of gaps between the tank wall and the secondary seal must be performed within 60 days of the initial fill with waste and at least once per year thereafter.

iii) If any tank ceases to hold waste for a period of one year or more, subsequent introduction of waste into the tank must be considered an initial fill for

the purposes of subsections (b)(2)(A)(i) and (b)(2)(A)(ii) above.

B) Determine the gap widths and areas in the primary and secondary seals individually by the following procedures:

i) Measure seal gaps, if any, at one or more floating roof levels when the roof is floating off the roof leg supports.

ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-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) Determine the total surface area of each gap described in subsection (b)(2)(B)(ii) above 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.

C) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in subsection (b)(2)(D) below.

D) Make necessary repairs or empty the tank within 45 days of identification in any inspection for seals not meeting the following requirements:

i) The accumulated area of gaps between the tank wall and the mechanical shoe or liquid-mounted primary seal must not exceed 212 cm^2 per meter (10.0 in^2 per foot) of tank diameter, and the width of any portion of any gap must not exceed 3.81 cm (1.50 in). One end of the mechanical shoe is to extend into the waste contained in the tank, and the other end is to extend a minimum vertical distance of 61 cm (24.0 in) above the waste surface. There are to be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.

ii) The secondary seal is to meet the following requirements: The secondary seal is to be installed above the primary seal so that it completely covers the space between the roof edge and the tank wall except as provided in subsection (b)(2)(B)(iii) above. The accumulated area of gaps between the tank wall and the secondary seal must not exceed 21.2 cm^2 per meter (1.00 in^2 per foot) of tank diameter, and the width of any portion of any gap must not exceed 1.27 cm (0.500 in). There are to be no holes, tears, or other openings in the seal or seal fabric.

E) If a failure that is detected during inspections required in subsection (b)(2)(A) above cannot be repaired within 45 days and if the tank cannot be emptied within 45 days, the Agency may grant the owner or operator a provisional variance pursuant to Section 35(b) of the Act that extends this time for up to 30 days. Such a request for an extension must comply with 35 Ill. Adm. Code 180, and it must include a demonstration of the unavailability of alternate capacity and a specification of a schedule that will assure that the control equipment will be repaired or the tank will be emptied as soon as possible.

F) Notify the Agency 30 days in advance of any gap measurements required by subsection (b)(2)(A) above, to afford the Agency the opportunity to have an observer present.

G) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this subsection exist before filling or refilling the tank with waste.

ii) For all the inspections required by subsection (b)(2)(G), the owner or operator shall notify the Agency in writing at least 30 days prior to the filling or refilling of each tank to afford the Agency the opportunity to inspect the tank prior to refilling. If the inspection required by this subsection is not planned and the owner or operator could not have known about the inspection 30 days in advance of refilling the tank, the owner or operator shall notify the Agency at least seven days prior to the refilling of the tank. Notification must be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification, including the written documentation, may be made in writing and sent by express mail so that it is received by the Agency at least seven days prior to the refilling.

c) Owners and operators that elect to install and operate the control equipment in subsection (a) above shall include the following information in the operating record in accordance with the requirements of Section 725.990(a)(1) and (a)(11):

1) Internal floating roof.

A) Documentation that describes the control equipment design and certifies that the control equipment meets the specifications of subsections (a)(1) and (b)(1) above.

B) Records of each inspection performed as required by subsections (b)(1)(A) through (b)(1)(D) above. Each record must identify the tank on which the inspection was performed and must contain the date the tank was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

C) If any of the conditions described in subsection (b)(1)(B) above are detected during the annual visual inspection required by subsection (b)(1)(B) above, the records must identify the tank, the nature of the defects, and the date the tank was emptied or the nature of and date the repair was made.

~~D) After each inspection required by subsection (b)(1)(C) above that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in subsection (b)(1)(B) above, the records must identify the tank and the reason it did not meet the specifications of subsection (a)(1) or (b)(1)(C) above and describe each repair made.~~

~~2) External floating roof.~~

~~A) Documentation that describes the control equipment design and certifies that the control equipment meets the specifications of subsections (a)(2) and (b)(2)(B) through (b)(2)(D) above.~~

~~B) Records of each gap measurement performed as required by subsection (b)(2) above. Each record must identify the tank in which the measurement was performed, the date of measurement, the raw data obtained in the measurement, and the calculations described in subsections (b)(2)(B) and (b)(2)(C) above.~~

~~C) Records for each seal gap measurement that detects gaps exceeding the limitations specified by subsection (b)(2)(D) above that identifies the tank, the date the tank was emptied or the repairs made, and the nature of the repair.~~

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 725.Appendix F Compounds With Henry's Law Constant Less Than 0.1 Y/X (at 25° C)

Compound name	CAS No.
Acetaldol	107-89-1
Acetamide	60-35-5
2-Acetylaminofluorene	53-96-3
3-Acetyl-5-hydroxypiperidine	
1-Acetyl-2-thiourea	591-08-2
3-Acetylpiperidine	618-42-8
Acrylamide	79-06-1
Acrylic acid	79-10-7

Adenine	73-24-5
Adipic acid	124-04-9
Adiponitrile	111-69-3
Alachlor	15972-60
Aldicarb	116-06-3
Ametryn	
4-Aminobiphenyl	92-67-1
4-Aminopyridine	504-24-5
Aniline	62-53-3
o-Anisidine	90-04-0
Anthraquinone	84-65-1
Atrazine	1912-24-9
Benzenearsonic acid	98-05-5
Benzenesulfonic acid	98-11-3
Benzidine	92-87-5
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(ghi)perylene	191-24-2
Benzo(k)fluoranthene	207-08-9
Benzoic acid	65-85-0
Benzyl alcohol	100-51-6
gamma-BHC	58-89-9
bis(2-Ethylhexyl)phthalate	117-81-7
Bromochloromethyl acetate	
Bromoxynil	
Butyric acid	107-92-6
Caprolactam (hexahydro-2H-azepin-2-one)	105-60-2
Catechol	120-80-9
Cell wall	
Cellulose (carboxymethylcellulose)	9000-11-7
2-Chloracetophenone	93-76-5
3-Chloro-2,5-diketopyrrolidine	
Chloro-1,2-ethane diol	
p-Chloro-m-cresol	59-50-7
Chloroacetic acid	79-11-8
p-Chloroaniline	106-47-8
p-Chlorobenzophenone	134-85-0
Chlorobenzylate	510-15-6
Chlorhydrin (3-Chloro-1,2-propanediol)	96-24-2
4-Chlorophenol	106-48-9
Chlorophenol polymers	
1-(o-Chlorophenyl)thiourea	5344-82-1
Chrysene	218-01-9
Citric acid	77-92-9
Creosote	8001-58-

Cresol (mixed isomers)	1319-77-3
m-Cresol	108-39-4
o-Cresol	95-48-7
p-Cresol	106-44-5
4-Cumylphenol	27576-86
Cyanide	57-12-5
4-Cyanomethyl benzoate	
Diazinon	
Dibenzo(a,h)anthracene	53-70-3
3,5-Dibromo-4-hydroxybenzonitrile	1689-84-5
Dibutylphthalate	84-74-2
2,6-Dichloro-4-nitroaniline	99-30-9
2,5-Dichloroaniline (N,N-dichloroaniline)	95-82-9
2,6-Dichlorobenzonitrile	1194-65-6
2,5-Dichlorophenol	
3,4-Dichlorotetrahydrofuran	3511-19
Dichlorvos	
Diethanolamine	
N,N-Diethylaniline	91-66-7
Diethyl phosphorothioate	126-75-0
N,N-Diethylpropionamide	15299-99
Diethylene glycol	111-46-6
Diethylene glycol dimethyl ether (dimethyl Carbitol)	
Diethylene glycol monobutyl ether (butyl Carbitol)	112-34-5
Diethylene glycol monoethyl ether acetate (Carbitol acetate)	112-15-2
Diethylene glycol monoethyl ether (Carbitol Cellosolve)	111-90-0
Diethylene glycol monomethyl ether (methyl Carbitol)	111-77-3
N,N-Diethylhydrazine	
Diethyl(4-methylumbelliferyl)thionophosphate	299-45-6
Dimethoate	60-51-5
2,3-Dimethoxystrychnidin-10-one	357-57-3
Dimethylcarbamoyl chloride	
Dimethyl disulfide	624-92-0
Dimethylformamide	68-12-2
Dimethylphthalate	131-11-3
4-Dimethylaminoazobenzene	60-11-7
7,12-Dimethylbenz(a)anthracene	57-97-6
3,3-Dimethylbenzidine	119-93-7
1,1-Dimethylhydrazine	57-14-7
Dimethylsulfone	
Dimethylsulfoxide	67-68-5
4,6-Dinitro-o-cresol	534-52-1
1,2-Diphenylhydrazine	122-66-7
Dipropylene glycol (1,1'-oxydi-2-propanol)	110-98-5
Endrin	72-20-8

Epinephrine	51-43-4
mono-Ethanolamine	141-43-5
Ethyl carbamate (urethane)	5-17-96
Ethyl morpholine (ethyl diethylene oxime)	
Ethylene glycol	107-21-1
Ethylene glycol monobutyl ether (butyl Cellosolve)	111-76-2
Ethylene glycol monoethyl ether (Cellosolve)	110-80-5
Ethylene glycol monoethyl ether acetate (Cellosolve acetate)	111-15-9
Ethylene glycol monomethyl ether (methyl Cellosolve)	109-86-4
Ethylene glycol monophenyl ether (phenyl Cellosolve)	122-99-6
Ethylene glycol monopropyl ether (propyl Cellosolve)	2807-30-9
Ethylene thiourea (2-imidazolidinethione)	9-64-57
3-Ethylphenol	620-17-7
Fluoroacetic acid, sodium salt	62-74-8
Formaldehyde	50-00-0
Formamide	7-51-27
Formic acid	64-18-6
Fumaric acid	110-17-8
Glutaric acid	110-94-1
Glycerin (Glycerol)	56-81-5
Glycinamide	598-41-4
Glyphosate	1071-83-6
Guthion	
Gylcidol	556-52-5
Hexamethylene-1,6-diisocyanate (1,6-diisocyanatohexane)	822-06-0
Hexamethyl phosphoramide	680-31-9
Hexanoic acid	142-62-1
Hydrazine	302-01-2
Hydrocyanic acid	74-90-8
Hydroquinone	123-31-9
Hydroxy-2-propionitrile	109-78-4
Indeno(1,2,3-cd)pyrene	193-39-5
Lead acetate	301-04-2
Lead subacetate (lead acetate, monobasic)	1335-32-6
Leucine	61-90-5
Malathion	121-75-5
Maleic acid	110-16-7
Maleic anhydride	108-31-6
Mesityl oxide	141-79-7
Methane sulfonic acid	75-75-2
Methomyl	16752-77
p-Methoxyphenol	150-76-5
1-Methyl-2-methoxyaziridine	
Methylacrylate	96-33-3
4,4'-Methylene-bis-(2-chloroaniline)	101-14-4

Methylene diphenyl diisocyanate (diphenyl methane diisocyanate)	101-68-8
4,4-Methylenedianiline	101-77-9
Methylene diphenylamine (MDA)	
5-Methylfurfural	620-02-0
Methylhydrazine	60-34-4
Methyliminoacetic acid	
Methylparathion	298-00-0
Methyl sulfuric acid	77-78-1
4-Methylthiophenol	106-45-6
Monomethyl formamide (n-methylformamide)	123-39-7
Nabam	
alpha-Naphthol	90-15-3
beta-Naphthol	135-19-3
alpha-Naphthylamine	134-32-7
beta-Naphthylamine	91-59-8
Neopentyl glycol	126-30-7
Niacinamide	98-92-0
o-Nitroaniline	88-74-4
Nitroglycerin	55-63-0
2-Nitrophenol	88-75-5
4-Nitrophenol	100-02-7
N-Nitroso-n-methylurea	684-93-5
N-Nitrosodimethylamine	62-75-9
Nitrosoguanidine	674-81-7
N-Nitrosomorpholine (4-nitrosomorpholine)	59-89-2
Oxalic acid	144-62-7
Parathion	56-38-2
Pentaerythritol	115-77-5
Phenacetin	62-44-2
Phenol	108-95-2
Phenyl mercuric acetate	62-38-4
Phenylacetic acid	103-82-2
m-Phenylene diamine	108-45-2
o-Phenylene diamine	95-54-5
p-Phenylene diamine	106-50-3
Phorate	298-02-2
Phthalic anhydride	85-44-9
alpha-Picoline (2-methyl pyridine)	109-06-8
1,3-Propane sulfone	1120-71-4
beta-Propiolactone	57-57-8
Proporur (Baygon)	
Propylene glycol	57-55-6
Pyrene	129-00-0
Pyridinium bromide	
Quinoline	91-22-5

Quinone (p-benzoquinone)	106-51-4
Resorcinol	108-46-3
Simazine	122-34-9
Sodium acetate	127-09-3
Sodium formate	141-53-7
Strychnine	57-24-9
Succinic acid	110-15-6
Succinimide	123-56-8
Sulfanilic acid	121-47-1
Terephthalic acid	100-21-0
Tetraethyldithiopyrophosphate	3689-24-5
Tetraethylenepentamine	112-57-2
Thiofanox	39196-18
Thiosemicarbazide	79-19-6
2,4-Toluene diamine	95-80-7
2,4-Toluene diisocyanate	584-84-9
2,6-Toluenediamine	823-40-5
3,4-Toluenediamine	496-72-0
p-Toluic acid	99-94-5
m-Toluidine	108-44-1
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1
Triethanolamine	102-71-6
Triethylene glycol dimethyl ether	
Tripropylene glycol	24800-44-0
Warfarin	81-81-2
3,4-Xylenol (3,4-dimethylphenol)	95-65-8

(Source: Added at 21 Ill. Reg. _____, effective _____)

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

PART 726
STANDARDS FOR THE MANAGEMENT OF SPECIFIC HAZARDOUS WASTE AND SPECIFIC TYPES OF HAZARDOUS WASTE MANAGEMENT FACILITIES

SUBPART C: RECYCLABLE MATERIALS USED IN A MANNER CONSTITUTING DISPOSAL

Section
726.120 Applicability

SUBPART D: HAZARDOUS WASTE BURNED FOR ENERGY RECOVERY

SUBPART E: USED OIL BURNED FOR ENERGY RECOVERY (Repealed)

SUBPART F: RECYCLABLE MATERIALS UTILIZED FOR PRECIOUS METAL RECOVERY

SUBPART G: SPENT LEAD-ACID BATTERIES BEING RECLAIMED

SUBPART H: HAZARDOUS WASTE BURNED IN BOILERS AND INDUSTRIAL FURNACES

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

SOURCE: Adopted in R85-22 at 10 Ill. Reg. 1162, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 14156, effective August 12, 1986; amended in R87-26 at 12 Ill. Reg. 2900, effective January 15, 1988; amended in R89-1 at 13 Ill. Reg. 18606, effective November 13, 1989; amended in R90-2 at 14 Ill. Reg. 14533, effective August 22, 1990; amended in R90-11 at 15 Ill. Reg. 9727, effective June 17, 1991; amended in R91-13 at 16 Ill. Reg. 9858, effective June 9, 1992; amended in R92-10 at 17 Ill. Reg. 5865, effective March 26, 1993; amended in R93-4 at 17 Ill.

Reg. 20904, effective November 22, 1993; amended in R94-7 at 18 Ill. Reg. 12500, effective July 29, 1994; amended in R95-6 at 19 Ill. Reg. 10006, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 11263, effective August 1, 1996; amended in R96-10/R97-3/R97-5 at 21 Ill. Reg. _____, effective _____.

SUBPART F: RECYCLABLE MATERIALS UTILIZED FOR PRECIOUS METAL RECOVERY

Section 726.170 Applicability and requirements

a) The regulations of this subpart apply to recyclable materials that are reclaimed to recover economically significant amounts of gold, silver, platinum, palladium, ir~~ra~~idium, osmium, rhodium, ruthenium, or any combination of these.

b) Persons ~~who~~that generate, transport or store recyclable materials that are regulated under this Subpart are subject to the following requirements:

1) Notification requirements under Section 3010 of the Resource Conservation and Recovery Act;

2) 35 Ill. Adm. Code 722.Subpart B (for generators), 35 Ill. Adm. Code 723.120 and 121 (for transporters), and 35 Ill. Adm. Code 725.171 and 725.172 (for persons ~~who~~that store)~~.~~; and

3) For precious metals exported to or imported from designated OECD member countries for recovery, 35 Ill. Adm. Code 722.Subpart H and 725.112(a)(2). For precious metals exported to or imported from non-OECD countries for recovery, 35 Ill. Adm. Code 722.Subparts E and F.

c) Persons ~~who~~that store recycled materials that are regulated under this Subpart shall keep the following records to document that they are not accumulating these materials speculatively (as defined in 35 Ill. Adm. Code 721.101(c));

1) Records showing the volume of these materials stored at the beginning of the calendar year;

2) The amount of these materials generated or received during the calendar year; and

3) The amount of materials remaining at the end of the calendar year.

d) Recyclable materials that are regulated under this Subpart that are accumulated speculatively (as defined in 35 Ill. Adm. Code 721.101(c)) are subject to all applicable provisions of 35 Ill. Adm. Code 722 through 725, and 35 Ill. Adm. Code 702, 703 and 705.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

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

PART 728
LAND DISPOSAL RESTRICTIONS

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728.103 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
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728.130 Waste Specific Prohibitions -- Solvent Wastes
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728.Table E Standards for Radioactive Mixed Waste
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728.Table G Alternative Treatment Standards Based on HMTR
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728.Table T Treatment Standards for Hazardous Wastes
728.Table U Universal Treatment Standards (UTS)

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

SOURCE: Adopted in R87-5 at 11 Ill. Reg. 19354, effective November 12, 1987; amended in R87-39 at 12 Ill. Reg. 13046, effective July 29, 1988; amended in R89-1 at 13 Ill. Reg. 18403, effective November 13, 1989; amended in R89-9 at 14 Ill. Reg. 6232, effective April 16, 1990; amended in R90-2 at 14 Ill. Reg. 14470, effective August 22, 1990; amended in R90-10 at 14 Ill. Reg. 16508, effective September 25, 1990; amended in R90-11 at 15 Ill. Reg. 9462, effective June 17, 1991; amendment withdrawn at 15 Ill. Reg. 14716, October 11, 1991; amended in R91-13 at 16 Ill. Reg. 9619, effective June 9, 1992; amended in R92-10 at 17 Ill. Reg. 5727, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20692, effective November 22, 1993; amended in R93-16 at 18 Ill. Reg. 6799, effective April 26, 1994; amended in R94-7 at 18 Ill. Reg. 12203, effective July 29, 1994; amended in R94-17 at 18 Ill. Reg. 17563, effective November 23, 1994; amended in R95-6 at 19 Ill. Reg. 9660, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 11100, August 1, 1996; amended in R96-10/R97-3/R97-5 at 21 Ill. Reg. _____, effective _____.

SUBPART A: GENERAL

Section 728.101 Purpose, Scope and Applicability

a) This Part identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances under which an otherwise prohibited waste may continue to be land disposed.

b) Except as specifically provided otherwise in this Part or 35 Ill. Adm. Code 721, the requirements of this Part apply to persons that generate or transport hazardous waste and to owners and operators of hazardous waste treatment, storage, and disposal facilities.

c) Restricted wastes may continue to be land disposed as follows:

1) Where persons have been granted an extension to the effective date of a prohibition under Subpart C or pursuant to Section 728.105, with respect to those wastes covered by the extension;

2) Where persons have been granted an exemption from a prohibition pursuant to a petition under Section 728.106, with respect to those wastes and units covered by the petition;

3) ~~W~~A waste~~s~~ that ~~are~~is hazardous only because ~~they~~it exhibit~~s~~ a ~~hazardous~~ characteristic of hazardous waste and that ~~are~~is otherwise prohibited ~~from land disposal~~ under this Part ~~are~~is not prohibited ~~from land disposal~~ if the waste~~s~~:

A) ~~Are~~ Is disposed into a nonhazardous or hazardous waste injection well, as defined in 35 Ill. Adm. Code 704.106(a); and

B) Doe~~s~~ not exhibit any prohibited characteristic of hazardous waste identified in 35 Ill. Adm. Code 721.Subpart C at the point of injection~~; and~~.

~~C) If, at the point of generation, the injected wastes include D001 High TOC subcategory wastes or D012-D017 pesticide wastes that are prohibited under Section 728.117(c), those wastes have been treated to meet the treatment standards of Section 728.140 prior to injection.~~

4) A waste that is hazardous only because it exhibits a characteristic of hazardous waste and which is otherwise prohibited under this Part is not prohibited if the waste meets any of the following criteria, unless the waste is subject to a specified method of treatment other than DEACT in Section 728.140 or is D003 reactive cyanide:

A) The waste is managed in a treatment system which subsequently discharges to waters of the U.S. pursuant to a permit issued under 35 Ill. Adm. Code 309; or

B) The waste is treated for purposes of the pretreatment requirements of 35 Ill. Adm. Code 307 and 310; or

C) The waste is managed in a zero discharge system engaged in Clean Water Act-equivalent treatment, as defined in Section 728.137(a); and

D) The waste no longer exhibits a prohibited characteristic of hazardous waste at the point of land disposal (i.e., placement in a surface impoundment).

d) This Part does not affect the availability of a waiver under Section 121(d)(4) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (42 U.S.C. §§ 9601 et seq.).

e) The following hazardous wastes are not subject to any provision of this Part:

1) Wastes generated by small quantity generators of less than 100 kg of non-acute hazardous waste or less than 1 kg of acute hazardous waste per month, as defined in 35 Ill. Adm. Code 721.105;

2) Waste pesticides that a farmer disposes of pursuant to 35 Ill. Adm. Code 722.170;

3) Wastes identified or listed as hazardous after November 8, 1984, for which USEPA has not promulgated land disposal prohibitions or treatment standards; or

4) De minimis losses of waste that exhibits a characteristic of hazardous waste to wastewaters ~~treatment systems of commercial chemical product or chemical intermediates that are ignitable (D001) or corrosive (D002) or that are organic constituents that exhibit the characteristic of toxicity (D012-D043) and that contain underlying hazardous constituents, as defined in Section 728.102 of this Part,~~ are not considered to be prohibited wastes and are defined as follows:~~. "De minimis" is defined as l~~

A) Losses from normal material handling operations (e.g., spills from the unloading or transfer of materials from bins or other containers or leaks from pipes, valves, or other devices used to transfer materials); minor leaks of process equipment, storage tanks, or containers; leaks from well-maintained pump packings and seals; sample purgings; relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; and rinsate from empty containers or from containers that are rendered empty by that rinsing; and laboratory waste that does not exceed one per cent of the total flow of wastewater into the facility's headworks on an annual basis, or with a combined annualized average concentration not exceeding one part per million (ppm) in the headworks of the facility's wastewater treatment or pretreatment facility; or

B) Decharacterized waste that is injected into Class I nonhazardous wells in which the decharacterized waste's combined volume is less than one per cent of the total flow at the wellhead on an annualized basis and no greater than 10,000 gallons per day, and in which any underlying hazardous constituents in the characteristic waste are present at the point of generation at levels less than 10 times the treatment standards found at Section 728.148.

5) Land disposal prohibitions for hazardous characteristic wastes do not apply to laboratory wastes displaying the characteristic of ignitability (D001), corrosivity (D002), or organic toxicity (D012 through D043) that are mixed with other plant wastewaters at facilities whose ultimate discharge is subject to regulation under the CWA (including wastewaters at facilities that have eliminated the discharge of wastewater), provided that the annualized flow of laboratory wastewater into the facility's headwork does not exceed one percent or that the laboratory wastes' combined annualized average concentration does not exceed one part per million in the facility's headworks.

f) A universal waste handler or universal waste transporter (as defined in 35 Ill. Adm. Code 720.110) is exempt from Sections 728.107 and 268.150 for the hazardous wastes listed below. Such a handler or transporter is subject to regulation under 35 Ill. Adm. Code 733.

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

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

3) Thermostats, as described in 35 Ill. Adm. Code 733.104.

g) This Part is cumulative with the land disposal restrictions of 35 Ill. Adm. Code 729. The Environmental Protection Agency (Agency) shall not issue a wastestream authorization pursuant to 35 Ill. Adm. Code 709 or Sections 22.6 or 39(h) of the Environmental Protection Act [415 ILCS 5/22.6 or 39(h)] unless the waste meets the requirements of this Part as well as 35 Ill. Adm. Code 729.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 728.102 Definitions

When used in this Part, the following terms have the meanings given below. All other terms have the meanings given under 35 Ill. Adm. Code 702.110, ~~720.102~~720.110, or ~~721.103~~721.102 through 721.104.

"Agency" means the Illinois Environmental Protection Agency.

"Board" means the Illinois Pollution Control Board.

"CERCLA" means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq.)

"Debris" means solid material exceeding a 60 mm particle size that is intended for disposal and that is: a manufactured object; plant or animal matter; or natural geologic material. However, the following materials are not debris: any material for which a specific treatment standard is provided in ~~728.~~Subpart D of this Part, namely lead acid batteries, cadmium batteries, and radioactive lead solids; process residuals, such as smelter slag and residues from the treatment of waste, wastewater, sludges, or air emission residues; and intact containers of hazardous waste that are not ruptured and that retain at least 75% of their original volume. A mixture of debris that has not been treated to the standards provided by Section 728.145 of this Part and other material is subject to regulation as debris if the mixture is comprised primarily of debris, by volume, based on visual inspection.

"End-of-pipe" refers to the point where effluent is discharged to the environment.

"Halogenated organic compounds" or "HOCs" means those compounds having a carbon-halogen bond that are listed under Section 728.Appendix C.

"Hazardous constituent or constituents" means those constituents listed in 35 Ill. Adm. Code 721.Appendix H.

"Hazardous debris" means debris that contains a hazardous waste listed in 35 Ill. Adm. Code 721.Subpart D or that exhibits a characteristic of hazardous waste identified in 35 Ill. Adm. Code 721.Subpart C.

"Inorganic metal-bearing waste" is one for which USEPA has established treatment standards for metal hazardous constituents that does not otherwise contain significant organic or cyanide content, as described in Section 728.103(b)(1), and which is specifically listed in Section 728.Appendix K.

"Inorganic ~~S~~solid ~~D~~debris" are nonfriable inorganic solids that are incapable of passing through a 9.5 mm standard sieve and that require cutting or crushing and grinding in mechanical sizing equipment prior to stabilization, limited to the following inorganic or metal materials:

Metal slags (either dross or scoria).

Glassified slag.

Glass.

Concrete (excluding cementitious or pozzolanic stabilized hazardous wastes).

Masonry and refractory bricks.

Metal cans, containers, drums, or tanks.

Metal nuts, bolts, pipes, pumps, valves, appliances, or industrial equipment.

Scrap metal, as defined in 35 Ill. Adm. Code 721.101(c)(6).

"Land disposal" means placement in or on the land, except in a corrective action management unit, and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, underground mine, or cave or placement in a concrete vault or bunker intended for disposal purposes.

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

"Polychlorinated biphenyls" or "PCBs" are halogenated organic compounds defined in accordance with 40 CFR 761.3, incorporated by reference in 35 Ill. Adm. Code 720.111.

"ppm" means parts per million.

"RCRA corrective action" means corrective action taken under 35 Ill. Adm. Code 724.200 or 725.193, 40 CFR 264.100 or 265.93 (19~~94~~96), or similar regulations in other States with RCRA programs authorized by U~~.~~S~~.~~ EPA pursuant to 40 CFR 271 (19~~94~~96).

"Stormwater impoundments" are surface impoundments that receive wet weather flow and which receive process waste only during wet weather events.

"Underlying hazardous constituent" means any ~~regulated~~ constituent listed in Section 728.Table U, "Universal Treatment Standards (UTS)", except fluoride, vanadium, and zinc, that can reasonably be expected to be present~~,~~ at the point of generation of the hazardous waste~~,~~ at a concentration above the constituent-specific UTS treatment standard.

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

"Wastewaters" are wastes that contain less than 1% by weight total organic carbon (TOC) and less than 1% by weight total suspended solids (TSS)~~, with the following exceptions:~~.

~~F001, F002, F003, F004, and F005 solvent-water mixtures that contain less than 1% by weight TOC or less than 1% by weight total F001, F002, F003, F004, and F005 solvent constituents listed in Table A.~~

~~K011, K013, and K014 wastewaters (as generated) that contain less than 5% by weight TOC and less than 1% by weight TSS.~~

~~K103 and K104 wastewaters that contain less than 4% by weight TOC and less than 1% by weight TSS.~~

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 728.103 Dilution Prohibited as a Substitute for Treatment

a) Except as provided in subsection (b) ~~below~~of this Section, no generator, transporter, handler, or owner or operator of a treatment, storage, or disposal facility shall in any way dilute a restricted waste or the residual from treatment of a restricted waste as a substitute for adequate treatment to achieve compliance with Subpart D of this Part, to circumvent the effective date of a prohibition in Subpart C of this Part, to otherwise avoid a prohibition in Subpart C of this Part, or to circumvent a land disposal restriction imposed by RCRA section 3004.

b) Dilution of waste~~s~~ that ~~are~~is hazardous only because ~~they~~it exhibits a characteristic of hazardous waste in a treatment system ~~which~~that treats wastes subsequently discharged to a water of the State pursuant to an NPDES permit issued under 35 Ill. Adm. Code 309, that treats wastes in

a CWA-equivalent treatment system, ~~or which~~that treats wastes for purposes of pretreatment requirements under 35 Ill. Adm. Code 310 is not impermissible dilution for purposes of this Section unless a method other than DEACT has been specified in Section 728.140 as the treatment standard ~~in Section 728.142,~~ or unless the waste is a D003 reactive cyanide wastewater or nonwastewater.

c) Combustion of waste designated by any of the USEPA hazardous waste codes listed in Section 728.Appendix J is prohibited, unless the waste can be demonstrated to comply with one or more of the following criteria at the point of generation or after any bona fide treatment, such as cyanide destruction prior to combustion (unless otherwise specifically prohibited from combustion):

1) The waste contains hazardous organic constituents or cyanide at levels exceeding the constituent-specific treatment standard found in Section 728.148;

2) The waste consists of organic, debris-like materials (e.g., wood, paper, plastic, or cloth) contaminated with an inorganic metal-bearing hazardous waste;

3) The waste has reasonable heating value, such as greater than or equal to 5000 BTU per pound, at the point of generation;

4) The waste is co-generated with wastes for which combustion is a required method of treatment;

5) The waste is subject to any federal or state requirements necessitating reduction of organics (including biological agents); or

6) The waste contains greater than one percent Total Organic Carbon (TOC).

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 728.107 Waste Analysis and Recordkeeping

a) Except as specified in Section 728.132, where a generator's waste is listed in 35 Ill. Adm. Code 721.Subpart D or if the waste exhibits one or more of the characteristics set out at 35 Ill. Adm. Code 721.Subpart C, the generator shall test its waste, or test an extract using the Toxicity Characteristic Leaching Procedure, Method 1311, in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", U~~.~~S~~.~~ EPA

Publication SW-846, as incorporated by reference in 35 Ill. Adm. Code 720.111, or use knowledge of the waste to determine if the waste is restricted from land disposal under this Part. If the generator determines that its waste displays the characteristic of ignitability (D001) (and is not in the High TOC Ignitable Liquids Subcategory or is not treated by CMBST or RORGS of Section 728.Table C ~~of this Part~~), or the waste displays the characteristic of corrosivity (D002), reactivity (D003), or organic toxicity (D012 through D043), and the waste is prohibited under Sections 728.137, ~~or the waste displays the characteristic of organic toxicity (D012-D043) and is prohibited under~~ Section 728.138, and 728.139, the generator shall determine what underlying hazardous constituents (as defined in Section 728.102), are reasonably expected to be present in the D001, D002, D003, or D012 through D043 waste.

1) If a generator determines that it is managing a restricted waste under this Part and the waste does not meet the applicable treatment standards set forth in ~~728.~~Subpart D of this Part or exceeds the applicable prohibition levels set forth in Section 728.132 or 728.139, the generator shall ~~notify the~~send a one-time written notice to each treatment or storage facility ~~in writing~~ with ~~each~~the initial shipment of waste. No further notification is necessary until such time that the waste or facility change, in which case a new notification must be sent and a copy placed in the generator's file. The notice must include the following information:

   A) U~~.~~S~~.~~ EPA hazardous waste number;

   B) The waste constituents that the treater will monitor, if monitoring will not include all regulated constituents, for wastes F001 through F005, F039, D001, D002, D003, and D012 through D043~~, and wastes prohibited pursuant to Section 728.132 or Section 3004(d) of the Resource Conservation and Recovery Act, referenced in Section 728.139~~. The generator must also include whether the waste is a nonwastewater or wastewater (as defined in Section 728.102 (d) and (f)) and indicate the subcategory of the waste (such as "D003 reactive cyanide") if applicable;

   C) The manifest number associated with the shipment of waste;

   D) For hazardous debris, the contaminants subject to treatment, as provided by Section 728.145(b), and the

following statement: "This hazardous debris is subject to the alternative treatment standards of 35 Ill. Adm. Code 728.145"; and

E) Waste analysis data, where available~~; and~~.

~~F) The date on which the waste is subject to the prohibitions.~~

2) If a generator determines that it is managing a restricted waste under this Part and determines that the waste can be land disposed without further treatment, with ~~each~~the initial shipment of waste the generator shall submit a one-time written notice and a certification to ~~the~~each treatment, storage, or land disposal facility stating that the waste meets the applicable treatment standards set forth in ~~728.~~Subpart D of this Part and setting forth the applicable prohibition levels set forth in Section 728.132 or RCRA Section 3004(d), referenced in Section 728.139. A generator of hazardous debris that is excluded from the definition of hazardous waste under 35 Ill. Adm. Code 721.103(e)(2), 35 Ill. Adm. Code 728.103(f)(2), or 35 Ill. Adm. Code 720.122 (i.e. debris that is delisted), however, is not subject to these notification and ~~certififcation~~ certification requirements. If the waste changes, the generator shall send a new notice and certification to the receiving facility, and place a copy in its files.

A) The notice must include the following information:

i) U~~.~~S~~.~~ EPA hazardous waste number;

ii) The waste constituents that the treater will monitor, if monitoring will not include all regulated constituents, for wastes F001 through F005, F039, D001, D002, D003, and D012 through D043~~, and wastes prohibited pursuant to Section 728.132 or Section 3004(d) of the Resource Conservation and Recovery Act, referenced in Section 728.139~~. The generator must also include whether the waste is a wastewater or nonwastewater (as defined in Section 728.102 (d) and (f))~~,~~ and indicate the subcategory of the waste (such as "D003~~,~~ reactive cyanide"), if applicable;

iii) The manifest number associated with the shipment of waste; and

iv) Waste analysis data, where available.

B) The certification must be signed by an authorized representative and must state the following:

I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 35 Ill. Adm. Code ~~728.~~Subpart D of this Part and all applicable prohibitions set forth in 35 Ill. Adm. Code 728.132, 728.139, or Section 3004(d) of the Resource Conservation and Recovery Act. I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

3) If a generator's waste is subject to an exemption from a prohibition on the type of land disposal method utilized for the waste (such as, but not limited to, a case-by-case extension under Section 728.105, an exemption under Section 728.106, an extension under Section 728.101(c)(3), or a nationwide capacity variance under 40 CFR 268.Subpart C (19~~94~~96)), the generator shall submit a one-time written notice with ~~each~~the initial shipment of the waste to ~~the~~each facility receiving the generator's waste stating that the waste is not prohibited from land disposal. If the waste changes, the generator shall send a new notice and certification to the receiving facility, and place a copy in its files. The notice must include the following information:

A) U~~.~~S~~.~~ EPA hazardous waste number;

B) The waste constituents that the treater will monitor, if monitoring will not include all regulated constituents, for wastes F001 through F005, F039, D001, D002, D003, and D012 through D043. The generator must also include whether the waste is a nonwastewater or wastewater (as defined in Section 728.102 (d) and (f))~~,~~ and indicate the subcategory of the waste (such as "D003 reactive cyanide")~~,~~ if applicable;

C) The manifest number associated with the shipment of waste;

D) Waste analysis data, where available;

E) For hazardous debris, when using the alternative treatment technologies provided by Section 728.145:

i) The contaminants subject to treatment, as provided by Section 728.145(b);

ii) An indication that these contaminants are being treated to comply with Section 728.145;

F) For hazardous debris when using the treatment standards for the contaminating waste(s) in Section 728.140: the requirements described in subsections (a)(3)(A) through (a)(3)(D) ~~above~~ and ~~subsection~~ (a)(3)(G) ~~below~~of this Section; and,

G) The date on which the waste is subject to the prohibitions.

4) If a generator is managing a prohibited waste in tanks, containers, or containment buildings regulated under 35 Ill. Adm. Code 722.134 and is treating such waste in tanks, containers, or containment buildings to meet applicable treatment standards under ~~728.~~Subpart D of this Part, the generator shall develop and follow a written waste analysis plan that describes the procedures the generator will carry out to comply with the treatment standards. (A generator treating hazardous debris under the alternative treatment standards of Section 728.Table F, however, is not subject to these waste analysis requirements.) The plan must be kept on-site in the generator's records, and the following requirements must be met:

A) The waste analysis plan must be based on a detailed chemical and physical analysis of a representative sample of the prohibited wastes being treated, and it must contain all information necessary to treat the wastes in accordance with the requirements of this Part, including the selected testing frequency.

B) Such plan must be filed with the Agency a minimum of 30 days prior to the treatment activity, with delivery verified.

C) Wastes shipped off-site pursuant to this subsection must comply with the notification requirements of Section 728.107(a)(2).

5) If a generator determines whether the waste is restricted based solely on the generator's knowledge of the waste, the generator shall retain all supporting data used to make this determination on-site in the generator's files. If a generator determines whether the waste is restricted based on testing the waste or an extract developed using the test method described in Section 728.Appendix A, the generator shall retain all waste analysis data on site in its files.

6) If a generator determines, subsequent to the time of generation, that it is managing a restricted waste that is excluded from the definition of hazardous or solid waste or exempt from regulation as a RCRA hazardous waste under 35 Ill. Adm. Code 721.102 through 721.106, the generator shall place, in the facility's file, a one-time notice stating such generation, the subsequent exclusion from the definition of hazardous or solid waste or exemption from regulation as a RCRA hazardous waste, and the disposition of the waste.

7) A generator shall retain on-site a copy of all notices, certifications, demonstrations, waste analysis data, and other documentation produced pursuant to this Section for at least five years from the date that the waste that is the subject of such documentation was last sent to on-site or off-site treatment, storage, or disposal. The five year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity, or as requested by the Agency. The requirements of this subsection apply to solid wastes even when the hazardous characteristic is removed prior to disposal, when the waste is excluded from the definition of hazardous or solid waste under 35 Ill. Adm. Code 721.102 through 721.106, or when the waste is exempted from regulation as a RCRA hazardous waste subsequent to the point of generation.

8) If a generator is managing a lab pack that contains wastes identified in Section 728.Appendix D and wishes to use the alternative treatment standard under Section 728.142(c), with each shipment of waste the generator shall submit a notice to the treatment facility in accordance with subsection (a)(1) ~~above~~of this Section, except that underlying hazardous constituents need

not be determined. The generator shall also comply with the requirements in subsections (a)(5) and (a)(6) ~~above~~of this Section and shall submit the following certification, which must be signed by an authorized representative:

> I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack does not contain any of the wastes identified in 35 Ill. Adm. Code 728.Appendix D. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.

9) This subsection corresponds with 40 CFR 268.7(a)(9), marked "reserved" by U~~.~~S~~.~~ EPA at 59 Fed. Reg. 48045 (Sept. 19, 1994). This statement maintains structural consistency with federal regulations.

10) Small quantity generators with tolling agreements pursuant to 35 Ill. Adm. Code 722.120(e) shall comply with the applicable notification and certification requirements of subsection (a) ~~above~~of this Section for the initial shipment of the waste subject to the agreement. Such generators shall retain on-site a copy of the notification and certification, together with the tolling agreement, for at least three years after termination or expiration of the agreement. The three-year record retention period is automatically extended following notification pursuant to Section 31(d) of the Environmental Protection Act until either any subsequent enforcement action is resolved or until the Agency notifies the generator documents need not be retained.

b) Treatment facilities shall test their wastes according to the frequency specified in their waste analysis plans, as required by 35 Ill. Adm. Code 724.113 or 725.113. Such testing must be performed as provided in subsections (b)(1), (b)(2), and (b)(3) ~~below~~of this Section.

1) For wastes with treatment standards expressed as concentrations in the waste extract (Section 728.141), the owner or operator of the treatment facility shall test the treatment residues or an extract of such residues developed using the test method described in Section 728.Appendix A to assure that the treatment residues or extract meet the applicable treatment standards.

2) For wastes prohibited under Section 728.132 or 728.139 that are not subject to any treatment standards under ~~728.~~Subpart D of

this Part, the owner or operator of the treatment facility shall test the treatment residues according to the generator testing requirements specified in Section 728.132 to assure that the treatment residues comply with the applicable prohibitions.

3) For wastes with treatment standards expressed as concentrations in the waste (Section 728.143), the owner or operator of the treatment facility shall test the treatment residues (not an extract of such residues) to assure that the treatment residues meet the applicable treatment standards.

4) A notice must be sent with ~~each~~the initial waste shipment to ~~the~~each land disposal facility that includes the following information, except that debris excluded from the definition of the hazardous waste under 35 Ill. Adm. Code 721.103(e) (i.e., debris treated by an extraction or destruction technology provided by Section 728.Table F, and debris that is delisted) is subject to the notifi~~f~~cation and certification requirements of subsection (d) ~~below~~of this Section rather than these notification requirements~~:~~. No further notification is necessary until such time that the waste or receiving facility change, in which case a new notice must be sent and a copy placed in the treatment facility's file.

A) U~~.~~S~~.~~ EPA hazardous waste number;

B) The waste constituents ~~to be monitored~~that the treater will monitor, if monitoring will not include all regulated constituents, for wastes F001 through F005, F039, D001, D002, D003, and D012 through D043~~, and wastes prohibited pursuant to Section 728.132 or Section 3004(d) of the Resource Conservation and Recovery Act, referenced in Section 728.139~~. The generator must also include whether the waste is a nonwastewater or wastewater (as defined in Section 728.102 (d) and (f))~~,~~ and indicate the subcategory of the waste (such as "D003 reactive cyanide~~s~~")~~,~~ if applicable;

C) The manifest number associated with the shipment of waste; and

D) Waste analysis data, where available.

5) The treatment facility owner or operator shall submit a certification with each shipment of waste or treatment residue of a restricted waste to the land disposal facility stating that the

waste or treatment residue has been treated in compliance with the treatment standards specified in ~~728.~~Subpart D of this Part and the applicable prohibitions set forth in Section 728.132 or 728.139. Debris excluded from the definition of hazardous waste under 35 Ill. Adm. Code 721.103(e) (i.e., debris treated by an extraction or destruction technology provided by Section 728.Table F, and debris that is delisted), however, is subject to the notifi~~f~~cation and certification requirements of subsection (d) ~~below~~of this Section rather than the certification requirements of this subsection.

A) For wastes with treatment standards expressed as concentrations in the waste extract or in the waste (Sections 728.141 or 728.143), or for wastes prohibited under Section 728.132 or 728.139 that are not subject to any treatment standards under ~~728.~~Subpart D of this Part, the certification must be signed by an authorized representative and must state the following:

> I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly, so as to comply with the performance levels specified in 35 Ill. Adm. Code ~~728.~~Subpart D of this Part and all applicable prohibitions set forth in 35 Ill. Adm. Code 728.132 or 728.139 or Section 3004(d) of the Resource Conservation and Recovery Act without impermissible dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

B) For wastes with treatment standards expressed as technologies (Section 728.142), the certification must be signed by an authorized representative and must state the following:

> I certify under penalty of law that the waste has been treated in accordance with the requirements of 35 Ill. Adm. Code 728.142. I am aware that

there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

C) For wastes with treatment standards expressed as concentrations in the waste pursuant to Section 728.143, if compliance with the treatment standards in ~~728.~~Subpart D of this Part is based in part or in whole on the analytical detection limit alternative specified in Section 728.143(c), the certification also must state the following:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by incineration in units operated in accordance with 35 Ill. Adm. Code 724.Subpart O or 35 Ill. Adm. Code 725.Subpart O, or by combustion in fuel substitution units operating in accordance with applicable technical requirements, and I have been unable to detect the nonwastewater organic constituents despite having used best good faith efforts to analyze for such constituents. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

D) For characteristic wastes D001, D002, D003, and D012 through D043 that are subject to the treatment standards in Section 728.140 (other than those expressed as a required method of treatment), that are reasonably expected to contain underlying hazardous constituents (as defined in Section 728.102(i)), that are treated on-site to remove the hazardous characteristic, and that are then sent off-site for treatment of underlying hazardous constituents, the certification must state the following:

I certify under penalty of law that the waste has been treated in accordance with the requirements of 35 Ill. Adm. Code 728.140 to remove the hazardous characteristic. This decharacterized

waste contains underlying hazardous constituents that require further treatment to meet universal treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

E) For characteristic wastes D001, D002, D003, and D012 through D043 that contain underlying hazardous constituents, as defined in Section 728.102(i), and which are treated on-site to remove the hazardous characteristic and to treat underlying hazardous constituents to levels set forth in the Sections 728.148 and 728.Table U Universal Treatment Standards, the certification must state the following:

I certify under penalty of law that the waste has been treated in accordance with the requirements of 35 Ill. Adm. Code 728.140 to remove the hazardous characteristic, and that underlying hazardous constituents, as defined in Section 728.102, have been treated on-site to meet the Sections 728.148 and 728.Table U Universal Treatment Standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

6) If the waste or treatment residue will be further managed at a different treatment or storage facility, the treatment, storage, or disposal facility sending the waste or treatment residue off-site must comply with the notice and certification requirements applicable to generators under this Section.

7) Where the wastes are recyclable materials used in a manner constituting disposal subject to the provisions of 35 Ill. Adm. Code 726.120(b), regarding treatment standards and prohibition levels, the owner or operator of a treatment facility (i.e. the recycler) is not required to notify the receiving facility pursuant to subsection (b)(4) ~~above~~of this Section. With each shipment of such wastes the owner or operator of the recycling facility shall submit a certification described in subsection (b)(5) ~~above~~of this Section and a notice that includes the information listed in subsection (b)(4) ~~above~~of this Section (except the manifest number) to the Agency. The recycling facility also shall keep

records of the name and location of each entity receiving the hazardous waste-derived product.

c) Except where the owner or operator is disposing of any waste that is a recyclable material used in a manner constituting disposal pursuant to 35 Ill. Adm. Code 726.120(b), the owner or operator of any land disposal facility disposing any waste subject to restrictions under this Part shall:

1) Have copies of the notice and certification specified in subsection (a) or (b) ~~above~~of this Section and the certification specified in Section 728.108, if applicable.

2) Test the waste, or an extract of the waste or treatment residue developed using the test method described in Section 728.Appendix A or using any methods required by generators under Section 728.132, to assure that the waste or treatment residue is in compliance with the applicable treatment standards set forth in ~~728.~~Subpart D of this Part and all applicable prohibitions set forth in Sections 728.132 or 728.139. Such testing must be performed according to the frequency specified in the facility's waste analysis plan as required by 35 Ill. Adm. Code 724.113 or 725.113.

3) Where the owner or operator is disposing of any waste that is subject to the prohibitions under Section 728.133(f) but not subject to the prohibitions set forth in Section 728.132, the owner or operator shall ensure that such waste is the subject of a certification according to the requirements of Section 728.108 prior to disposal in a landfill or surface impoundment unit, and that such disposal is in accordance with the requirements of Section 728.105(h)(2). The same requirement applies to any waste that is subject to the prohibitions under Section 728.133(f) and also is subject to the statutory prohibitions in the codified prohibitions in Section 728.139 or Section 728.132.

4) Where the owner or operator is disposing of any waste that is a recyclable material used in a manner constituting disposal subject to the provisions of 35 Ill. Adm. Code 726.120(b), the owner or operator is not subject to subsections (c)(1) through (c)(3) ~~above~~of this Section with respect to such waste.

d) A generator or treater that first claims that hazardous debris is excluded from the definition of hazardous waste under 35 Ill. Adm. Code 721.103(e) (i.e., debris treated by an extraction or destruction technology provided by Section 728.Table F, and debris that has been

delisted) is subject to the following notification and certification requirements:

1) A one-time notification must be submitted to the Agency including the following information:

   A) The name and address of the RCRA Subtitle D (municipal solid waste landfill) facility receiving the treated debris;

   B) A description of the hazardous debris as initially generated, including the applicable U.S. EPA hazardous waste numbers; and

   C) For debris excluded under 35 Ill. Adm. Code ~~728.103(f)(2)~~721.103(e)(1), the technology from Section 728.Table F used to treat the debris.

2) The notification must be updated if the debris is shipped to a different facility and, for debris excluded 35 Ill. Adm. Code 721.2(d)(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 ~~728.103(f)(2)~~721.103(e)(1), the owner or operator of the treatment facility shall document and certify compliance with the treatment standards of Section 728.Table F, as follows:

   A) Records must be kept of all inspections, evaluations, and analyses of treated debris that are made to determine compliance with the treatment standards;

   B) Records must be kept of any data or information the treater obtains during treatment of the debris that identifies key operating parameters of the treatment unit; and

   C) For each shipment of treated debris, a certification of compliance with the treatment standards must be signed by an authorized representative and placed in the facility's files. The certification must state the following: "I certify under penalty of law that the debris has been treated in accordance with the requirements of 35 Ill. Adm. Code 728.145. I am aware that there are significant penalties for making a false certification, including the possibility of fine and imprisonment."

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 728.109 Special Rules for Characteristic Wastes

a) The initial generator of a solid waste shall determine each U~~.~~S~~.~~ EPA hazardous waste number (waste code) applicable to the waste in order to determine the applicable treatment standards under ~~728.~~Subpart D of this Part. For purposes of this Part, the waste must carry the waste code for any applicable listing under 35 Ill. Adm. Code 721.Subpart D. In addition, the waste must carry one or more of the waste codes under 35 Ill. Adm. Code 721.Subpart C where the waste exhibits a characteristic, except in the case when the treatment standard for the waste code listed in 35 Ill. Adm. Code 721.Subpart D operates in lieu of the standard for the waste code under 35 Ill. Adm. Code 721.Subpart C, as specified in subsection (b) ~~below~~of this Section. If the generator determines that its waste displays ~~the~~a characteristic of ~~ignitability (D001)~~hazardous waste (and the waste is not ~~in the~~a D004 through D011 waste, a High TOC ~~Ignitable Liquids Subcategory~~D001 waste, ~~or~~and is not treated by CMBST or RORGS, as described in Section 728.Table C), ~~that its waste displays the characteristic of corrosivity (D002) and is prohibited under Section 728.137, or that its waste displays the characteristic of toxicity (D012 through D043) and is prohibited under Section 728.138,~~ the generator shall determine what underlying hazardous constituents (as defined in Section 728.102) are reasonably expected to be present ~~in the D001, D002, or D012 through D043 waste~~above the universal treatment standards set forth in Sections 728.148 and 728.Table U.

b) Where a prohibited waste is both listed under 35 Ill. Adm. Code 721.Subpart D and exhibits a characteristic under 35 Ill. Adm. Code 721.Subpart C, the treatment standard for the waste code listed in 35 Ill. Adm. Code 721.Subpart D will operate in lieu of the standard for the waste code under 35 Ill. Adm. Code 721.Subpart C, provided that the treatment standard for the listed waste includes a treatment standard for the constituent that causes the waste to exhibit the characteristic. Otherwise, the waste must meet the treatment standards for all applicable listed and characteristic waste codes.

c) In addition to any applicable standards determined from the initial point of generation, no prohibited waste that exhibits a characteristic under 35 Ill. Adm. Code 721.Subpart C shall be land disposed unless the waste complies with the treatment standards under ~~728.~~Subpart D of this Part.

d) A waste~~s~~ that exhibits a characteristic is also subject to Section 728.107 requirements, except that once the waste is no longer hazardous, a ~~one~~

~~time~~one-time notification and certification must be placed in the generator's or treater's files and sent to the Agency, except for those facilities described in subsection (f) below. The notification and certification that is placed in the generator's or treater's files must be updated if the process or operation generating the waste changes or if the subtitle D facility receiving the waste changes. However, the generator or treater need only notify the Agency on an annual basis if such changes occur. Such notification and certification should be sent to the Agency by the end of the year, but no later than December 31.

1) The notification must include the following information:

   A) ~~T~~For a characteristic waste other than one managed on site in a wastewater treatment system subject to the federal Clean Water Act (CWA), a zero-discharger engaged in CWA-equivalent treatment, or a Class I nonhazardous waste injection well, the name and address of the RCRA Subtitle D (municipal solid waste landfill) facility receiving the waste shipment; and

   B) ~~A~~For a waste that exhibits a characteristic of hazardous waste, a description of the waste as initially generated, including the applicable U~~.~~S~~.~~ EPA hazardous waste numbers, the treatability group(s), and the underlying hazardous constituents ~~(as defined in Section 728.102(i)) in D001 and D002 wastes prohibited under Section 728.137 or D012 through D043 wastes prohibited under Section 728.138~~.

2) The certification must be signed by an authorized representative and must state the language found in Section 728.107(b)(5)(A). If treatment removes the characteristic but does not treat underlying hazardous constituents, then the certification found in Section 728.107(b)(5)(D) applies.

3) For a characteristic waste whose ultimate disposal will be into a Class I nonhazardous waste injection well, and for which compliance with the treatment standards set forth in Sections 728.148 and 728.Table U for underlying hazardous constituents is achieved through pollution prevention that meets the criteria set forth at 35 Ill. Adm. Code 738.101(d), the following information must also be included:

   A) A description of the pollution prevention mechanism and when it was implemented if already complete;

B) The mass of each underlying hazardous constituent before pollution prevention;

C) The mass of each underlying hazardous constituent that must be removed, adjusted to reflect variations in mass due to normal operating conditions; and

D) The mass reduction of each underlying hazardous constituent that is achieved.

e) For a decharacterized waste managed on-site in a wastewater treatment system subject to the federal Clean Water Act (CWA) or zero-dischargers engaged in CWA-equivalent treatment, compliance with the treatment standards set forth in Sections 728.148 and 728.Table D must be monitored quarterly, unless the treatment is aggressive biological treatment, in which case compliance must be monitored annually. Monitoring results must be kept in on-site files for 5 years.

f) For a decharacterized waste managed on-site in a wastewater treatment system subject to the federal Clean Water Act (CWA) for which all underlying hazardous constituents (as defined in Section 728.102) are addressed by a CWA permit, this compliance must be documented and this documentation must be kept in on-site files.

g) For a characteristic waste whose ultimate disposal will be into a Class I nonhazardous waste injection well that qualifies for the de minimis exclusion described in Section 728.101, information supporting that qualification must be kept in on-site files.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

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

Section 728.110 First Third (Repealed)

~~The Board incorporates by reference 40 CFR 268.10 (1991). This Section incorporates no later editions or amendments.~~

(Source: Repealed at 21 Ill. Reg. _____, effective _____)

Section 728.111 Second Third (Repealed)

~~The Board incorporates by reference 40 CFR 268.11 (1991). This Section incorporates no later editions or amendments.~~

(Source: Repealed at 21 Ill. Reg. _____, effective _____)

Section 728.112 Third Third (Repealed)

~~The Board incorporates by reference 40 CFR 268.12 (1991). This Section incorporates no later editions or amendments.~~

(Source: Repealed at 21 Ill. Reg. _____, effective _____)

SUBPART C: PROHIBITION ON LAND DISPOSAL

Section 728.139 ~~Statutory Prohibitions~~Waste-Specific Prohibitions: End-of-pipe CWA, CWA-Equivalent, and Class I Nonhazardous Waste Injection Well Treatment Standards; Spent Aluminum Potliners; and Carbamate Wastes

~~No person shall cause, threaten or allow the land disposal of any waste in violation of Section 3004 of the Resource Conservation and Recovery Act, incorporated by reference in 35 Ill. Adm. Code 720.111.~~

a) The wastes specified in 35 Ill. Adm. Code 721.132 as USEPA Hazardous Waste numbers K156-K159 and K161; and in 35 Ill. Adm. Code 721.133 as USEPA hazardous waste numbers P127, P128, P185, P188 through P192, P194, P196 through P199, P201 through P205, U271, U278 through U280, U364, U367, U372, U373, U387, U389, U394, U395, U404, and U409 through U411 are prohibited from land disposal. In addition, soil and debris contaminated with these wastes are prohibited from land disposal.

b) The wastes identified in 35 Ill. Adm. Code 721.123 as USEPA hazardous waste number D003 are prohibited from land disposal, other than those that are managed in a system whose discharge is regulated under 35 Ill. Adm. Code:Subtitle C, one that injects hazardous waste in Class I waste injection well regulated under 35 Ill. Adm. Code 702, 704, and 730, or one that is a zero discharger that engages in federal Clean Water Act (CWA)-equivalent treatment before ultimate land disposal. This prohibition does not apply to unexploded ordnance and other explosive devices that have been the subject of an emergency response. (Such D003 wastes are prohibited unless they meet the treatment standard of DEACT before land disposal (see Section 728.140)).

c) The wastes specified in 35 Ill. Adm. Code 721.132 as USEPA hazardous waste number K088 are prohibited from land disposal. In addition, soil and debris contaminated with these wastes are prohibited from land disposal.

d) Effective April 8, 1998, radioactive wastes mixed with waste designated by any of USEPA hazardous waste numbers K088, K156 through K159, K161, P127, P128, P185, P188 through P192, P194, P196 through P199, P201 through P205, U271, U278 through U280, U364, U367, U372, U373, U387, U389, U394, U395, U404, and U409 through U411 are prohibited from land disposal. In addition, soil and debris contaminated with these radioactive mixed wastes are prohibited from land disposal.

e) Until April 8, 1998, the wastes included in subsections (a), (b), (c), and (d) of this Section may be disposed in a landfill or surface impoundment only if such unit complies with the requirements of Section 728.105(h)(2).

f) The requirements of subsections (a), (b), (c), and (d) of this Section do not apply if:

1) The wastes meet the applicable treatment standards specified in Subpart D of this Part;

2) The person conducting the disposal has been granted an exemption from a prohibition under a petition pursuant to Section 728.106, with respect to those wastes and units covered by the petition;

3) The wastes meet the applicable alternative treatment standards established pursuant to a petition granted under Section 728.144; or

4) The person conducting the disposal has been granted an extension to the effective date of a prohibition pursuant to Section 728.105, with respect to those wastes covered by the extension.

g) To determine whether a hazardous waste identified in this Section exceeds the applicable treatment standards set forth in Section 728.140, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or in the waste, or the generator may use knowledge of the waste. If a waste contains constituents in excess of the applicable 728.Subpart D levels, the waste is prohibited from land

disposal and all requirements of this Part are applicable to the waste, except as otherwise specified.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

SUBPART D: TREATMENT STANDARDS

Section 728.140 Applicability of Treatment Standards

a) A prohibited waste identified in Section 728.Table T, "Treatment Standards for Hazardous Wastes", may be land disposed only if it meets the requirements found in that Section. For each waste, Section 728.Table T identifies one of three types of treatment standard requirements:

1) All hazardous constituents in the waste or in the treatment residue must be at or below the values found in that Section for that waste ("total waste standards");

2) The hazardous constituents in the extract of the waste or in the extract of the treatment residue must be at or below the values found in that Section ("waste extract standards"); or

3) The waste must be treated using the technology specified in that Section ("technology standard"), which is described in detail in Section 728.Table C, "Technology Codes and Description of Technology-Based Standards".

b) For wastewaters, compliance with concentration level standards is based on maximums for any one day, except for D004 through D011 wastes for which the previously promulgated treatment standards based on grab samples remain in effect. For all nonwastewaters, compliance with concentration level standards is based on grab sampling. For wastes covered by the waste extract standards, the test Method 1311, the Toxicity Characteristic Leaching Procedure, found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", U.S. EPA Publication SW-846, incorporated by reference in Section 720.111, must be used to measure compliance. An exception is made for D004 and D008, for which either of two test methods may be used: Method 1311 or Method 1310, the Extraction Procedure Toxicity Test, found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", U.S. EPA Publication SW-846, incorporated by reference in Section 720.111. For wastes covered by a technology standard, the wastes may be land disposed after being treated using that specified technology or an

equivalent treatment technology approved by the Agency pursuant to Section 728.142(b).

c) When wastes with differing treatment standards for a constituent of concern are combined for purposes of treatment, the treatment residue must meet the lowest treatment standard for the constituent of concern.

d) Notwithstanding the prohibitions specified in subsection (a) ~~above~~of this Section, treatment and disposal facilities may demonstrate (and certify pursuant to 35 Ill. Adm. Code 728.107(b)(5)) compliance with the treatment standards for organic constituents specified by a footnote in Section 728.Table T, provided the following conditions are satisfied:

1) The treatment standards for the organic constituents were established based on incineration in units operated in accordance with the technical requirements of 35 Ill. Adm. Code 724.Subpart O, or based on combustion in fuel substitution units operating in accordance with applicable technical requirements;

2) The treatment or disposal facility has used the methods referenced in subsection (d)(1) ~~above~~of this Section to treat the organic constituents; and

3) The treatment or disposal facility may demonstrate compliance with organic constituents if good-faith analytical efforts achieve detection limits for the regulated organic constituents that do not exceed the treatment standards specified in this Section and Section 728.Table T by an order of magnitude.

e) For characteristic wastes (U~~.~~S~~.~~ EPA hazardous waste numbers D001~~,~~ ~~D002, and D012~~ through D003 and D018 through D043) that are subject to treatment standards set forth in Section 728.Table T, "Treatment Standards for Hazardous Wastes", all underlying hazardous constituents (as defined in Section 728.102(i)) must meet the universal treatment standards, ~~found~~set forth in Section~~s~~ ~~728.148 and~~ 728.Table U prior to land disposal, as defined in Section 728.102(c).

f) The treatment standards for U~~.~~S~~.~~ EPA hazardous waste numbers F001 through F005 nonwastewater constituents carbon disulfide, cyclohexanone, or methanol apply to wastes that contain only one, two, or three of these constituents. Compliance is measured for these constituents in the waste extract from test Method 1311, the Toxicity Characteristic Leaching Procedure found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", U~~.~~S~~.~~ EPA Publication SW-846, incorporated by reference in Section 720.111. If

the waste contains any of these three constituents along with any of the other 25 constituents found in U.S. EPA hazardous waste numbers F001 through F005, then compliance with treatment standards for carbon disulfide, cyclohexanone, or methanol are not required.

g) This subsection corresponds with 40 CFR 268.40(g), added at 61 Fed. Reg. 43927 (Aug. 26, 1996), which has expired. This statement maintains structural consistency with the federal rules.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 728.144 Adjustment of Treatment Standard

a) Where the treatment standard is expressed as a concentration in a waste or waste extract and a waste cannot be treated to the specified level, or where the treatment technology is not appropriate to the waste, the generator or treatment facility may petition to the Board for an adjusted treatment standard. As justification, the petitioner shall demonstrate that, because the physical or chemical properties of the waste differ significantly from wastes analyzed in developing the treatment standard, the waste cannot be treated to specified levels or by the specified methods.

BOARD NOTE: 40 CFR 268.44 refers to these as "treatability variances". The Board has not used this term in its rules to avoid confusion with the Board variances under Title IX of the Environmental Protection Act. The equivalent Board procedures are an "adjusted treatment standard" pursuant to subsections (a) through (l), or a "treatability exception" adopted pursuant to subsections (m) et seq. While the latter is adopted by "identical in substance" rulemaking following a USEPA action, the former is an original Board action which will be the only mechanism following authorization to the State of this component of the RCRA program.

b) Each petition must be submitted in accordance with the procedures in 35 Ill. Adm. Code 106.Subpart G.

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

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

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

d) After receiving a petition for an adjusted treatment standard, the Board may request any additional information or samples which are necessary to evaluate the petition.

e) The Board will give public notice and provide an opportunity for public comment, as provided in 35 Ill. Adm. Code 106. In conjunction with any updating of the RCRA regulations, the Board will maintain, in this Part, a listing of all adjusted treatment standards granted by the Board pursuant to this Section. A LISTING OF ALL ADJUSTED STANDARDS GRANTED PURSUANT TO THIS SECTION WILL BE PUBLISHED IN THE ILLINOIS REGISTER AND ENVIRONMENTAL REGISTER AT THE END OF EACH FISCAL YEAR. (Section 28.1(d)(3) of the Environmental Protection Act.)

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

g) During the petition review process, the applicant is required to comply with all restrictions on land disposal under this Part once the effective date for the waste has been reached.

h) Where the treatment standard is expressed as a concentration in a waste or waste extract and a waste generated under conditions specific to only one site cannot be treated to the specified level, or where treatment technology is not appropriate to the waste, the generator or treatment facility may petition the Board for a site-specific adjusted treatment standard. The petitioner shall demonstrate that, because the physical or chemical properties of the waste differs significantly from the waste analyzed in developing the treatment standard, the waste cannot be treated to specified levels or by the specified methods.

i) Each petition for a site-specific adjusted treatment standard must include the information in 35 Ill. Adm. Code 720.120(b)(1) through (4).

j) After receiving a petition for a site-specific adjusted treatment standard, the Board may request any additional information or samples which the Board determines are necessary to evaluate the petition.

k) A generator, treatment facility or disposal facility which is managing a waste covered by a site-specific adjusted treatment standard shall comply with the waste analysis requirements for restricted wastes in Section 728.107.

l) During the petition review process, the petitioner for a site-specific adjusted treatment standard shall comply with all restrictions on land disposal under this Part once the effective date for the waste has been reached.

m) If USEPA grants a treatability exception by regulatory action pursuant to 40 CFR 268.44 (19~~91~~96) and a person demonstrates that the treatability exception needs to be adopted as part of the Illinois RCRA program because the waste is generated or managed in Illinois, the Board will adopt the treatability exception by identical in substance rulemaking pursuant to Section 22.4(a) of the Environmental Protection Act.

BOARD NOTE: The Board will adopt the treatability exception during a RCRA update Docket if a timely demonstration is made. Otherwise, the Board will assign the matter to a separate Docket.

o) The facilities listed in Table H are excluded from the treatment standard under Section 728.143(a) and Table B, and are subject to the constituent concentrations listed in Table H.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 728.148 Universal Treatment Standards

Section 728.Table U, "Universal Treatment Standards (UTS)", identifies the hazardous constituents, along with the nonwastewater and wastewater treatment standard levels, that are used to regulate most prohibited hazardous wastes with numerical limits. For determining compliance with treatment standards for underlying hazardous constituents, as defined in Section 728.102(i), these treatment standards may not be exceeded. Compliance with these treatment standards is measured by an analysis of grab samples, unless otherwise noted in Section 728.Table U.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 728.Appendix K Metal Bearing Wastes Prohibited From Dilution in a Combustion Unit According to Section 728.103(c)

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

Waste code	Waste description
D004	Toxicity Characteristic for Arsenic.
D005	Toxicity Characteristic for Barium.
D006	Toxicity Characteristic for Cadmium.
D007	Toxicity Characteristic for Chromium.
D008	Toxicity Characteristic for Lead.
D009	Toxicity Characteristic for Mercury.
D010	Toxicity Characteristic for Selenium.
D011	Toxicity Characteristic for Silver.
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating carbon steel; (3) zinc plating basis on carbon steel; (4) aluminum or zinc-plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.
F007	Spent cyanide plating bath solutions from electroplating operations.
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.
F010	Quenching bath residues from oil baths from metal treating operations where cyanides are used in the process.
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.
F012	Quenching waste water treatment sludges from metal heat treating operations where cyanides are used in the process.

F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum car washing when such phosphating is an exclusive conversion coating process.
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.
K003	Wastewater treatment sludge from the production of molybdate orange pigments.
K004	Wastewater treatment sludge from the production of zinc yellow pigments.
K005	Wastewater treatment sludge from the production of chrome green pigments.
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).
K007	Wastewater treatment sludge from the production of iron blue pigments.
K008	Oven residue from the production of chrome oxide green pigments.
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.
K069	Emission control dust/sludge from secondary lead smelting.
K071	Brine purification muds from the mercury cell processes in chlorine production, where separately prepurified brine is not used.
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.
K106	Sludges from the mercury cell processes for making chlorine.
P010	Arsenic acid H_3AsO_4.
P011	Arsenic oxide As_2O_5.
P012	Arsenic trioxide.
P013	Barium cyanide.
P015	Beryllium.

P029 Copper (I) cyanide Cu(CN).

P074 Nickel (II) cyanide $Ni(CN)_2$.

P087 Osmium (VIII) tetroxide OsO_4.

P099 Potassium silver cyanide $KAg(CN)_2$.

P104 Silver cyanide AgCN.

P113 Thallic (III) oxide Tl_2O_3.

P114 Thallium (I) selenite Tl_2SeO_3.

P115 Thallium (I) sulfate Tl_2SO_4.

P119 Ammonium (V) vanadate NH_3VO_3.

P120 Vanadium (V) oxide V_2O_5.

P121 Zinc cyanide ZnCN.

U032 Calcium chromate $CaCrO_4$.

U145 Lead phosphate.

U151 Mercury.

U204 Selenous acid H_2SeO_3.

U205 Selenium (IV) disulfide SeS_2.

U216 Thallium (I) chloride TlCl.

U217 Thallium (I) nitrate $TlNO_3$.

(Source: Added at 21 Ill. Reg. _____, effective _____)

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

Technology code	Description of technology-based standard

ADGAS Venting of compressed gases into an absorbing or reacting media (i.e., solid or liquid)--venting can be accomplished through physical release utilizing valves or piping; physical penetration of the container; or penetration through detonation.

AMLGM Amalgamation of liquid, elemental mercury contaminated with radioactive materials utilizing inorganic reagents such as copper, zinc, nickel, gold, and sulfur that result in a nonliquid, semi-solid amalgam and thereby reducing potential emissions of elemental mercury vapors to the air.

BIODG Biodegradation of organics or non-metallic inorganics (i.e., degradable inorganics that contain the elements of phosphorus, nitrogen, and sulfur) in units operated under either aerobic or anaerobic conditions such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., total organic carbon (TOC) can often be used as an indicator parameter for the biodegradation of many organic constituents that cannot be directly analyzed in wastewater residues).

CARBN Carbon adsorption (granulated or powdered) of non-metallic inorganics, organo-metallics, or organic constituents, operated so that a surrogate compound or indicator parameter has not undergone breakthrough (e.g., total organic carbon (TOC) can often be used as an indicator parameter for the adsorption of many organic constituents that cannot be directly analyzed in wastewater residues). Breakthrough occurs when the carbon has become saturated with the constituent (or indicator parameter) and substantial change in adsorption rate associated with that constituent occurs.

CHOXD Chemical or electrolytic oxidation utilizing the following oxidation reagents (or waste reagents) or combinations or reagents:

1) hypochlorite (e.g., bleach);

2) chlorine;

3) chlorine dioxide;

4) ozone or UV (ultraviolet light) assisted ozone;

5) peroxides;

6) persulfates;

7) perchlorates;

8) permanganates; or

9) other oxidizing reagents of equivalent efficiency, performed in units operated so that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., total organic carbon (TOC) can often be used as an indicator parameter for the oxidation of many organic constituents that cannot be directly analyzed in wastewater residues). Chemical oxidation specifically includes what is commonly referred to as alkaline chlorination.

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

1) sulfur dioxide;

2) sodium, potassium, or alkali salts of sulfites, bisulfites, metabisulfites, and polyethylene glycols (e.g., NaPEG and KPEG);

3) sodium hydrosulfide;

4) ferrous salts; or

5) other reducing reagents of equivalent efficiency, performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., total organic halogens (TOX) can often be used as an indicator parameter for the reduction of many halogenated organic constituents that cannot be directly analyzed in wastewater residues). Chemical reduction is commonly used for the reduction of hexavalent chromium to the trivalent state.

CMBST Combustion in incinerators, boilers, or industrial furnaces operated in accordance with the applicable requirements of 35 Ill. Adm. Code 724.Subpart O, 725.Subpart O, or 35 Ill. Adm. Code 726.Subpart H.

DEACT Deactivation to remove the hazardous characteristics of a waste due to its ignitability, corrosivity, or reactivity.

FSUBS Fuel substitution in units operated in accordance with applicable technical operating requirements.

HLVIT Vitrification of high level mixed radioactive wastes in units in compliance with all applicable radioactive protection requirements under control of the federal Nuclear Regulatory Commission.

IMERC Incineration of wastes containing organics and mercury in units operated in accordance with the technical operating requirements of 35 Ill. Adm. Code 724.Subpart O or 725.Subpart O. All wastewater and nonwastewater residues derived from this process must then comply with the corresponding treatment standards per waste code with consideration of any applicable subcategories (e.g., high or low mercury sub-categories).

INCIN Incineration in units operated in accordance with the technical operating requirements of 35 Ill. Adm. Code 724.Subpart O or 725.Subpart O.

LLEXT Liquid-liquid extraction (often referred to as solvent extraction) of organics from liquid wastes into an immiscible solvent for which the hazardous constituents have a greater solvent affinity, resulting in an extract high in organics that must undergo either incineration, reuse as a fuel, or other recovery or reuse and a raffinate (extracted liquid waste) proportionately low in organics that must undergo further treatment as specified in the standard.

MACRO Macroencapsulation with surface coating materials such as polymeric organics (e.g., resins and plastics) or with a jacket of inert inorganic materials to substantially reduce surface exposure to potential leaching media. Macroencapsulation specifically does not include any material that would be classified as a tank or container according to 35 Ill. Adm. Code 720.110.

NEUTR Neutralization with the following reagents (or waste reagents) or combinations of reagents:

1) acids;

2) bases; or

3) water (including wastewaters) resulting in a pH greater than 2 but less than 12.5 as measured in the aqueous residuals.

NLDBR No land disposal based on recycling.

PRECP Chemical precipitation of metals and other inorganics as insoluble precipitates of oxides, hydroxides, carbonates, sulfides, sulfates,

chlorides, fluorides, or phosphates. The following reagents (or waste reagents) are typically used alone or in combination:

1) lime (i.e., containing oxides or hydroxides of calcium or magnesium;

2) caustic (i.e., sodium or potassium hydroxides;

3) soda ash (i.e., sodium carbonate);

4) sodium sulfide;

5) ferric sulfate or ferric chloride;

6) alum; or

7) sodium sulfate. Additional flocculating, coagulation, or similar reagents or processes that enhance sludge dewatering characteristics are not precluded from use.

RBERY Thermal recovery of beryllium.

RCGAS Recovery or reuse of compressed gases including techniques such as reprocessing of the gases for reuse or resale; filtering or adsorption of impurities; remixing for direct reuse or resale; and use of the gas as a fuel source.

RCORR Recovery of acids or bases utilizing one or more of the following recovery technologies:

1) distillation (i.e., thermal concentration);

2) ion exchange;

3) resin or solid adsorption;

4) reverse osmosis; or

5) incineration for the recovery of acid--

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

RLEAD Thermal recovery of lead in secondary lead smelters.

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

a) A national emissions standard for hazardous air pollutants (NESHAP) for mercury (40 CFR 61, Subpart E);

b) A best available control technology (BACT) or a lowest achievable emission rate (LAER) standard for mercury imposed pursuant to a prevention of significant deterioration (PSD) permit (including 35 Ill. Adm. Code 201 through 203); or

c) A state permit that establishes emission limitations (within meaning of Section 302 of the Clean Air Act) for mercury, including a permit issued pursuant to 35 Ill. Adm. Code 201. All wastewater and nonwastewater residues derived from this process must then comply with the corresponding treatment standards per waste code with consideration of any applicable subcategories (e.g., high or low mercury subcategories).

RMETL Recovery of metals or inorganics utilizing one or more of the following direct physical or removal technologies:

1) ion exchange;

2) resin or solid (i.e., zeolites) adsorption;

3) reverse osmosis;

4) chelation or solvent extraction;

5) freeze crystallization;

6) ultrafiltration; or

7) simple precipitation (i.e., crystallization)

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

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

1) Distillation;

2) thin film evaporation;

3) steam stripping;

4) carbon adsorption;

5) critical fluid extraction;

6) liquid-liquid extraction;

7) precipitation or crystallization (including freeze crystallization); or

8) chemical phase separation techniques (i.e., addition of acids, bases, demulsifiers, or similar chemicals).

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

RTHRM Thermal recovery of metals or inorganics from nonwastewaters in units defined as cement kilns, blast furnaces, smelting, melting and refining furnaces, combustion devices used to recover sulfur values from spent sulfuric acid and "other devices" determined by the Agency pursuant to 35 Ill. Adm. Code 720.110, the definition of "industrial furnace".

RZINC Resmelting in high temperature metal recovery units for the purpose of recovery of zinc.

STABL Stabilization with the following reagents (or waste reagents) or combinations of reagents:

1) Portland cement; or

2) lime or pozzolans (e.g., fly ash and cement kiln dust)--this does not preclude the addition of reagents (e.g., iron salts, silicates, and clays) designed to enhance the set or cure time or compressive strength, or to overall reduce the leachability of the metal or inorganic.

SSTRP Steam stripping of organics from liquid wastes utilizing direct application of steam to the wastes operated such that liquid and vapor flow rates, as well as, temperature and pressure ranges have been

optimized, monitored, and maintained. These operating parameters are dependent upon the design parameters of the unit such as, the number of separation stages and the internal column design. Thus, resulting in a condensed extract high in organics that must undergo either incineration, reuse as a fuel, or other recovery or reuse and an extracted wastewater that must undergo further treatment as specified in the standard.

WETOX Wet air oxidation performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., total organic carbon (TOC) can often be used as an indicator parameter for the oxidation of many organic constituents that cannot be directly analyzed in wastewater residues).

WTRRX Controlled reaction with water for highly reactive inorganic or organic chemicals with precautionary controls for protection of workers from potential violent reactions as well as precautionary controls for potential emissions of toxic or ignitable levels of gases released during the reaction.

Note 1: When a combination of these technologies (i.e., a treatment train) is specified as a single treatment standard, the order of application is specified in Section 728.Table T by indicating the five letter technology code that must be applied first, then the designation "fb." (an abbreviation for "followed by"), then the five letter technology code for the technology that must be applied next, and so on.

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

(Source: Amended at 21 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[1]	Regulated Hazardous Constituent	Wastewaters	Nonwastewaters

Common Name	CAS[2] Number	Concentration in mg/l[3]; or Technology Code[4]	Concentration in mg/kg[3][5] unless noted as "mg/l TCLP"; or Technology Code[4]
D001[9] Ignitable Characteristic Wastes, except for the ~~Section~~ 35 Ill. Adm. Code 721.121(a)(1) High TOC Subcategory~~, that are managed in non-CWA or non-CWA-equivalent or non-Class I SDWA systems~~.			
NA	NA	DEACT and meet Section 728.148 standards;[8] or RORGS; or CMBST	DEACT and meet Section 728.148 standards;[8] or RORGS; or CMBST
~~D001~~ ~~Ignitable Characteristic Wastes, except for the Section 721.121(a)(1) High TOC Subcategory, that are managed in CWA or CWA-equivalent or Class I SDWA systems~~			
~~NA~~	~~NA~~	~~DEACT~~	~~DEACT~~
D001[9] High TOC Ignitable Characteristic Liquids Subcategory based on 35 Ill. Adm. Code 721.121(a)(1) - Greater than or equal to 10% total organic carbon. (Note: This subcategory consists of nonwastewaters only.)			
NA	NA	NA	RORGS; or CMBST
D002[9] Corrosive Characteristic Wastes ~~that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems~~.			
NA	NA	DEACT and meet Section 728.148 standards[8]	DEACT and meet Section 728.148 standards[8]
~~D002~~ ~~Corrosive Characteristic Wastes that are managed in CWA, CWA equivalent, or Class I SDWA systems.~~			
~~NA~~	~~NA~~	~~DEACT~~	~~DEACT~~
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[9]

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

NA	NA	DEACT	DEACT

D003[9]

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[8]	DEACT and meet Section 728.148 standards[8]

D003[9]

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

NA	NA	DEACT	DEACT

D003[9]

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

NA	NA	DEACT and meet Section 728.148 standards[8]	DEACT and meet Section 728.148 standards[8]

D003[9]

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[8]

D003[9]

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

Cyanides (Total)[7]	57-12-5	--	590
Cyanides (Amenable)[7]	57-12-5	0.86	30

D004
Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for arsenic based on the extraction procedure (EP) in SW-846 Method 1310.

Arsenic	7440-38-2	5.0	5.0 mg/l EP
Arsenic; alternative[6] standard for nonwastewaters only.	7440-38-2	NA	5.0 mg/l TCLP

D005
Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for barium based on the extraction procedure (EP) in SW-846 Method 1310.

Barium	7440-39-3	100	100 mg/l TCLP

D006
Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for cadmium based on the extraction procedure (EP) in SW-846 Method 1310.

Cadmium	7440-43-9	1.0	1.0 mg/l TCLP

D006
Cadmium–Containing Batteries Subcategory
(Note: This subcategory consists of nonwastewaters only.)

Cadmium	7440-43-9	NA	RTHRM

D007
Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for chromium based on the extraction procedure (EP) in SW-846 Method 1310.

Chromium (Total)	7440-47-3	5.0	5.0 mg/l TCLP

D008
Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for lead based on the extraction procedure (EP) in SW-846 Method 1310.

Lead	7439-92-1	5.0	5.0 mg/l EP
Lead; alternative[6] standard for nonwastewaters only	7439-92-1	NA	5.0 mg/l TCLP

D008
Lead Acid Batteries Subcategory
(Note: This standard only applies to lead acid batteries that are identified as RCRA hazardous wastes and that are not excluded elsewhere from regulation under the land disposal restrictions of this Part or exempted under other regulations (see 35 Ill. Adm. Code 726.180). This subcategory consists of nonwastewaters only.)
~~(Note: This subcategory consists of nonwastewaters only.)~~

Lead	7439-92-1	NA	RLEAD

D008
Radioactive Lead Solids Subcategory
(Note: These lead solids include, but are not limited to, all forms of lead shielding and other elemental forms of lead. These lead solids do not include treatment residuals such as hydroxide sludges, other wastewater treatment residuals, or incinerator ashes that can undergo conventional pozzolanic stabilization, nor do they include organo-lead materials that can be incinerated and stabilized as ash. This subcategory consists of nonwastewaters only.)
~~(Note: This subcategory consists of nonwastewaters only.)~~

Lead	7439-92-1	NA	MACRO

D009
Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the extraction procedure (EP) in SW-846 Method 1310; and contain greater than or equal to 260 mg/kg total mercury that also contain organics and are not incinerator residues. (High Mercury-Organic Subcategory)
~~(High Mercury-Organic Subcategory)~~

Mercury	7439-97-6	NA	IMERC; or RMERC

D009
Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the extraction procedure (EP) in SW-846 Method 1310; and contain greater than or equal to 260 mg/kg total mercury that are inorganic, including incinerator residues and residues from RMERC. (High Mercury-Inorganic Subcategory)
~~(High Mercury-Inorganic Subcategory)~~

Mercury	7439-97-6	NA	RMERC

D009
Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the extraction procedure (EP) in SW-846 Method 1310; and contain less than 260 mg/kg total mercury. (Low Mercury Subcategory)
~~(Low Mercury Subcategory)~~

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

All D009 wastewaters.

Mercury	7439-97-6	0.20	NA

D009
Elemental mercury contaminated with radioactive materials.
(Note: This subcategory consists of nonwastewaters only.)

Mercury	7439-97-6	NA	AMLGM

D009
Hydraulic oil contaminated with Mercury Radioactive Materials Subcategory.
(Note: This subcategory consists of nonwastewaters only.)

Mercury	7439-97-6	NA	IMERC

D010
Wastes that exhibit, or are expected to exhibit, the characteristic ~~or~~of toxicity for selenium based on the extraction procedure (EP) in SW-846 Method 1310.

Selenium	7782-49-2	1.0	5.7 mg/l TCLP

D011
Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for silver based on the extraction procedure (EP) in SW-846 Method 1310.

Silver	7440-22-4	5.0	5.0 mg/l TCLP

D012[9]
Wastes that are TC for Endrin based on the TCLP in SW-846 Method 1311.

Endrin	72-20-8	BIODG; or ~~INCIN~~CMBST	0.13 and meet Section 728.148 standards[8]
Endrin aldehyde	7421-93-4	BIODG; or ~~INCIN~~CMBST	0.13 and meet Section 728.148 standards[8]

D013[9]
Wastes that are TC for Lindane based on the TCLP in SW-846 Method 1311.

alpha-BHC	319-84-6	CARBN; or ~~INCIN~~CMBST	0.066 and meet Section 728.148 standards[8]
beta-BHC	319-85-7	CARBN; or ~~INCIN~~CMBST	0.066 and meet Section 728.148 standards[8]
delta-BHC	319-86-8	CARBN; or ~~INCIN~~CMBST	0.066 and meet Section 728.148 standards[8]
gamma-BHC (Lindane)	58-89-9	CARBN; or ~~INCIN~~CMBST	0.066 and meet Section 728.148 standards[8]

D014[9]
Wastes that are TC for Methoxychlor based on the TCLP in SW-846 Method 1311.

Methoxychlor	72-43-5	WETOX or ~~INCIN~~CMBST	0.18 and meet Section 728.148 standards[8]

D015[9]
Wastes that are TC for Toxaphene based on the TCLP in SW-846 Method 1311.

Toxaphene	8001-35-2	BIODG or ~~INCIN~~CMBST	2.6 and meet Section 728.148 standards[8]

D016[9]
Wastes that are TC for 2,4-D (2,4-Dichlorophenoxyacetic acid) based on the TCLP in SW-846 Method 1311.

2,4-D (2,4-Dichloro-phenoxyacetic acid)	94-75-7	CHOXD~~,~~; BIODG~~,~~; or ~~INCIN~~CMBST	10 and meet Section 728.148 standards[8]

D017[9]
Wastes that are TC for 2,4,5-TP (Silvex) based on the TCLP in SW-846 Method 1311.

2,4,5-TP (Silvex)	93-72-1	CHOXD or ~~INCIN~~CMBST	7.9 and meet Section 728.148 standards[8]

D018[9]
Wastes that are TC for Benzene based on the TCLP in SW-846 Method 1311 ~~and that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems only~~.

Benzene	71-43-2	0.14 and meet Section 728.148 standards[8]	10 and meet Section 728.148 standards[8]

D019[9]
Wastes that are TC for Carbon tetrachloride based on the TCLP in SW-846 Method 1311 ~~and that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems only~~.

Carbon tetrachloride	56-23-5	0.057 and meet Section 728.148 standards[8]	6.0 and meet Section 728.148 standards[8]

D020[9]
Wastes that are TC for Chlordane based on the TCLP in SW-846 Method 1311 ~~and that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems only~~.

Chlordane (alpha and gamma isomers)	57-74-9	0.0033 and meet Section 728.148 standards[8]	0.26 and meet Section 728.148 standards[8]

D021[9]
Wastes that are TC for Chlorobenzene based on the TCLP in SW-846 Method 1311 ~~and that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems only~~.

Chlorobenzene	108-90-7	0.057 and meet Section 728.148 standards[8]	6.0 and meet Section 728.148 standards[8]

D022[9]
Wastes that are TC for Chloroform based on the TCLP in SW-846 Method 1311 ~~and that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems only~~.

Chloroform	67-66-3	0.046 and meet Section 728.148 standards[8]	6.0 and meet Section 728.148 standards[8]

D023[9]
Wastes that are TC for o-Cresol based on the TCLP in SW-846 Method 1311 ~~and that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems only~~.

o-Cresol~~`~~	95-48-7	0.11 and meet Section 728.148 standards[8]	5.6 and meet Section 728.148 standards[8]

D024[9]
Wastes that are TC for m-Cresol based on the TCLP in SW-846 Method 1311 ~~and that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems only~~.

m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77 and meet Section 728.148 standards[8]	5.6 and meet Section 728.148 standards[8]

D025[9]
Wastes that are TC for p-Cresol based on the TCLP in SW-846 Method 1311 ~~and that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems only~~.

p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77 and meet Section 728.148 standards[8]	5.6 and meet Section 728.148 standards[8]

D026[9]
Wastes that are TC for Cresols (Total) based on the TCLP in SW-846 Method 1311 ~~and that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems only~~.

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

D027[9]

Wastes that are TC for p-Dichlorobenzene based on the TCLP in SW-846 Method 1311 ~~and that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems only~~.

p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	0.090 and meet Section 728.148 standards[8]	6.0 and meet Section 728.148 standards[8]

D028[9]

Wastes that are TC for 1,2-Dichloroethane based on the TCLP in SW-846 Method 1311 ~~and that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems only~~.

1,2-Dichloroethane	107-06-2	0.21 and meet Section 728.148 standards[8]	6.0 and meet Section 728.148 standards[8]

D029[9]

Wastes that are TC for 1,1-Dichloroethylene based on the TCLP in SW-846 Method 1311 ~~and that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems only~~.

1,1-Dichloroethylene	75-35-4	0.025 and meet Section 728.148 standards[8]	6.0 and meet Section 728.148 standards[8]

D030[9]

Wastes that are TC for 2,4-Dinitrotoluene based on the TCLP in SW-846 Method 1311 ~~and that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems only~~.

2,4-Dinitrotoluene	121-14-2	0.32 and meet Section 728.148 standards[8]	140 and meet Section 728.148 standards[8]

D031[9]

Wastes that are TC for Heptachlor based on the TCLP in SW-846 Method 1311 ~~and that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems only~~.

Heptachlor	76-44-8	0.0012 and meet Section 728.148 standards[8]	0.066 and meet Section 728.148 standards[8]
Heptachlor epoxide	1024-57-3	0.016 and meet Section 728.148 standards[8]	0.066 and meet Section 728.148 standards[8]

D032[9]

Wastes that are TC for Hexachlorobenzene based on the TCLP in SW-846 Method 1311~~ and that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems only~~.

Hexachlorobenzene	118-74-1	0.055 and meet Section 728.148 standards[8]	10 and meet Section 728.148 standards[8]

D033[9]
Wastes that are TC for Hexachlorobutadiene based on the TCLP in SW-846 Method 1311~~ and that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems only~~.

Hexachlorobutadiene	87-68-3	0.055 and meet Section 728.148 standards[8]	5.6 and meet Section 728.148 standards[8]

D034[9]
Wastes that are TC for Hexachloroethane based on the TCLP in SW-846 Method 1311 ~~and that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems only~~.

Hexachloroethane	67-72-1	0.055 and meet Section 728.148 standards[8]	30 and meet Section 728.148 standards[8]

D035[9]
Wastes that are TC for Methyl ethyl ketone based on the TCLP in SW-846 Method 1311~~ and that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems only~~.

Methyl ethyl ketone	78-93-3	0.28 and meet Section 728.148 standards[8]	36 and meet Section 728.148 standards[8]

D036[9]
Wastes that are TC for Nitrobenzene based on the TCLP in SW-846 Method 1311~~ and that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems only~~.

Nitrobenzene	98-95-3	0.068 and meet Section 728.148 standards[8]	14 and meet Section 728.148 standards[8]

D037[9]
Wastes that are TC for Pentachlorophenol based on the TCLP in SW-846 Method 1311 ~~and that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems only~~.

Pentachlorophenol	87-86-5	0.089 and meet Section 728.148	7.4 and meet Section 728.148

		standards[8]	standards[8]

D038[9]
Wastes that are TC for Pyridine based on the TCLP in SW-846 Method 1311 ~~and that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems only~~.

Pyridine	110-86-1	0.014 and meet Section 728.148 standards[8]	16 and meet Section 728.148 standards[8]

D039[9]
Wastes that are TC for Tetrachloroethylene based on the TCLP in SW-846 Method 1311 ~~and that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems only~~.

Tetrachloroethylene	127-18-4	0.056 and meet Section 728.148 standards[8]	6.0 and meet Section 728.148 standards[8]

D040[9]
Wastes that are TC for Trichloroethylene based on the TCLP in SW-846 Method 1311 ~~and that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems only~~.

Trichloroethylene	79-01-6	0.054 and meet Section 728.148 standards[8]	6.0 and meet Section 728.148 standards[8]

D041[9]
Wastes that are TC for 2,4,5-Trichlorophenol based on the TCLP in SW-846 Method 1311 ~~and that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems only~~.

2,4,5-Trichlorophenol	95-95-4	0.18 and meet Section 728.148 standards[8]	7.4 and meet Section 728.148 standards[8]

D042[9]
Wastes that are TC for 2,4,6-Trichlorophenol based on the TCLP in SW-846 Method 1311 ~~and that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems only~~.

2,4,6-Trichlorophenol	88-06-2	0.035 and meet Section 728.148 standards[8]	7.4 and meet Section 728.148 standards[8]

D043[9]
Wastes that are TC for Vinyl chloride based on the TCLP in SW-846 Method 1311 ~~and that are managed in non-CWA or non-CWA equivalent or non-Class I SDWA systems only~~.

Vinyl chloride	75-01-4	0.27 and meet Section 728.148 standards[8]	6.0 and meet Section 728.148 standards[8]

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

Acetone	67-64-1	0.28	160
Benzene	71-43-2	0.14	10
n-Butyl alcohol	71-36-3	5.6	2.6
Carbon disulfide	75-15-0	3.8	NA
Carbon tetrachloride	56-23-5	0.057	6.0
Chlorobenzene	108-90-7	0.057	6.0
o-Cresol	95-48-7	0.11	5.6
m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)	1319-77-3	0.88	11.2
Cyclohexanone	108-94-1	0.36	NA
o-Dichlorobenzene	95-50-1	0.088	6.0
Ethyl acetate	141-78-6	0.34	33
Ethyl benzene	100-41-4	0.057	10
Ethyl ether	60-29-7	0.12	160
Isobutyl alcohol	78-83-1	5.6	170
Methanol	67-56-1	5.6	NA
Methylene chloride	75-9-2	0.089	30
Methyl ethyl ketone	78-93-3	0.28	36
Methyl isobutyl ketone	108-10-1	0.14	33
Nitrobenzene	98-95-3	0.068	14
Pyridine	110-86-1	0.014	16
Tetrachloroethylene	127-18-4	0.056	6.0

Toluene	108-88-3	0.080	10
1,1,1-Trichloroethane	71-55-6	0.054	6.0
1,1,2-Trichloroethane	79-00-5	0.054	6.0
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.057	30
Trichloroethylene	79-01-6	0.054	6.0
Trichloromonofluoromethane	75-69-4	0.020	30
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30

F001, F002, F003, F004 & F005
F003 and F005 solvent wastes that contain any combination of one or more of the following three solvents as the only listed F001 through F005 solvents: carbon disulfide, cyclohexanone, or methanol. (Formerly Section 728.141(c))

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

F001, F002, F003, F004 & F005
F005 solvent waste containing 2-Nitropropane as the only listed F001 through F005 solvent.

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

F001, F002, F003, F004 & F005
F005 solvent waste containing 2-Ethoxyethanol as the only listed F001 through F005 solvent.

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

F006
Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning or stripping associated with tin, zinc, and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.

Cadmium	7440-43-9	0.69	0.19 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Cyanides (Total)[7]	57-12-5	1.2	590
Cyanides (Amenable)[7]	57-12-5	0.86	30
Lead	7439-92-1	0.69	0.37 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 mg/l TCLP

Silver	7440-22-4	NA	0.30 mg/l TCLP

F007
Spent cyanide plating bath solutions from electroplating operations.

Cadmium	7440-43-9	NA	0.19 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Cyanides (Total)[7]	57-12-5	1.2	590
Cyanides (Amenable)[7]	57-12-5	0.86	30
Lead	7439-92-1	0.69	0.37 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 mg/l TCLP
Silver	7440-22-4	NA	0.30 mg/l TCLP

F008
Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.

Cadmium	7440-43-9	NA	0.19 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Cyanides (Total)[7]	57-12-5	1.2	590
Cyanides (Amenable)[7]	57-12-5	0.86	30
Lead	7439-92-1	0.69	0.37 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 mg/l TCLP
Silver	7440-22-4	NA	0.30 mg/l TCLP

F009
Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.

Cadmium	7440-43-9	NA	0.19 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Cyanides (Total)[7]	57-12-5	1.2	590
Cyanides (Amenable)[7]	57-12-5	0.86	30
Lead	7439-92-1	0.69	0.37 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 mg/l TCLP
Silver	7440-22-4	NA	0.30 mg/l TCLP

F010
Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.

Cyanides (Total)[7]	57-12-5	1.2	590
Cyanides (Amenable)[7]	57-12-5	~~0.88~~0.86	NA

F011
Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.

Cadmium	7440-43-9	NA	0.19 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Cyanides (Total)[7]	57-12-5	1.2	590

Cyanides (Amenable)[7]	57-12-5	0.86	30
Lead	7439-92-1	0.69	0.37 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 mg/l TCLP
Silver	7440-22-4	NA	0.30 mg/l TCLP

F012
Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.

Cadmium	7440-43-9	NA	0.19 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Cyanides (Total)[7]	57-12-5	1.2	590
Cyanides (Amenable)[7]	57-12-5	0.86	30
Lead	7439-92-1	0.69	0.37 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 mg/l TCLP
Silver	7440-22-4	NA	0.30 mg/l TCLP

F019
Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process.

Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Cyanides (Total)[7]	57-12-5	1.2	590
Cyanides (Amenable)[7]	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 ~~W~~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)	NA	0.000063	0.001
PeCDDs (All Pentachloro-dibenzo-p-dioxins)	NA	0.000063	0.001

PeCDFs (All Pentachloro-dibenzofurans)	NA	0.000035	0.001
Pentachlorophenol	87-86-5	0.089	7.4
TCDDs (All Tetrachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
TCDFs (All Tetrachloro-dibenzofurans)	NA	0.000063	0.001
2,4,5-Trichlorophenol	95-95-4	0.18	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
~~Pentachlorophenol~~	~~87-86-5~~	~~0.089~~	~~7.4~~

F024

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

All F024 wastes	NA	CMBST	CMBST
2-Chloro-1,3-butadiene	126-99-8	0.057	0.28
3-Chloropropylene	107-05-1	0.036	30
1,1-Dichloroethane	75-34-3	0.059	6.0
1,2-Dichloroethane	107-06-2	0.21	6.0
1,2-Dichloropropane	78-87-5	0.85	18
cis-1,3-Dichloropropylene	10061-01-5	0.036	18
trans-1,3-Dichloropropylene	10061-02-6	0.036	18
bis(2-Ethylhexyl)phthalate	117-81-7	0.28	28
Hexachloroethane	67-72-1	0.055	30
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 mg/l TCLP

F025

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

Carbon tetrachloride	56-23-5	0.057	6.0
Chloroform	67-66-3	0.046	6.0
1,2-Dichloroethane	107-06-2	0.21	6.0
1,1-Dichloroethylene	75-35-4	0.025	6.0
Methylene chloride	75-9-2	0.089	30
1,1,2-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 contianing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.)

HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
Pentachlorophenol	87-86-5	0.089	7.4
TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
2,4,5-Trichlorophenol	95-95-4	0.18	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
~~Pentachlorophenol~~	~~87-86-5~~	~~0.089~~	~~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)	NA	0.000063	0.001
PeCDDs (All Pentachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
PeCDFs (All Pentachloro-dibenzofurans)	NA	0.000035	0.001
Pentachlorophenol	87-86-5	0.089	7.4
TCDDs (All Tetrachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
TCDFs (All Tetrachloro-dibenzofurans)	NA	0.000063	0.001
2,4,5-Trichlorophenol	95-95-4	0.18	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
~~Pentachlorophenol~~	~~87-86-5~~	~~0.089~~	~~7.4~~

~~F024~~

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

~~All F024 wastes~~	~~NA~~	~~INCIN~~	~~INCIN~~
~~2-Chloro-1,3-butadiene~~	~~126-99-8~~	~~0.057~~	~~0.28~~
~~3-Chloropropylene~~	~~107-05-1~~	~~0.036~~	~~30~~
~~1,1-Dichloroethane~~	~~75-34-3~~	~~0.059~~	~~6.0~~
~~1,2-Dichloroethane~~	~~107-06-2~~	~~0.21~~	~~6.0~~
~~1,2-Dichloropropane~~	~~78-87-5~~	~~0.85~~	~~18~~
~~cis-1,3-Dichloropropylene~~	~~10061-01-5~~	~~0.036~~	~~18~~
~~trans-1,3-Dichloropropylene~~	~~10061-02-6~~	~~0.036~~	~~18~~
~~bis(2-Ethylhexyl) phthalate~~	~~117-81-7~~	~~0.28~~	~~28~~
~~Hexachloroethane~~	~~67-72-1~~	~~0.055~~	~~30~~
~~Chromium (Total)~~	~~7440-47-3~~	~~2.77~~	~~0.86 mg/l TCLP~~
~~Nickel~~	~~7440-02-0~~	~~3.98~~	~~5.0 mg/l TCLP~~

~~F025~~

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

~~F025 - Light Ends Subcategory~~

~~Carbon tetrachloride~~	~~56-23-6~~	~~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 or Aids and Desiccants Subcategory~~

~~Carbon tetrachloride~~	~~56-23-5~~	~~0.067~~	~~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~~

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 agressive 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 agressive 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	0.86 mg/l TCLP
Cyanides (Total)[7]	57-12-5	1.2	590
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	5.0 mg/l TCLP

F038

Petroleum refinery secondary (emulsified) oil/water/solids separation sludge or float generated from the physical or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air floatation (IAF) units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in agressive 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 agressive biological units) and F037, K048, and K051 are not included in this listing.

Benzene	71-43-2	0.14	10
Benzo(a)pyrene	50-32-8	0.061	3.4
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Chrysene	218-01-9	0.059	3.4
Di-n-butyl phthalate	84-74-2	0.057	28
Ethylbenzene	100-41-4	0.057	10
Fluorene	86-73-7	0.059	NA
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyrene	129-00-0	0.067	8.2
Toluene	108-88-3	0.080	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP

Cyanides (Total)[7]	57-12-5	1.2	590
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	5.0 mg/l TCLP

F039

Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under ~~728.~~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
Anthracene	120-12-7	0.059	3.4
Aramite	140-57-8	0.36	NA
alpha-BHC	319-84-6	0.00014	0.066
beta-BHC	319-85-7	0.00014	0.066
delta-BHC	319-86-8	0.023	0.066
gamma-BHC	58-89-9	0.0017	0.066
Benzene	71-43-2	0.14	10
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
Benzo(a)pyrene	50-32-8	0.061	3.4
Bromodichloromethane	75-27-4	0.35	15
Methyl bromide (Bromo-methane)	74-83-9	0.11	15
4-Bromophenyl phenyl ether	101-55-3	0.055	15
n-Butyl alcohol	71-36-3	5.6	2.6
Butyl benzyl phthalate	85-68-7	0.017	28
2-sec-Butyl-4,6-dinitro-phenol (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 gamma isomers)	57-74-9	0.0033	0.26
p-Chloroaniline	106-47-8	0.46	16
Chlorobenzene	108-90-7	0.057	6.0
Chlorobenzilate	510-15-6	0.10	NA
2-Chloro-1,3-butadiene	126-99-8	0.057	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	~~108-60-1~~39638-32-9	0.055	7.2
p-Chloro-m-cresol	59-50-7	0.018	14
Chloromethane (Methyl chloride)	74-87-3	0.19	30
2-Chloronaphthalene	91-58-7	0.055	5.6
2-Chlorophenol	95-57-8	0.044	5.7
3-Chloropropylene	107-05-1	0.036	30
Chrysene	218-01-9	0.059	3.4
o-Cresol	95-48-7	0.11	5.6
m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
Cyclohexanone	108-94-1	0.36	NA
1,2-Dibromo-3-chloro-propane	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-Dichloro-phenoxyacetic acid)	94-75-7	0.72	10
o,p'-DDD	53-19-0	0.023	0.087
p,p'-DDD	72-54-8	0.023	0.087
o,p'-DDE	3424-82-6	0.031	0.087
p,p'-DDE	72-55-9	0.031	0.087
o,p'-DDT	789-02-6	0.0039	0.087
p,p'-DDT	50-29-3	0.0039	0.087
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
Dibenz(a,e)pyrene	192-65-4	0.061	NA

m-Dichlorobenzene	541-73-1	0.036	6.0
o-Dichlorobenzene	95-50-1	0.088	6.0
p-Dichlorobenzene	106-46-7	0.090	6.0
Dichlorodifluoromethane	75-71-8	0.23	7.2
1,1-Dichloroethane	75-34-3	0.059	6.0
1,2-Dichloroethane	107-06-2	0.21	6.0
1,1-Dichloroethylene	75-35-4	0.025	6.0
trans-1,2-Dichloroethylene	156-60-5	0.054	30
2,4-Dichlorophenol	120-83-2	0.044	14
2,6-Dichlorophenol	87-65-0	0.044	14
1,2-Dichloropropane	78-87-5	0.85	18
cis-1,3-Dichloropropylene	10061-01-5	0.036	18
trans-1,3-Dichloropropylene	10061-02-6	0.036	18
Dieldrin	60-57-1	0.017	0.13
Diethyl phthalate	84-66-2	0.20	28
2-4-Dimethyl phenol	105-67-9	0.036	14
Dimethyl phthalate	131-11-3	0.047	28
Di-n-butyl phthalate	84-74-2	0.057	28
1,4-Dinitrobenzene	100-25-4	0.32	2.3
4,6-Dinitro-o-cresol	534-52-1	0.28	160
2,4-Dinitrophenol	51-28-5	0.12	160
2,4-Dinitrotoluene	121-14-2	0.32	140
2,6-Dinitrotoluene	606-20-2	0.55	28
Di-n-octyl phthalate	117-84-0	0.017	28
Di-n-propylnitrosamine	621-64-7	0.40	14
1,4-Dioxane	123-91-1	~~NA~~12.0	170
Diphenylamine (difficult to distinguish from diphenyl-nitrosamine)	122-39-4	0.92	~~13~~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	~~1-31-07-8~~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 (Propane-nitrile)	107-12-0	0.24	360
Ethyl benzene	100-41-4	0.057	10
Ethyl ether	60-29-7	0.12	160

bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Ethyl methacrylate	97-63-2	0.14	160
Ethylene oxide	75-21-8	0.12	NA
Famphur	52-85-7	0.017	15
Fluoranthene	206-44-0	0.068	3.4
Fluorene	86-73-7	0.059	3.4
Heptachlor	76-44-8	0.0012	0.066
Heptachlor epoxide	1024-57-3	0.016	0.066
Hexachlorobenzene	118-74-1	0.055	10
Hexachlorobutadiene	87-68-3	0.055	5.6
Hexachlorocyclopentadiene	77-47-4	0.057	2.4
HxCDDs (All Hexachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachloro-dibenzofurans)	NA	0.000063	0.001
Hexachloroethane	67-72-1	0.055	30
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
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)	NA	0.000063	0.001
~~PcCDFs~~PeCDFs (All Penta-chlorodibenzofurans)	NA	0.000035	0.001
Pentachloronitrobenzene	82-68-8	0.055	4.8
Pentachlorophenol	87-86-5	0.089	7.4
Phenacetin	62-44-2	0.081	16
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Phorate	298-02-2	0.021	4.6
Phthalic anhydride	85-44-9	0.055	NA
Pronamide	23950-58-5	0.093	1.5
Pyrene	129-00-0	0.067	8.2
Pyridine	110-86-1	0.014	16
Safrole	94-59-7	0.081	22
Silvex (2,4,5-TP)	93-72-1	0.72	7.9
2,4,5-T	93-76-5	0.72	7.9
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
TCDDs (All Tetrachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
TCDFs (All Tetrachloro-dibenzofurans)	NA	0.000063	0.001
1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
Toluene	108-88-3	0.080	10
Toxaphene	8001-35-2	0.0095	2.6
Bromoform (Tribromo-methane)	75-25-2	0.63	15
1,2,4-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 or o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Antimony	7440-36-0	1.9	2.1 mg/l TCLP
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Barium	7440-39-3	1.2	7.6 mg/l TCLP
Beryllium	7440-41-7	0.82	NA
Cadmium	7440-43-9	0.69	0.19 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Cyanides (Total)[7]	57-12-5	1.2	590
Cyanides (Amenable)[7]	57-12-5	0.86	NA
Fluoride	16964-48-8	35	NA
Lead	7439-92-1	0.69	0.37 mg/l TCLP
Mercury	7439-97-6	0.15	0.025 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 mg/l TCLP
Selenium	7782-49-2	0.82	0.16 mg/l TCLP
Silver	7440-22-4	0.43	0.30 mg/l TCLP
Sulfide	8496-25-8	14	NA
Thallium	7440-28-0	1.4	NA
Vanadium	7440-62-2	4.3	NA

K001

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

Naphthalene	91-20-3	0.059	5.6
Pentachlorophenol	87-86-5	0.089	7.4
Phenanthrene	85-01-8	0.059	5.6
Pyrene	129-00-0	0.067	8.2
Toluene	108-88-3	0.080	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Lead	7439-92-1	0.69~~0.37 mg/l TCLP~~	0.37 mg/l TCLP

K002

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

Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Lead	7439-92-1	0.69	0.37 mg/l TCLP

K003

Wastewater treatment sludge from the production of molybdate orange pigments.

Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Lead	7439-92-1	0.69	0.37 mg/l TCLP

K004

Wastewater treatment sludge from the production of zinc yellow pigments.

Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Lead	7439-92-1	0.69	0.37 mg/l TCLP

K005

Wastewater treatment sludge from the production of chrome green pigments.

Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Lead	7439-92-1	0.69	0.37 mg/l TCLP
Cyanides (Total)[7]	57-12-5	1.2~~5~~	5~~9~~0

K006

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

Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Lead	7439-92-1	0.69	0.37 mg/l TCLP

K006

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

Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Lead	7439-92-1	0.69	NA

K007

Wastewater treatment sludge from the production of iron blue pigments.

Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Lead	7439-92-1	0.69	0.37 mg/l TCLP
Cyanides (Total)[7]	57-12-5	1.2~~5~~	5~~9~~0

K008

Oven residue from the production of chrome oxide green pigments.

Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Lead	7439-92-1	0.69	0.37 mg/l TCLP

K009

Distillation bottoms from the production of acetaldehyde from ethylene.

Chloroform	67-66-3	0.046	6.0

K010

Distillation side cuts from the production of acetaldehyde from ethylene.

Chloroform	67-66-3	0.046	6.0

K011

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

Acetonitrile	75-05-8	5.6	~~1.8~~38
Acrylonitrile	107-13-1	0.24	~~8~~4
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	~~1.8~~38
Acrylonitrile	107-13-1	0.24	~~8~~4
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	~~1.8~~38
Acrylonitrile	107-13-1	0.24	~~8~~4
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	0.86 mg/l TCLP
Nickel	7440-02-0	3.98	~~8~~5.0 mg/l TCLP

K016

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

Hexachlorobenzene	118-74-1	0.055	10
Hexachlorobutadiene	87-68-3	0.055	5.6
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	2.1 mg/l TCLP

~~K021~~

~~Aqueous spent antimony catalyst waste from fluoromethanes production.~~

~~Carbon tetrachloride~~	~~56-23-5~~	~~0.057~~	~~6.0~~
~~Chloroform~~	~~67-66-3~~	~~0.046~~	~~6.0~~
~~Antimony~~	~~7440-36-0~~	~~1.9~~	~~2.1 mg/l TCLP~~

K022

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

Toluene	108-88-3	0.080	10
Acetophenone	96-86-2	0.010	9.7
Diphenylamine (difficult to distinguish from diphenyl-nitrosamine)	122-39-4	0.92	13
Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	13
Phenol	108-95-2	0.039	6.2
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 mg/l TCLP

K023

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

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

K024

Distillation bottoms from the production of phthalic anhydride from naphthalene.

Phthalic anhydride (measured as Phthalic acid	100-21-0	0.055	28

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

K025

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

NA	NA	LLEXT fb SSTRP fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST

K026

Stripping still tails from the production of methyl ethyl pyridines.

NA	NA	~~INCIN~~CMBST	~~INCIN~~CMBST

K027

Centrifuge and distillation residues from the toluene diisocyanate production.

NA	NA	CARBN; or ~~INCIN~~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	0.86 mg/l TCLP
Lead	7439-92-1	0.69	0.37 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 mg/l TCLP

K029

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

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

Vinyl chloride	75-01-4	0.27	6.0

K030
Column bodies or heavy ends from the combined production of trichloroethylene and perchloroethylene.

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

K031
By-product salts generated in the production of MSMA and cacodylic acid.

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

K032
Wastewater treatment sludge from the production of chlordane.

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

K033
Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.

Hexachlorocyclopentadiene	77-47-4	0.057	2.4

K034
Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.

Hexachlorocyclopentadiene	77-47-4	0.057	2.4

K035
Wastewater treatment sludges generated in the production of creosote.

Acenaphthene	83-32-9	NA	3.4
Anthracene	120-12-7	NA	3.4
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(a)pyrene	50-32-8	0.061	3.4
Chrysene	218-01-9	0.059	3.4

o-Cresol	95-48-7	0.11	5.6
m-Cresol (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
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 distillaiton in the production of disulfoton.

Disulfoton	298-04-4	0.017	6.2

K037
Wastewater treatment sludges from the production of disulfoton.

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

K038
Wastewater from the washing and stripping of phorate production.

Phorate	298-02-2	0.021	4.6

K039
Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate.

NA	NA	CARBN; or ~~INCIN~~CMBST	CMBST

K040
Wastewater treatment sludge from the production of phorate.

Phorate	298-02-2	0.021	4.6

K041
Wastewater treatment sludge from the production of toxaphene.

Toxaphene	8001-35-2	0.0095	2.6

K042

Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.

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

K043

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

2,4-Dichlorophenol	120-83-2	0.044	14
2,6-Dichlorophenol	187-65-0	0.044	14
2,4,5-Trichlorophenol	95-95-4	0.18	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
Pentachlorophenol	87-86-5	0.089	7.4
Tetrachloroethylene	127-18-4	0.056	6.0
HxCDDs (All Hexachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachloro-dibenzofurans)	NA	0.000063	0.001
PeCDDs (All Pentachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
PeCDFs (All Pentachloro-dibenzofurans)	NA	0.000035	0.001
TCDDs (All Tetrachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
TCDFs (All Tetrachloro-dibenzofurans)	NA	0.000063	0.001

K044

Wastewater treatment sludges from the manufacturing and processing of explosives.

NA	NA	DEACT	DEACT

K045

Spent carbon from the treatment of wastewater containing explosives.

NA	NA	DEACT	DEACT

K046

Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.

Lead	7439-92-1	0.69	0.37 mg/l TCLP

K047

Pink or red water from TNT operations.

NA	NA	DEACT	DEACT

K048

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

Benzene	71-43-2	0.14	10
Benzo(a)pyrene	50-32-8	0.061	3.4
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Chrysene	218-01-9	0.059	3.4
Di-n-butyl phthalate	84-74-2	0.057	28
Ethylbenzene	100-41-4	0.057	10
Fluorene	86-73-7	0.059	NA
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyrene	129-00-0	0.067	8.2
Toluene	108-88-33	0.080	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Cyanides (Total)[7]	57-12-5	1.2	590
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	5.0 mg/l TCLP

K049

Slop oil emulsion solids from the petroleum refining industry.

Anthracene	120-12-7	0.059	3.4
Benzene	71-43-2	0.14	10
Benzo(a)pyrene	50-32-8	0.061	3.4
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Carbon disulfide	75-15-0	3.8	NA
Chrysene	2218-01-9	0.059	3.4
2,4-Dimethylphenol	105-67-9	0.036	NA
Ethylbenzene	100-41-4	0.057	10
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyrene	129-00-0	0.067	8.2
Toluene	108-88-3	0.080	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Cyanides (Total)[7]	57-12-5	1.2	590
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Lead	7439-92-1	0.69	NA

Nickel	7440-02-0	NA	5.0 mg/l TCLP

K050
Heat exchanger bundle cleaning sludge from the petroleum refining industry.

Benzo(a)pyrene	50-32-8	0.061	3.4
Phenol	108-95-2	0.039	6.2
Cyanides (Total)[7]	57-12-5	1.2	590
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	5.0 mg/l TCLP

K051
API separator sludge from the petroleum refining industry.

Acenaphthene	83-32-9	0.059	NA
Anthracene	120-12-7	0.059	3.4
Benz(a)anthracene	56-55-3	0.059	3.4
Benzene	71-43-2	0.14	10
Benzo(a)pyrene	50-32-8	0.061	3.4
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Chrysene	2218-01-9	0.059	3.4
Di-n-butyl phthalate	105-67-9	0.057	28
Ethylbenzene	100-41-4	0.057	10
Fluorene	86-73-7	0.059	NA
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyrene	129-00-0	0.067	8.2
Toluene	108-88-3	0.08	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Cyanides (Total)[7]	57-12-5	1.2	590
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	5.0 mg/l TCLP

K052
Tank bottoms (leaded) from the petroleum refining industry.

Benzene	71-43-2	0.14	10
Benzo(a)pyrene	50-32-8	0.061	3.4
o-Cresol	95-48-7	0.11	5.6
m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
p-Cresol	106-44-5	0.77	5.6

(difficult to distinguish from m-cresol)			
2,4-Dimethylphenol	105-67-9	0.036	NA
Ethylbenzene	100-41-4	0.057	10
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Toluene	108-88-3	0.08	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Cyanides (Total)[7]	57-12-5	1.2	590
Lead	7439-92-1	0.69	NA
Nickel	7440-02-0	NA	5.0 mg/l TCLP

K060

Ammonia still lime sludge from coking operations.

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

K061

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

Antimony	7440-36-0	NA	2.1 mg/l TCLP
Arsenic	7440-38-2	NA	5.0 mg/l TCLP
Barium	7440-39-3	NA	7.6 mg/l TCLP
Beryllium	7440-41-7	NA	0.014 mg/l TCLP
Cadmium	7440-43-9	0.69	0.19 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Lead	7439-92-1	0.69	0.37 mg/l TCLP
Mercury	7439-97-6	NA	0.025 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 mg/l TCLP
Selenium	7782-49-2	NA	0.16 mg/l TCLP
Silver	7440-22-4	NA	0.30 mg/l TCLP
Thallium	~~NA~~7440-28-0	NA	0.078 mg/l TCLP
Zinc	7440-66-6	NA	5.3 mg/l TCLP

K062

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

Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Lead	7439-92-1	0.69	0.37 mg/l TCLP
Nickel	7440-02-0	3.98	NA

K069

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

Cadmium	7440-43-9	0.69	0.19 mg/l TCLP
Lead	7439-92-1	0.69	0.37 mg/l TCLP

K069

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

NA	NA	NA	RLEAD

K071

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

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

K071

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

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

K071

All K071 wastewaters.

Mercury	7439-97-6	0.15	NA

K073

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

Carbon tetrachloride	56-23-5	0.057	6.0
Chloroform	67-66-3	0.046	6.0
Hexachloroethane	67-72-1	0.055	30
Tetrachloroethylene	127-18-4	~~0.058~~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 diphenylamine)	86-30-6	0.92	13
Nitrobenzene	98-95-3	0.068	14
Phenol	108-95-2	0.039	6.2
Nickel	7440-02-0	3.98	5.0 mg/l TCLP

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

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

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	0.86 mg/l TCLP
Cyanides (Total)[7]	57-12-5	1.2	590
Lead	7439-92-1	0.69	0.37 mg/l TCLP

K087

Decanter tank tar sludge from coking operations.

Acenaphthylene	208-96-8	0.059	3.4
Benzene	71-43-2	0.14	10
Chrysene	218-01-9	0.059	3.4
Fluoranthene	206-44-0	0.068	3.4
~~Indeno~~(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
Naphthalene	91-20-3	0.059	5.6
Phenanthrene	85-01-8	0.059	5.6
Toluene	108-88-3	0.080	10
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Lead	7439-92-1	0.69	0.37 mg/l TCLP

K088

Spent potliners from primary aluminum reduction.

Acenaphthene	83-32-9	0.059	3.4
Anthracene	120-12-7	0.059	3.4
Benz(a)anthracene	56-55-3	0.059	3.4
Benzo(a)pyrene	50-32-8	0.061	3.4
Benzo(b)fluoranthene	205-99-2	0.11	6.8
Benzo(k)fluoranthene	207-08-9	0.11	6.8
Benzo(g,h,i)perylene	191-24-2	0.0055	1.8

Chrysene	218-01-9	0.059	3.4
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
Fluoranthene	206-44-0	0.068	3.4
Indeno(1,2,3-c,d)pyrene	193-39-5	0.0055	3.4
Phenanthrene	85-01-8	0.059	5.6
Pyrene	129-00-0	0.067	8.2
Antimony	7440-36-0	1.9	2.1 mg/l TCLP
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Barium	7440-39-3	1.2	7.6 mg/l TCLP
Beryllium	7440-41-7	0.82	0.014 mg/l TCLP
Cadmium	7440-43-9	0.69	0.19 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Lead	7439-92-1	0.69	0.37 mg/l TCLP
Mercury	7439-97-6	0.15	0.025 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 mg/l TCLP
Selenium	7782-49-2	0.82	0.16 mg/l TCLP
Silver	7440-22-4	0.43	0.30 mg/l TCLP
Cyanide (Total)[7]	57-12-5	1.2	590
Cyanide (Amenable)[7]	57-12-5	0.86	30
Fluoride	16984-48-8	35	48 mg/l TCLP

K093

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

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

K094

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

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

K095

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

Hexachloroethane	67-72-1	0.055	30
Pentachloroethane	76-01-7	0.055	6.0

1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
1,1,2-Trichloroethane	79-00-5	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0

K096

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

m-Dichlorobenzene	541-73-1	0.036	6.0
Pentachloroethane	76-01-7	0.055	6.0
1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
1,2,4-Trichlorobenzene	120-82-1	0.055	19
1,1,2-Trichloroethane	79-00-5	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0

K097

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

Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
Heptachlor	76-44-8	0.0012	0.066
Heptachlor epoxide	1024-57-3	0.016	~~0.068~~0.066
Hexachlorocyclopentadiene	77-47-4	0.057	2.4

K098

Untreated process wastewater from the production of toxaphene.

Toxaphene	8001-35-2	0.0095	2.6

K099

Untreated wastewater from the production of 2,4-D.

2,4-Dichlorophenoxyacetic acid	94-75-7	0.72	10
HxCDDs (All Hexachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachloro-dibenzofurans)	NA	0.000063	0.001
PeCDDs (All Pentachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
PeCDFs (All Pentachloro-dibenzofurans)	NA	0.000035	0.001
TCDDs (All Tetrachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
TCDFs (All Tetrachloro-	NA	0.000063	0.001

dibenzofurans)

K100
Waste leaching solution from acid leaching of emission control dust or sludge from secondary lead smelting.

Cadmium	7440-43-9	0.69	0.19 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Lead	7439-92-1	0.69	0.37 mg/l TCLP

K101
Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.

o-Nitroaniline	88-74-4	0.27	14
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Cadmium	7440-43-9	0.69	NA
Lead	7439-92-1	0.69	NA
Mercury	7439-97-6	0.15	NA

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

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

K103
Process residues from aniline extraction from the production of aniline.

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

K104
Combined wastewater streams generated from nitrobenzene or aniline production.

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

K105

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

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

K106

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

Mercury	7439-97-6	NA	RMERC

K106

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

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

K106

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

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

K106

All K106 wastewaters.

Mercury	7439-97-6	0.15	NA

K107

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

NA	NA	~~INCIN~~CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	~~INCIN~~CMBST

K108

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

NA	NA	~~INCIN~~CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	~~INCIN~~CMBST

K109

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

NA	NA	~~INCIN~~CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	~~INCIN~~CMBST

K110

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

NA	NA	~~INCIN~~CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	~~INCIN~~CMBST

K111

Product washwaters from the production of dinitrotoluene via nitration of toluene

2,4-Dinitrotoluene	121-1-1	0.32	140
2,6-Dinitrotoluene	606-20-2	0.55	28

K112

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

NA	NA	~~INCIN~~CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	~~INCIN~~CMBST

K113

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

NA	NA	CARBN; or	CMBST

		~~INCIN~~CMBST	

K114
Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.

NA	NA	CARBN; or ~~INCIN~~CMBST	CMBST

K115
Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.

Nickel	7440-02-0	3.98	5.0 mg/l TCLP
NA	NA	CARBN; or ~~INCIN~~CMBST	CMBST

K116
Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.

NA	NA	CARBN; or ~~INCIN~~CMBST	CMBST

K117
Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.

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

K118
Spent absorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.

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

K123
Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salts.

NA	NA	~~INCIN~~CMBST; or CHOXD fb (BIODG or	~~INCIN~~CMBST

		CARBN)	

K124
Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts.

NA	NA	~~INCIN~~CMBST; or CHOXD fb (BIODG or CARBN)	~~INCIN~~CMBST

K125
Filtration, evaporation, and centrifugation solids from the production of ethylenebis-dithiocarbamic acid and its salts.

NA	NA	~~INCIN~~CMBST; or CHOXD fb (BIODG or CARBN)	~~INCIN~~CMBST

K126
Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts.

NA	NA	~~INCIN~~CMBST; or CHOXD fb (BIODG or CARBN)	~~INCIN~~CMBST

K131
Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide.

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

K132
Spent absorbent and wastewater separator solids from the production of methyl bromide.

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

K136
Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.

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

K141
Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke or the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank tar sludge from coking operations).

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

K142
Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal.

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

K143
Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal.

Benzene	71-43-2	0.14	10
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	~~6.2~~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. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propyl-n-butylcarbamate.)[10]

Acetonitrile	75-05-8	5.6	38
Acetophenone	96-86-2	0.010	9.7
Aniline	62-53-3	0.81	14
Benomyl	17804-35-2	0.056	1.4
Benzene	71-43-2	0.14	10
Carbaryl	63-25-21	0.006	0.14
Carbenzadim	10605-21-7	0.056	1.4
Carbofuran	1563-66-2	0.006	0.14
Carbosulfan	55285-14-8	0.028	1.4
Chlorobenzene	108-90-7	0.057	6.0
Chloroform	67-66-3	0.046	6.0
o-Dichlorobenzene	95-50-1	0.088	6.0
Methomyl	16752-77-5	0.028	0.14
Methylene chloride	75-09-2	0.089	30
Methyl ethyl ketone	78-93-3	0.28	36
Naphthalene	91-20-3	0.059	5.6
Phenol	108-95-2	0.039	6.2
Pyridine	110-86-1	0.014	16
Toluene	108-88-3	0.080	10
Triethylamine	121-44-8	0.081	1.5

K157
Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propyl-n-butylcarbamate.)[10]

Carbon tetrachloride	56-23-5	0.057	6.0
Chloroform	67-66-3	0.046	6.0
Chloromethane	74-87-3	0.19	30
Methomyl	16752-77-5	0.028	0.14
Methylene chloride	75-09-2	0.089	30
Methyl ethyl ketone	78-93-3	0.28	36
o-Phenylenediamine	95-54-5	0.056	5.6
Pyridine	110-86-1	0.014	16
Triethylamine	121-44-8	0.081	1.5

K158
Baghouse dusts and filter/separation solids from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propyl-n-butylcarbamate.)[10]

Benomyl	17804-35-2	0.056	1.4
Benzene	71-43-2	0.14	10
Carbenzadim	10605-21-7	0.056	1.4
Carbofuran	1563-66-2	0.006	0.14
Carbosulfan	55285-14-8	0.028	1.4
Chloroform	67-66-3	0.046	6.0
Methylene chloride	75-09-2	0.089	30
Phenol	108-95-2	0.039	6.2

K159
Organics from the treatment of thiocarbamate wastes.[10]

Benzene	71-43-2	0.14	10
Butylate	2008-41-5	0.042	1.4
EPTC (Eptam)	759-94-4	0.042	1.4
Molinate	2212-67-1	0.042	1.4
Pebulate	1114-71-2	0.042	1.4
Vernolate	1929-77-7	0.042	1.4

K161
Purification solids (including filtration, evaporation, and centrifugation solids), baghouse dust and floor sweepings from the production of dithiocarbamate acids and their salts.[10]

Antimony	7440-36-0	1.9	2.1 mg/l TCLP
Arsenic	7440-38-2	1.9	5.0 mg/l TCLP
Carbon disulfide	75-15-0	3.8	4.8 mg/l TCLP
Dithiocarbamates (total)	NA	0.028	28
Lead	7439-92-1	0.69	0.37 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 mg/l TCLP
Selenium	7782-49-2	0.82	0.16 mg/l TCLP

P001
Warfarin, & salts, when present at concentrations greater than 0.3%

Warfarin	81-81-2	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	CMBST
P002 1-Acetyl-2-thiourea			
1-Acetyl-2-thiourea	591-08-2	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
P003 Acrolein			
Acrolein	~~107-02-6~~107-02-8	0.29	CMBST
P004 Aldrin			
Aldrin	309-00-2	0.021	~~0.068~~0.066
P005 Allyl alcohol			
Allyl alcohol	107-18-6	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	CMBST
P006 Aluminum phosphide			
Aluminum phosphide	~~20859-73-6~~20859-73-8	CHOXD; CHRED; or ~~INCIN~~CMBST	CHOXD; CHRED; or ~~INCIN~~CMBST
P007 5-Aminomethyl-3-isoxazolol			
5-Aminomethyl-3-isoxazolol	2763-96-4	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
P008 4-Aminopyridine			
4-Aminopyridine	504-24-5	(WETOX or CHOXD) fb	~~INCIN~~CMBST

		CARBN; or ~~INCIN~~CMBST	
P009			
Ammonium picrate			
Ammonium picrate	131-74-8	CHOXD; CHRED; CARBN; BIODG; or ~~INCIN~~CMBST	CHOXD; CHRED; or CMBST
P010			
Arsenic acid			
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
P011			
Arsenic pentoxide			
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
P012			
Arsenic trioxide			
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
P013			
Barium cyanide			
Barium	7440-39-3	NA	7.6 mg/l TCLP
Cyanides (Total)[7]	57-12-5	1.2	590
Cyanides (Amenable)[7]	57-12-5	0.86	30
P014			
Thiophenol (Benzene thiol)			
Thiophenol (Benzene thiol)	108-98-5	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~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	~~INCIN~~CMBST

		CARBN; or ~~INCIN~~CMBST	
P017			
Bromoacetone			
Bromoacetone	598-31-2	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
P018			
Brucine			
Brucine	357-57-3	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
P020			
2-sec-Butyl-4,6-dinitrophenol (Dinoseb)			
2-sec-Butyl-4,6-dinitro-phenol (Dinoseb)	88-85-7	0.066	2.5
P021			
Calcium cyanide			
Cyanides (Total)[7]	57-12-5	1.2	590
Cyanides (Amenable)[7]	57-12-5	0.86	30
P022			
Carbon disulfide			
Carbon disulfide	75-15-0	3.8	~~INCIN~~CMBST
Carbon disulfide; alternate[6] standard for nonwastewaters only	75-15-0	NA	4.8 mg/l TCLP
P023			
Chloroacetaldehyde			
Chloroacetaldehyde	107-20-0	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~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 ~~INCIN~~CMBST	~~INCIN~~CMBST
P027			
3-Chloropropionitrile			
3-Chloropropionitrile	542-76-7	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
P028			
Benzyl chloride			
Benzyl chloride	100-44-7	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
P029			
Copper cyanide			
Cyanides (Total)[7]	57-12-5	1.2	590
Cyanides (Amenable)[7]	57-12-5	0.86	30
P030			
Cyanides (soluble salts and complexes)			
Cyanides (Total)[7]	57-12-5	1.2	590
Cyanides (Amenable)[7]	57-12-5	0.86	30
P031			
Cyanogen			
Cyanogen	460-19-5	CHOXD; WETOX; or ~~INCIN~~CMBST	CHOXD; WETOX; or ~~INCIN~~CMBST
P033			
Cyanogen chloride			
Cyanogen chloride	506-77-4	CHOXD; WETOX; or ~~INCIN~~CMBST	CHOXD; WETOX; or ~~INCIN~~CMBST
P034			
2-Cyclohexyl-4,6-dinitrophenol			

2-Cyclohexyl-4,6-dinitro-phenol	131-89-5	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~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 ~~INCIN~~CMBST	CMBST
P041			
Diethyl-p-nitrophenyl phosphate			
Diethyl-p-nitrophenyl phosphate	311-45-5	CARBN; or ~~INCIN~~CMBST	CMBST
P042			
Epinephrine			
Epinephrine	51-43-4	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
P043			
Diisopropylfluorophosphate (DFP)			
Diisopropylfluorophosphate (DFP)	55-91-4	CARBN; or ~~INCIN~~CMBST	CMBST
P044			
Dimethoate			

Dimethoate	60-51-5	CARBN; or ~~INCIN~~CMBST	CMBST
P045			
Thiofanox			
Thiofanox	39196-18-4	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
P046			
alpha,alpha-Dimethylphenethylamine			
alpha,alpha-Dimethyl-phenethylamine	122-09-8	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~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 ~~INCIN~~CMBST	~~INCIN~~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 ~~INCIN~~CMBST	~~INCIN~~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 ~~INCIN~~CMBST	~~INCIN~~CMBST
P056 Fluorine			
Fluoride (measured in wastewaters only)	16964-48-8	35	ADGAS fb NEUTR
P057 Fluoroacetamide			
Fluoroacetamide	640-19-7	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
P058 Fluoroacetic acid, sodium salt			
Fluoroacetic acid, sodium salt	62-74-8	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
P059 Heptachlor			
Heptachlor	76-44-8	0.0012	0.066
Heptachlor epoxide	1024-57-3	0.016	0.066
P060 Isodrin			
Isodrin	465-73-6	0.021	0.066
P062 Hexaethyl tetraphosphate			
Hexaethyl tetraphosphate	757-58-4	CARBN; or ~~INCIN~~CMBST	CMBST

P063			
Hydrogen cyanide			
Cyanides (Total)[7]	57-12-5	1.2	590
Cyanides (Amenable)[7]	57-12-5	0.86	30
P064			
Isocyanic acid, ethyl ester			
Isocyanic acid, ethyl ester	624-83-9	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
P065			
P065 (mercury fulminate) nonwastewaters, regardless of their total mercury ~~contant~~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 ~~INCIN~~CMBST	~~INCIN~~CMBST
P067			

2-Methyl-aziridine			
2-Methyl-aziridine	75-55-8	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
P068			
Methyl hydrazine			
Methyl hydrazine	60-34-4	CHOXD; CHRED; CARBN; BIODG; or ~~INCIN~~CMBST	CHOXD; CHRED, or CMBST
P069			
2-Methyllactonitrile			
2-Methyllactonitrile	75-86-5	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
P070			
Aldicarb			
Aldicarb	116-06-3	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~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 ~~INCIN~~CMBST	~~INCIN~~CMBST
P073			
Nickel carbonyl			
Nickel	7440-02-0	3.98	5.0 mg/l TCLP
P074			
Nickel cyanide			

Cyanides (Total)[7]	57-12-5	1.2	590
Cyanides (Amenable)[7]	57-12-5	0.86	30
Nickel	7440-02-0	3.98	5.0 mg/l TCLP
P075			
Nicotine and salts			
Nicotine and salts	54-11-5	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~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 ~~INCIN~~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 ~~INCIN~~CMBST	~~INCIN~~CMBST
P085			
Octamethylpyrophosphoramide			
Octamethylpyrophosphor-	152-16-9	CARBN; or	CMBST

amide		~~INCIN~~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 ~~INCIN~~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 ~~INCIN~~CMBST	~~INCIN~~CMBST
P094 Phorate			
Phorate	298-02-2	0.021	4.6
P095 Phosgene			
Phosgene	75-44-5	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
P096 Phosphine			
Phosphine	7803-51-2	CHOXD; CHRED; or ~~INCIN~~CMBST	CHOXD; CHRED; or ~~INCIN~~CMBST
P097 Famphur			
Famphur	52-85-7	0.017	15
P098 Potassium cyanide.			
Cyanides (Total)[7]	57-12-5	1.2	590
Cyanides (Amenable)[7]	57-12-5	0.86	30
P099 Potassium silver cyanide			
Cyanides (Total)[7]	57-12-5	1.2	590
Cyanides (Amenable)[7]	57-12-5	0.86	30
Silver	7440-22-4	0.43	0.30 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 ~~INCIN~~CMBST	CMBST
P103			
Selenourea			
Selenium	7782-49-2	0.82	0.16 mg/l TCLP
P104			
Silver cyanide			
Cyanides (Total)[7]	57-12-5	1.2	590
Cyanides (Amenable)[7]	57-12-5	0.86	30
Silver	7440-22-4	0.43	0.30 mg/l TCLP
P105			
Sodium azide			
Sodium azide	26628-22-8	CHOXD; CHRED; CARBN; BIODG; or ~~INCIN~~CMBST	CHOXD; CHRED; or CMBST
P106			
Sodium cyanide			
Cyanides (Total)[7]	57-12-5	1.2	590
Cyanides (Amenable)[7]	57-12-5	0.86	30
P108			
Strychnine and salts			
Strychnine and salts	57-24-9	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
P109			
Tetraethyldithiopyrophosphate			
Tetraethyldithiopyro-phosphate	3689-24-5	CARBN; or ~~INCIN~~CMBST	CMBST
P110			
Tetraethyl lead			
~~lead~~Lead	7439-92-1	0.69	0.37 mg/l TCLP

P111 Tetraethylpyrophosphate			
Tetraethylpyrophosphate	107-49-3	CARBN; or ~~INCIN~~CMBST	CMBST
P112 Tetranitromethane			
Tetranitromethane	509-14-8	CHOXD; CHRED; CARBN; BIODG; or ~~INCIN~~CMBST	CHOXD; CHRED; or CMBST
P113 Thallic oxide			
Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
P114 Thallium selenite			
Selenium	7782-49-2	0.82	0.16 mg/l TCLP
P115 Thallium (I) sulfate			
Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
P116 Thiosemicarbazide			
Thiosemicarbazide	79-19-6	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
P118 Trichloromethanethiol			
Trichloromethanethiol	75-70-7	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~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)[7]	57-12-5	1.2	590
Cyanides (Amenable)[7]	57-12-5	0.86	30
P122			
Zinc phosphide Zn_3P_2, when present at concentrations greater than 10%			
Zinc Phosphide	1314-84-7	CHOXD; CHRED; or ~~INCIN~~CMBST	CHOXD; CHRED; or ~~INCIN~~CMBST
P123			
Toxaphene			
Toxaphene	8001-35-2	0.0095	2.6
P127			
Carbofuran[10]			
Carbofuran	1563-66-2	0.006	0.14
P128			
Mexacarbate[10]			
Mexacarbate	315-18-4	0.056	1.4
P185			
Tirpate[10]			
Tirpate	26419-73-8	0.056	0.28
P188			
Physostigimine salicylate[10]			
Physostigmine salicylate	57-64-7	0.056	1.4
P189			
Carbosulfan[10]			
Carbosulfan	55285-14-8	0.028	1.4
P190			
Metolcarb[10]			
Metolcarb	1129-41-5	0.056	1.4
P191			

Dimetilan[10]			
Dimetilan	644-64-4	0.056	1.4
P192			
Isolan[10]			
Isolan	119-38-0	0.056	1.4
P194			
Oxamyl[10]			
Oxamyl	23135-22-0	0.056	0.28
P196			
Manganese dimethyldithiocarbamates (total)[10]			
Dithiocarbamates (total)	NA	0.028	28
P197			
Formparanate[10]			
Formparanate	17702-57-7	0.056	1.4
P198			
Formetanate hydrochloride[10]			
Formetanate hydrochloride	23422-53-9	0.056	1.4
P199			
Methiocarb[10]			
Methiocarb	2032-65-7	0.056	1.4
P201			
Promecarb[10]			
Promecarb	2631-37-0	0.056	1.4
P202			
m-Cumenyl methylcarbamate[10]			
m-Cumenyl methylcarbamate	64-00-6	0.056	1.4
P203			
Aldicarb sulfone[10]			
Aldicarb sulfone	1646-88-4	0.056	0.28
P204			
Physostigmine[10]			
Physostigmine	57-47-6	0.056	1.4
P205			
Ziram[10]			

Dithiocarbamates (total)	NA	0.028	28
U001			
Acetaldehyde			
Acetaldehyde	75-07-0	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	CMBST
U002			
Acetone			
Acetone	67-64-1	0.28	160
U003			
Acetonitrile			
Acetonitrile	75-05-8	5.6	~~INCIN~~CMBST
Acetonitrile; alternate[6] standard for nonwastewaters only	75-05-8	NA	~~1.8~~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 ~~INCIN~~CMBST	~~INCIN~~CMBST
U007			
Acrylamide			
Acrylamide	79-06-1	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
U008			
Acrylic acid			
Acrylic acid	79-10-7	(WETOX or	CMBST

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

		~~INCIN~~CMBST	
U017 Benzal chloride Benzal chloride	98-87-3	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~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 ~~INCIN~~CMBST	~~INCIN~~CMBST
U021 Benzidine Benzidine	92-87-5	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~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 ~~INCIN~~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 ~~INCIN~~CMBST	~~INCIN~~CMBST
U027 bis(2-Chloroisopropyl)ether bis(2-Chloroisopropyl)ether	~~108-60-1~~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	0.86 mg/l TCLP
U033 Carbon oxyfluoride Carbon oxyfluoride	353-50-4	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST

U034 Trichloroacetaldehyde (Chloral)			
Trichloroacetaldehyde (Chloral)	75-87-6	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
U035 Chlorambucil			
Chlorambucil	305-03-3	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
U036 Chlordane			
Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
U037 Chlorobenzene			
Chlorobenzene	108-90-7	0.057	6.0
U038 Chlorobenzilate			
Chlorobenzilate	510-15-6	0.10	~~INCIN~~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 ~~INCIN~~CMBST	~~INCIN~~CMBST
U042 2-Chloroethyl vinyl ether			
2-Chloroethyl vinyl ether	110-75-8	0.062	~~INCIN~~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 ~~INCIN~~CMBST	~~INCIN~~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 ~~INCIN~~CMBST	~~INCIN~~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	1330-20-7	0.32	30

concentrations)			
Lead	7439-92-1	0.69	0.37 mg/l TCLP
U052			
Cresols (Cresylic acid)			
o-Cresol	95-48-7	0.11	5.6
m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)	1319-77-3	0.88	11.2
U053			
Crotonaldehyde			
Crotonaldehyde	4170-30-3	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	CMBST
U055			
Cumene			
Cumene	98-82-8	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	CMBST
U056			
Cyclohexane			
Cyclohexane	110-82-7	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	CMBST
U057			
Cyclohexanone			
Cyclohexanone	108-94-1	0.36	CMBST
Cyclohexanone; alternate[6] standard for nonwastewaters only	108-94-1	NA	0.75 mg/l TCLP
U058			
Cyclophosphamide			
Cyclophosphamide	50-18-0	CARBN; or	CMBST

		~~INCIN~~CMBST	
U059 Daunomycin			
Daunomycin	20830-81-3	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~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 ~~INCIN~~CMBST	~~INCIN~~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 ~~INCIN~~CMBST	CMBST
U066 1,2-Dibromo-3-chloropropane			
1,2-Dibromo-3-chloro-propane	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 ~~INCIN~~CMBST	~~INCIN~~CMBST
U074 1,4-Dichloro-2-butene			
cis-1,4-Dichloro-2-butene	1476-11-5	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
trans-1,4-Dichloro-2-butene	764-41-0	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
U075			

Dichlorodifluoromethane			
Dichlorodifluoromethane	75-71-8	0.23	7.2
U076			
1,1-Dichloroethane			
1,1-Dichloroethane	75-34-3	0.059	6.0
U077			
1,2-Dichloroethane			
1,2-Dichloroethane	107-06-2	0.21	6.0
U078			
1,1-Dichloroethylene			
1,1-Dichloroethylene	75-35-4	0.025	6.0
U079			
1,2-Dichloroethylene			
trans-1,2-Dichloroethylene	156-60-5	0.054	30
U080			
Methylene chloride			
Methylene chloride	75-09-2	0.089	30
U081			
2,4-Dichlorophenol			
2,4-Dichlorophenol	120-83-2	0.044	14
U082			
2,6-Dichlorophenol			
2,6-Dichlorophenol	87-65-0	0.044	14
U083			
1,2-Dichloropropane			
1,2-Dichloropropane	78-87-5	0.85	18
U084			
1,3-Dichloropropylene			
cis-1,3-Dichloropropylene	10061-01-5	0.036	18
trans-1,3-Dichloropropylene	10061-02-6	0.036	18
U085			
1,2:3,4-Diepoxybutane			
1,2:3,4-Diepoxybutane	1464-53-5	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	CMBST

U086 N,N'-Diethylhydrazine			
N,N'-Diethylhydrazine	1615-80-1	CHOXD; CHRED; CARBN; BIODG; or ~~INCIN~~CMBST	CHOXD; CHRED; or CMBST
U087 O,O-Diethyl-S-methyldithiophosphate			
O,O-Diethyl-S-methyldithio-phosphate	3288-58-2	CARBN; or ~~INCIN~~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 ~~INCIN~~CMBST	CMBST
U090 Dihydrosafrole			
Dihydrosafrole	94-58-6	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	CMBST
U091 3,3'-Dimethoxybenzidine			
3,3'-Dimethoxybenzidine	119-90-4	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
U092 Dimethylamine			
Dimethylamine	124-40-3	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST

U093 p-Dimethylaminoazobenzene			
p-Dimethylaminoazobenzene	60-11-7	0.13	~~INCIN~~CMBST
U094 7,12-Dimethylbenz(a)anthracene			
7,12-Dimethylbenz(a)-anthracene	57-97-6	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	CMBST
U095 3,3'-Dimethylbenzidine			
3,3'-Dimethylbenzidine	119-93-7	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
U096 alpha, alpha-Dimethyl benzyl hydroperoxide			
alpha, alpha-Dimethyl benzyl hydroperoxide	80-15-9	CHOXD; CHRED; CARBN; BIODG; or ~~INCIN~~CMBST	CHOXD; CHRED; or CMBST
U097 Dimethylcarbamoyl chloride			
Dimethylcarbamoyl chloride	79-44-7	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
U098 1,1-Dimethylhydrazine			
1,1-Dimethylhydrazine	57-14-7	CHOXD; CHRED; CARBN; BIODG; or ~~INCIN~~CMBST	CHOXD; CHRED; or CMBST
U099 1,2-Dimethylhydrazine			
1,2-Dimethylhydrazine	540-73-8	CHOXD;	CHOXD;

		CHRED; CARBN; BIODG; or ~~INCIN~~CMBST	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 ~~INCIN~~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 ~~INCIN~~CMBST	CMBST
1,4-Dioxane; alternate[6] standard for nonwastewaters only	123-91-1	NA	170
U109 1,2-Diphenylhydrazine			

1,2-Diphenylhydrazine	122-66-7	CHOXD; CHRED; CARBN; BIODG; or ~~INCIN~~CMBST	CHOXD; CHRED; or CMBST
1,2-Diphenylhydrazine; alternate[6] standard for wastewaters only	122-66-7	0.087	NA
U110			
Dipropylamine			
Dipropylamine	142-84-7	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
U111			
Di-n-propylnitrosamine			
Di-n-propylnitrosamine	621-64-7	0.40	14
U112			
Ethyl acetate			
Ethyl acetate	~~141-78-8~~141-78-6	0.34	33
U113			
Ethyl acrylate			
Ethyl acrylate	140-88-5	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	CMBST
U114			
Ethylenebisdithiocarbamic acid salts and esters			
Ethylenebisdithiocarbamic acid	111-54-6	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
U115			
Ethylene oxide			
Ethylene oxide	75-21-8	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	CHOXD; or ~~INCIN~~CMBST

Ethylene oxide; alternate[6] standard for wastewaters only	75-21-8	0.12	NA
U116 Ethylene thiourea			
Ethylene thiourea	96-45-7	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~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 ~~INCIN~~CMBST	~~INCIN~~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 ~~INCIN~~CMBST	CMBST
U123 Formic acid			
Formic acid	64-18-6	(WETOX or CHOXD) fb	CMBST

		CARBN; or ~~INCIN~~CMBST	
U124 Furan			
Furan	110-00-9	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	CMBST
U125 Furfural			
Furfural	98-01-1	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	CMBST
U126 Glycidylaldehyde			
Glycidylaldehyde	765-34-4	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	CMBST
U127 Hexachlorobenzene			
Hexachlorobenzene	118-74-1	0.055	10
U128 Hexachlorobutadiene			
Hexachlorobutadiene	87-68-3	0.055	5.6
U129 Lindane			
alpha-BHC	319-84-6	0.00014	0.066
beta-BHC	319-85-7	0.00014	0.066
delta-BHC	319-86-8	0.023	0.066
gamma-BHC (Lindane)	58-89-9	0.0017	0.066
U130 Hexachlorocyclopentadiene			
Hexachlorocyclopentadiene	77-47-4	0.057	2.4
U131 Hexachloroethane			

Hexachloroethane	67-72-1	0.055	30
U132 Hexachlorophene			
Hexachlorophene	70-30-4	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
U133 Hydrazine			
Hydrazine	302-01-2	CHOXD; CHRED; CARBN; BIODG; or ~~INCIN~~CMBST	CHOXD; CHRED; or CMBST
U134 Hydrogen fluoride			
Fluoride (measured in wastewaters only)	16964-48-8	35	ADGAS fb NEUTR; or NEUTR
U135 Hydrogen sulfide			
Hydrogen sulfide	7783-06-4	CHOXD; CHRED; or ~~INCIN~~CMBST	CHOXD; CHRED; or ~~INCIN~~CMBST
U136 Cacodylic acid			
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
U137 Indeno(1,2,3-c,d)pyrene			
Indeno(1,2,3-c,d)pyrene	193-39-5	0.0055	3.4
U138 Iodomethane			
Iodomethane	74-88-4	0.19	65
U140 Isobutyl alcohol			
Isobutyl alcohol	78-83-1	5.6	170

U141 Isosafrole Isosafrole	120-58-1	0.081	2.6
U142 Kepone Kepone	143-50-8	0.0011	0.13
U143 Lasiocarpine Lasiocarpine	303-34-4	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
U144 Lead acetate Lead	7439-92-1	0.69	0.37 mg/l TCLP
U145 Lead phosphate Lead	7439-92-1	0.69	0.37 mg/l TCLP
U146 Lead subacetate Lead	7439-92-1	0.69	0.37 mg/l TCLP
U147 Maleic anhydride Maleic anhydride	108-31-6	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	CMBST
U148 Maleic hydrazide Maleic hydrazide	123-33-1	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
U149 Malononitrile Malononitrile	109-77-3	(WETOX or CHOXD) fb	~~INCIN~~CMBST

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

U154 Methanol			
Methanol	67-56-1	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	CMBST
Methanol; alternate[6] 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 ~~INCIN~~CMBST	~~INCIN~~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 ~~INCIN~~CMBST	CHOXD; CHRED; or CMBST
U161 Methyl isobutyl ketone			

Methyl isobutyl ketone	108-10-1	0.14	33
U162			
Methyl methacrylate			
Methyl methacrylate	80-62-6	0.14	160
U163			
N-Methyl-N'-nitro-N-nitrosoguanidine			
N-Methyl-N'-nitro-N-nitrosoguanidine	70-25-7	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
U164			
Methylthiouracil			
Methylthiouracil	56-04-2	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~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 ~~INCIN~~CMBST	CMBST
U167			
1-Naphthylamine			
1-Naphthylamine	134-32-7	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
U168			
2-Naphthylamine			
2-Naphthylamine	91-59-8	0.52	~~INCIN~~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 ~~INCIN~~CMBST	~~INCIN~~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 ~~INCIN~~CMBST	~~INCIN~~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 ~~INCIN~~CMBST	~~INCIN~~CMBST
U177 N-Nitroso-N-methylurea N-Nitroso-N-methylurea	684-93-5	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
U178 N-Nitroso-N-methylurethane N-Nitroso-N-methylurethane	615-53-2	(WETOX or CHOXD) fb	~~INCIN~~CMBST

		CARBN; or ~~INCIN~~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 ~~INCIN~~CMBST	CMBST
U183 Pentachlorobenzene Pentachlorobenzene	608-93-5	0.055	10
U184 Pentachloroethane Pentachloroethane	76-01-7	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
Pentachloroethane; alternate[6] standards for both wastewaters and nonwastewaters	76-01-7	0.055	6.0
U185 Pentachloronitrobenzene Pentachloronitrobenzene	82-68-8	0.055	4.8
U186 1,3-Pentadiene 1,3-Pentadiene	504-60-9	(WETOX or CHOXD) fb	CMBST

		CARBN; or ~~INCIN~~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 ~~INCIN~~CMBST	CHOXD; CHRED; or ~~INCIN~~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 ~~INCIN~~CMBST	~~INCIN~~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 ~~INCIN~~CMBST	~~INCIN~~CMBST
U194			

n-Propylamine			
n-Propylamine	107-10-8	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
U196			
Pyridine			
Pyridine	110-86-1	0.014	16
U197			
p-Benzoquinone			
p-Benzoquinone	106-51-4	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	CMBST
U200			
Reserpine			
Reserpine	50-55-5	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
U201			
Resorcinol			
Resorcinol	108-46-3	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	CMBST
U202			
Saccharin and salts			
Saccharin	81-07-2	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
U203			
Safrole			
Safrole	94-59-7	0.081	22
U204			
Selenium dioxide			
Selenium	7782-49-2	0.82	0.16 mg/l TCLP

U205 Selenium sulfide			
Selenium	7782-49-2	0.82	0.16 mg/l TCLP
U206 Streptozotocin			
Streptozotocin	18883-66-4	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~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 ~~INCIN~~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 ~~INCIN~~CMBST	~~INCIN~~CMBST
U219			
Thiourea			
Thiourea	62-56-6	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
U220			
Toluene			
Toluene	108-88-3	0.080	10
U221			
Toluenediamine			
Toluenediamine	25376-45-8	CARBN; or ~~INCIN~~CMBST	CMBST
U222			
o-Toluidine hydrochloride			
o-Toluidine hydrochloride	636-21-5	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
U223			

Toluene diisocyanate			
Toluene diisocyanate	26471-62-5	CARBN; or ~~INCIN~~CMBST	CMBST
U225			
Bromoform (Tribromomethane)			
Bromoform (Tribromo-methane)	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-Tricloroethane			
1,1,2-Tricloroethane	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 ~~INCIN~~CMBST	~~INCIN~~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 ~~INCIN~~CMBST	~~INCIN~~CMBST
U237			
Uracil mustard			
Uracil mustard	66-75-1	(WETOX or CHOXD) fb CARBN; or	~~INCIN~~CMBST

		~~INCIN~~CMBST	
U238			
Urethane (Ethyl carbamate)			
Urethane (Ethyl carbamate)	51-79-6	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~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 ~~INCIN~~CMBST	~~INCIN~~CMBST
U243			
Hexachloropropylene			
Hexachloropropylene	1888-71-7	0.035	30
U244			
Thiram			
Thiram	137-26-8	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	~~INCIN~~CMBST
U246			
Cyanogen bromide			
Cyanogen bromide	506-68-3	CHOXD; WETOX; or ~~INCIN~~CMBST	CHOXD; WETOX; or ~~INCIN~~CMBST
U247			
Methoxychlor			
Methoxychlor	72-43-5	0.25	0.18

U248 Warfarin, & salts, when present at concentrations of 0.3% or less			
Warfarin	81-81-2	(WETOX or CHOXD) fb CARBN; or ~~INCIN~~CMBST	CMBST
U249 Zinc phosphide, Zn_3P_2, when present at concentrations of 10% or less			
Zinc Phosphide	1314-84-7	CHOXD; CHRED; or ~~INCIN~~CMBST	CHOXD; CHRED; or ~~INCIN~~CMBST
U271 Benomyl[10]			
Benomyl	17804-35-2	0.056	1.4
U278 Bendiocarb[10]			
Bendiocarb	22781-23-3	0.056	1.4
U279 Carbaryl[10]			
Carbaryl	63-25-2	0.006	0.14
U280 Barban[10]			
Barban	101-27-9	0.056	1.4
U328 o-Toluidine			
o-Toluidine	95-53-4	~~INCIN~~CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	~~INCIN~~CMBST~~; or Thermal Destruction~~
U353 p-Toluidine			
p-Toluidine	106-49-0	~~INCIN~~CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb	~~INCIN~~CMBST~~; or Thermal Destruction~~

		CARBN	
U359 2-Ethoxyethanol			
2-Ethoxyethanol	110-80-5	~~INCIN~~CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST
U364 Bendiocarb phenol[10]			
Bendiocarb phenol	22961-82-6	0.056	1.4
U367 Carbofuran phenol[10]			
Carbofuran phenol	1563-38-8	0.056	1.4
U372 Carbendazim[10]			
Carbendazim	10605-21-7	0.056	1.4
U373 Propham[10]			
Propham	122-42-9	0.056	1.4
U387 Prosulfocarb[10]			
Prosulfocarb	52888-80-9	0.042	1.4
U389 Triallate[10]			
Triallate	2303-17-5	0.042	1.4
U394 A2213[10]			
A2213	30558-43-1	0.042	1.4
U395 Diethylene glycol, dicarbamate[10]			
Diethylene glycol, dicarbamate	5952-26-1	0.056	1.4
U404			

Triethylamine[10]			
Triethylamine	101-44-8	0.081	1.5
U409			
Thiophanate-methyl[10]			
Thiophanate-methyl	23564-05-8	0.056	1.4
U410			
Thiodicarb[10]			
Thiodicarb	59669-26-0	0.019	1.4
U411			
Propoxur[10]			
Propoxur	114-26-1	0.056	1.4

Notes:

1 The waste descriptions provided in this table do not replace waste descriptions in 35 Ill. Adm. Code 721. Descriptions of Treatment or Regulatory Subcategories are provided, as needed, to distinguish between applicability of different standards.

2 CAS means Chemical Abstract Services. When the waste code or regulated constituents are described as a combination of a chemical with its salts or esters, the CAS number is given for the parent compound only.

3 Concentration standards for wastewaters are expressed in mg/l and are based on analysis of composite samples.

4 All treatment standards expressed as a Technology Code or combination of Technology Codes are explained in detail in 35 Ill. Adm. Code 728.Table C, "Technology Codes and Descriptions of Technology-Based Standards". "fb" inserted between waste codes denotes "followed by", so that the first-listed treatment is followed by the second-listed treatment. ";" separates alternative treatement schemes.

5 Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of 35 Ill. Adm. Code 724.Subpart O or 35 Ill. Adm. Code 725.Subpart O~~,~~ or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in 35 Ill. Adm. Code 728.140(d). All concentration standards for nonwastewaters are based on analysis of grab samples.

6 Where an alternate treatment standard or set of alternate standards has been indicated, a facility may comply with this alternate standard, but only for the Treatment or Regulatory Subcategory or physical form (i.e., wastewater or nonwastewater) specified for that alternate standard.

7 Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010 or 9012, found in "Test Methods for Evaluating Solid Waste, Physical or Chemical Methods", USEPA Publication SW-846, as incorporated by reference in 35 Ill. Adm. Code 720.111, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.

8 These wastes, when rendered nonhazardous and then subsequently managed in CWA or CWA-equivalent systems, are not subject to treatment standards. (See Section 728.101(c)(3) and (c)(4).)

9 These wastes, when rendered nonhazardous and then subsequently injected in a Class I SDWA well, are not subject to treatment standards. (See 35 Ill. Adm. Code 738.101(d).)

10 This footnote corresponds with note 10 to the table to 40 CFR 268.40, which has already expired by its own terms. This statement maintains structural consistency with the federal regulations.

NA means not applicable.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 728.Table U Universal Treatment Standards (UTS)

Regulated Constituent-Common Name	CAS[1] No.	Wastewater Standard Concentration (in mg/l[2])	Nonwastewater Standard Concentration (in mg/kg[3] unless noted as "mg/l TCLP")
A2213[6]	30558-43-1	0.042	1.4
Acenaphthylene	208-96-8	0.059	3.4
Acenaphthene	83-32-9	0.059	3.4
Acetone	67-64-1	0.28	160

Acetonitrile	75-05-8	5.6	~~1.8~~38
Acetophenone	96-86-2	0.010	9.7
2-Acetylaminofluorene	53-96-3	0.059	140
Acrolein	107-02-8	0.29	NA
Acrylamide	79-06-1	19	23
Acrylonitrile	107-13-1	0.24	84
Aldicarb sulfone[6]	1646-88-4	0.056	0.28
Aldrin	309-00-2	0.021	0.066
4-Aminobiphenyl	92-67-1	0.13	NA
Aniline	62-53-3	0.81	14
Anthracene	120-12-7	0.059	3.4
Aramite	140-57-8	0.36	NA
alpha-BHC	319-84-6	0.00014	0.066
beta-BHC	319-85-7	0.00014	0.066
delta-BHC	319-86-8	0.023	0.066
gamma-BHC	58-89-9	0.0017	0.066
Barban[6]	101-27-9	0.056	1.4
Bendiocarb[6]	22781-23-3	0.056	1.4
Bendiocarb phenol[6]	22961-82-6	0.056	1.4
Benomyl[6]	17804-35-2	0.056	1.4
~~Benzene~~	~~71-43-2~~	~~0.14~~	~~10~~
Benz(a)anthracene	56-55-3	0.059	3.4
Benzal chloride	98-87-3	0.055	6.0

Benzene	71-43-2	0.14	10
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
Benzo(a)pyrene	50-32-8	0.061	3.4
Bromodichloromethane	75-27-4	0.35	15
Methyl bromide (Bromo-methane)	74-83-9	0.11	15
4-Bromophenyl phenyl ether	101-55-3	0.055	15
n-Butyl alcohol	71-36-3	5.6	2.6
Butylate[6]	2008-41-5	0.042	1.4
Butyl benzyl phthalate	85-68-7	0.017	28
2-sec-Butyl-4,6-dinitro-phenol (Dinoseb)	88-85-7	0.066	2.5
Carbaryl[6]	63-25-2	0.006	0.14
Carbenzadim[6]	10605-21-7	0.056	1.4
Carbofuran[6]	1563-66-2	0.006	0.14
Carbofuran phenol[6]	1563-38-8	0.056	1.4
Carbon disulfide	75-15-0	3.8	4.8 mg/l TCLP
Carbon tetrachloride	56-23-5	0.057	6.0
Carbosulfan[6]	55285-14-8	0.028	1.4
Chlordane (alpha and gamma	57-74-9	0.0033	0.26

isomers)			
p-Chloroaniline	106-47-8	0.46	16
Chlorobenzene	108-90-7	0.057	6.0
Chlorobenzilate	510-15-6	0.10	NA
2-Chloro-1,3-butadiene	126-99-8	0.057	0.28
Chlorodibromomethane	124-48-1	0.057	15
Chloroethane	75-00-3	0.27	6.0
bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2
bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
2-Chloroethyl vinyl ether	110-75-8	0.062	NA
Chloroform	67-66-3	0.046	6.0
bis(2-Chloroisopropyl)ether	~~108-60-1~~39638-32-9	0.055	7.2
p-Chloro-m-cresol	59-50-7	0.018	14
~~2-Chloroethyl vinyl ether~~	~~110-75-8~~	~~0.062~~	~~NA~~
Chloromethane (Methyl chloride)	74-87-3	0.19	30
2-Chloronaphthalene	91-58-7	0.055	5.6
2-Chlorophenol	95-57-8	0.044	5.7
3-Chloropropylene	107-05-1	0.036	30
Chrysene	218-01-9	0.059	3.4
o-Cresol	95-48-7	0.11	5.6
m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6

p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
m-Cumenyl methyl-carbamate[6]	64-00-6	0.056	1.4
Cyclohexanone	108-94-1	0.36	0.75 mg/l TCLP
~~1,2-Dibromo-3-chloro-propane~~	~~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-Dichloro-phenoxyacetic 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
1,2-Dibromo-3-chloro-propane	96-12-8	0.11	15
1,2-Dibromoethane/Ethylene dibromide	106-93-4	0.028	15
Dibromomethane	74-95-3	0.11	15
m-Dichlorobenzene	541-73-1	0.036	6.0

o-Dichlorobenzene	95-50-1	0.088	6.0
p-Dichlorobenzene	106-46-7	0.090	6.0
Dichlorodifluoromethane	75-71-8	0.23	7.2
1,1-Dichloroethane	75-34-3	0.059	6.0
1,2-Dichloroethane	107-06-2	0.21	6.0
1,1-Dichloroethylene	75-35-4	0.025	6.0
trans-1,2-Dichloroethylene	156-60-5	0.054	30
2,4-Dichlorophenol	120-83-2	0.044	14
2,6-Dichlorophenol	87-65-0	0.044	14
2,4-Dichlorophenoxyacetic acid/2,4-D	94-75-7	0.72	10
1,2-Dichloropropane	78-87-5	0.85	18
cis-1,3-Dichloropropylene	10061-01-5	0.036	18
trans-1,3-Dichloropropylene	10061-02-6	0.036	18
Dieldrin	60-57-1	0.017	0.13
Diethylene glycol, dicarbamate[6]	5952-26-1	0.056	1.4
Diethyl phthalate	84-66-2	0.20	28
p-Dimethylaminoazobenzene	60-11-7	0.13	NA
2,4-Dimethyl phenol	105-67-9	0.036	14
Dimethyl phthalate	131-11-3	0.047	28
Dimetilan[6]	644-64-4	0.056	1.4
Di-n-butyl phthalate	84-74-2	0.057	28
1,4-Dinitrobenzene	100-25-4	0.32	2.3

4,6-Dinitro-o-cresol	534-52-1	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
~~p-Dimethylaminoazobenzene~~	~~60-11-7~~	~~0.13~~	~~NA~~
Di-n-propylnitrosamine	621-64-7	0.40	14
1,4-Dioxane	123-91-1	~~NA~~12.0	170
Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	13
Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	13
1,2-Diphenylhydrazine	122-66-7	0.087	NA
Disulfoton	298-04-4	0.017	6.2
Dithiocarbamates (total)[6]	137-30-4	0.028	28
Endosulfan I	~~939-98-8~~959-98-8	0.023	0.066
Endosulfan II	~~33213-6-5~~33213-65-9	0.029	0.13
Endosulfan sulfate	~~1-31-07-8~~1031-07-8	0.029	0.13
Endrin	72-20-8	0.0028	0.13
Endrin aldehyde	7421-93-4	0.025	0.13
EPTC[6]	759-94-4	0.042	1.4
Ethyl acetate	141-78-6	0.34	33

~~Ethyl cyanide (Propanenitrile)~~	~~107-12-0~~	~~0.24~~	~~360~~
Ethyl benzene	100-41-4	0.057	10
Ethyl cyanide (Propanenitrile)	107-12-0	0.24	360
Ethyl ether	60-29-7	0.12	160
~~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
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Famphur	52-85-7	0.017	15
Fluoranthene	206-44-0	0.068	3.4
Fluorene	86-73-7	0.059	3.4
Formetanate hydrochloride[6]	23422-53-9	0.056	1.4
Formparanate[6]	17702-57-7	0.056	1.4
Heptachlor	76-44-8	0.0012	0.066
Heptachlor epoxide	1024-57-3	0.016	0.066
Hexachlorobenzene	118-74-1	0.055	10
Hexachlorobutadiene	87-68-3	0.055	5.6
Hexachlorocyclopentadiene	77-47-4	0.057	2.4
HxCDDs (All Hexachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachloro-dibenzofurans)	NA	0.000063	0.001

Hexachloroethane	67-72-1	0.055	30
Hexachloropropylene	1888-71-7	0.035	30
Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4
Iodomethane	74-88-4	0.19	65
Isobutyl alcohol	78-83-1	5.6	170
Isodrin	465-73-6	0.021	0.066
Isolan[6]	119-38-0	0.056	1.4
Isosafrole	120-58-1	0.081	2.6
Kepone	~~143-50-8~~143-50-0	0.0011	0.13
Methacrylonitrile	126-98-7	0.24	84
Methanol	67-56-1	5.6	0.75 mg/l TCLP
Methapyrilene	91-80-5	0.081	1.5
Methiocarb[6]	2032-65-7	0.056	1.4
Methomyl[6]	16752-77-5	0.028	0.14
Methoxychlor	72-43-5	0.25	0.18
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

Metolcarb[6]	1129-41-5	0.056	1.4
Mexacarbate[6]	315-18-4	0.056	1.4
Molinate[6]	2212-67-1	0.042	1.4
Naphthalene	91-20-3	0.059	5.6
2-Naphthylamine	91-59-8	0.52	NA
o-Nitroaniline	88-74-4	0.27	14
p-Nitroaniline	100-01-6	0.028	28
Nitrobenzene	98-95-3	0.068	14
5-Nitro-o-toluidine	99-55-8	0.32	28
o-Nitrophenol	88-75-5	0.028	13
p-Nitrophenol	100-02-7	0.12	29
N-Nitrosodiethylamine	55-18-5	0.40	28
N-Nitrosodimethylamine	62-75-9	0.40	2.3
N-Nitroso-di-n-butylamine	924-16-3	0.40	17
N-Nitrosomethylethylamine	10595-95-6	0.40	2.3
N-Nitrosomorpholine	59-89-2	0.40	2.3
N-Nitrosopiperidine	100-75-4	0.013	35
N-Nitrosopyrrolidine	930-55-2	0.013	35
Oxamyl[6]	23135-22-0	0.056	0.28
Parathion	56-38-2	0.014	4.6
Total PCBs (sum of all PCB isomers, or all Aroclors)	1336-36-3	0.10	10
Pebulate[6]	1114-71-2	0.042	1.4

Pentachlorobenzene	608-93-5	0.055	10
PeCDDs (All Pentachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
PeCDFs (All Pentachloro-dibenzofurans)	NA	0.000035	0.001
Pentachloroethane	76-01-7	0.055	6.0
Pentachloronitrobenzene	82-68-8	0.055	4.8
Pentachlorophenol	87-86-5	0.089	7.4
Phenacetin	62-44-2	0.081	16
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
o-Phenylenediamine[6]	95-54-5	0.056	5.6
Phorate	298-02-2	0.021	4.6
Phthalic acid	100-21-0	0.055	28
Phthalic anhydride	85-44-9	0.055	28
Physostigmine[6]	57-47-6	0.056	1.4
Physostigmine salicylate[6]	57-64-7	0.056	1.4
Promecarb[6]	2631-37-0	0.056	1.4
Pronamide	23950-58-5	0.093	1.5
Propham[6]	122-42-9	0.056	1.4
Propoxur[6]	114-26-1	0.056	1.4
Prosulfocarb[6]	52888-80-9	0.042	1.4
Pyrene	129-00-0	0.067	8.2

Pyridine	110-86-1	0.014	16
Safrole	94-59-7	0.081	22
Silvex (2,4,5-TP)	93-72-1	0.72	7.9
~~2,4,5-T (2,4,5-Trichloro-phenoxyacetic acid)~~	~~93-76-5~~	~~0.72~~	~~7.9~~
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
TCDDs (All Tetrachloro-dibenzo-p-dioxins)	NA	0.000063	0.001
TCDFs (All Tetrachloro-dibenzofurans)	NA	0.000063	0.001
1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
1,1,2,2-Tetrachloroethane	~~79-34-6~~79-34-5	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
Thiodicarb[6]	59669-26-0	0.019	1.4
Thiophanate-methyl[6]	23564-05-8	0.056	1.4
Tirpate[6]	26419-73-8	0.056	0.28
Toluene	108-88-3	0.080	10
Toxaphene	8001-35-2	0.0095	2.6
Triallate[6]	2303-17-5	0.042	1.4
~~Bromoform (~~Tribromo-methane (Bromoform)	75-25-2	0.63	15
1,2,4-Trichlorobenzene	120-82-1	0.055	19
1,1,1-Trichloroethane	71-55-6	0.054	6.0
1,1,2-Trichloroethane	79-00-5	0.054	6.0

Trichloroethylene	79-01-6	0.054	6.0
Trichloromonofluoromethane	75-69-4	0.020	30
2,4,5-Trichlorophenol	95-95-4	0.18	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
2,4,5-Trichlorophenoxy-acetic acid/2,4,5-T	93-76-5	0.72	7.9
1,2,3-Trichloropropane	96-18-4	0.85	30
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.057	30
Triethylamine[6]	101-44-8	0.081	1.5
tris-(2,3-Dibromopropyl) phosphate	126-72-7	0.11	0.10
Vernolate[6]	1929-77-7	0.042	1.4
Vinyl chloride	75-01-4	0.27	6.0
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Antimony	7440-36-0	1.9	2.1 mg/l TCLP
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Barium	7440-39-3	1.2	7.6 mg/l TCLP
Beryllium	7440-41-7	0.82	0.014 mg/l TCLP
Cadmium	7440-43-9	0.69	0.19 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Cyanides (Total)[4]	57-12-5	1.2	590
Cyanides (Amenable)[4]	57-12-5	0.86	30

Fluoride[5]	~~16964-48-8~~16984-48-8	35	NA
Lead	7439-92-1	0.69	0.37 mg/l TCLP
Mercury-Nonwastewater from Retort	7439-97-6	NA	0.20 mg/l TCLP
Mercury-All Others	7439-97-6	0.15	0.025 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 mg/l TCLP
Selenium	7782-49-2	0.82	0.16 mg/l TCLP
Silver	7440-22-4	0.43	0.30 mg/l TCLP
Sulfide	~~8496-25-8~~18496-25-8	14	NA
Thallium	7440-28-0	1.4	0.078 mg/l TCLP
Vanadium[5]	7440-62-2	4.3	0.23 mg/l TCLP
Zinc[5]	7440-66-6	2.61	5.3 mg/l TCLP

1 CAS means Chemical Abstract Services. When the waste code or regulated constituents are described as a combination of a chemical with its salts or esters, the CAS number is given for the parent compound only.

2 Concentration standards for wastewaters are expressed in mg/l are based on analysis of composite samples.

3 Except for metals (EP or TCLP) and cyanides (total and amenable), the nonwastewater treatment standards expressed as a concentration were established, in part, based on incineration in units operated in accordance with the technical requirements of 35 Ill. Adm. Code 724.Subpart O or 35 Ill. Adm. Code 725.Subpart O or on combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in 40 CFR 268.40(d). All concentration standards for nonwastewaters are based on analysis of grab samples.

4 Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010 or 9012, found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA Publication SW-846,

incorporated by reference in 35 Ill. Adm. Code 720.111, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.

5 ~~Vanadium and zinc~~These constituents are not "underlying hazardous constituents" in characteristic wastes, according to the definition at Section 728.102(i).

6 This footnote corresponds with note 6 to the table to 40 CFR 268.48(a), which has already expired by its own terms. This statement maintains structural consistency with the federal regulations.

Note: NA means not applicable.

(Source: Amended at 21 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
733.101 Scope
733.102 Applicability--Batteries
733.103 Applicability--Pesticides
733.104 Applicability--Mercury Thermostats
733.105 Applicability--Household and Conditionally Exempt Small Quantity Generator Waste
733.106 Definitions

SUBPART B: STANDARDS FOR SMALL QUANTITY HANDLERS

Section
733.110 Applicability
733.111 Prohibitions
733.112 Notification
733.113 Waste Management
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SUBPART C: STANDARDS FOR LARGE QUANTITY HANDLERS

SUBPART D: STANDARDS FOR UNIVERSAL WASTE TRANSPORTERS

SUBPART E: STANDARDS FOR DESTINATION FACILITIES

SUBPART F: IMPORT REQUIREMENTS

SUBPART G: PETITIONS TO INCLUDE OTHER WASTES

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

SOURCE: Adopted in R95-20 at 20 Ill. Reg. 11291, effective August 1, 1996; amended in R96-10/R97-3/R97-5 at 21 Ill. Reg. _____, effective _____.

SUBPART B: STANDARDS FOR SMALL QUANTITY HANDLERS

Section 733.120 Exports

A small quantity handler of universal waste that sends universal waste to a foreign destination other than to those OECD countries specified in 35 Ill. Adm. Code 722.158(a)(1) (in which case the handler is subject to the requirements of 35 Ill. Adm. Code 722.Subpart H) shall:

a) Comply with the requirements applicable to a primary exporter in 35 Ill. Adm. Code 722.153; 722.156(a)(1) through (a)(4), (a)(6), and (b); and 722.157;

b) Export such universal waste only upon consent of the receiving country and in conformance with the USEPA Acknowledgement of Consent, as defined in 35 Ill. Adm. Code 722.Subpart E; and

c) Provide a copy of the USEPA Acknowledgment of Consent for the shipment to the transporter transporting the shipment for export.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

SUBPART C: STANDARDS FOR LARGE QUANTITY HANDLERS

Section 733.140 Exports

A large quantity handler of universal waste that sends universal waste to a foreign destination other than to those OECD countries specified in 35 Ill. Adm. Code 722.158(a)(1) (in which case the handler is subject to the requirements of 35 Ill. Adm. Code 722.Subpart H) shall:

a) Comply with the requirements applicable to a primary exporter in 35 Ill. Adm. Code 722.153; 722.156(a)(1) through (a)(4), (a)(6), and (b); and 722.157;

b) Export such universal waste only upon consent of the receiving country and in conformance with the USEPA Acknowledgement of Consent as defined in 35 Ill. Adm. Code 722.Subpart E; and

c) Provide a copy of the USEPA Acknowledgement of Consent for the shipment to the transporter transporting the shipment for export.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

SUBPART D: STANDARDS FOR UNIVERSAL WASTE TRANSPORTERS

Section 733.156 Exports

A universal waste transporter transporting a shipment of universal waste to a foreign destination other than to those OECD countries specified in 35 Ill. Adm. Code 722.158(a)(1) (in which case the transporter is subject to the requirements of 35 Ill. Adm. Code 722.Subpart H) may not accept a shipment if the transporter knows the shipment does not conform to the USEPA Acknowledgment of Consent. In addition the transporter shall ensure the following:

a) A copy of the USEPA Acknowledgment of Consent accompanies the shipment; and

b) The shipment is delivered to the facility designated by the person initiating the shipment.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

SUBPART F: IMPORT REQUIREMENTS

Section 733.170 Imports

Persons managing universal waste that is imported from a foreign country into the United States are subject to the applicable requirements of this Part immediately after the waste enters the United States, as ~~follows~~indicated in subsections (a) through (c) below:

a) A universal waste transporter is subject to the universal waste transporter requirements of ~~733.~~Subpart D of this Part.

b) A universal waste handler is subject to the small or large quantity handler of universal waste requirements of 733.Subpart B or C of this Part, as applicable.

c) An owner or operator of a destination facility is subject to the destination facility requirements of ~~733.~~Subpart E of this Part.

d) Persons managing universal waste that is imported from an OECD country as specified in 35 Ill. Adm. Code 722.158(a)(1) are subject to subsections (a) through (c) of this Section, in addition to the requirements of 35 Ill. Adm. Code 722.Subpart H.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

SUBTITLE G: WASTE DISPOSAL
CHAPTER I: POLLUTION CONTROL BOARD
SUBCHAPTER d: UNDERGROUND INJECTION CONTROL AND UNDERGROUND
STORAGE TANK PROGRAMS

PART 738
HAZARDOUS WASTE INJECTION RESTRICTIONS

SUBPART A: GENERAL

Section
738.101 Purpose Scope and Applicability
738.102 Definitions
738.103 Dilution Prohibited as a Substitute for Treatment
738.104 Case-by-Case Extensions of an Effective Date
738.105 Waste Analysis

SUBPART B: PROHIBITIONS ON INJECTION

Section
738.110 Waste Specific Prohibitions - Solvent Wastes
738.111 Waste Specific Prohibitions - Dioxin-Containing Wastes
738.112 Waste Specific Prohibitions - California List Wastes
738.114 Waste Specific Prohibitions - First Third Wastes
738.115 Waste Specific Prohibitions - Second Third Wastes
738.116 Waste Specific Prohibitions - Third Third Wastes
738.117 Waste-Specific Prohibitions - Newly-Listed Wastes
738.118 Waste-Specific Prohibitions - Newly Identified Wastes

SUBPART C: PETITION STANDARDS AND PROCEDURES

Section
738.120 Petitions to Allow Injection of a Prohibited Waste
738.121 Required Information to Support Petitions
738.122 Submission, Review and Approval or Denial of Petitions
738.123 Review of Adjusted Standards

738.124 Termination of Adjusted Standards

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

SOURCE: Adopted in R89-2 at 14 Ill. Reg. 3059, effective February 20, 1990; amended in R89-11 at 14 Ill. Reg. 11948, effective July 9, 1990; amended in R90-14 at 15 Ill. Reg. 11425, effective July 24, 1991; amended in R92-13 at 17 Ill. Reg. 6190, effective April 5, 1993; amended in R93-6 at 17 Ill. Reg. 15641, effective September 14, 1993; amended in R95-4 at 19 Ill. Reg. 9501, effective June 27, 1995; amended in R96-10/R97-3/R97-5 at 21 Ill. Reg. _____, effective _____.

SUBPART A: GENERAL

Section 738.101 Purpose Scope and Applicability

a) This Part identifies hazardous wastes that are restricted from disposal into Class I ~~hazardous waste injection~~ wells and defines those circumstances under which a waste, otherwise prohibited from injection, may be injected.

b) The requirements of this Part apply to owners or operators of the following Class I wells:

1) ~~h~~Hazardous waste injection wells that are used to inject hazardous waste; and

2) Injection wells that are used to inject wastes which once exhibited a prohibited characteristic of hazardous waste identified in 35 Ill. Adm. Code 721.Subpart C, at the point of generation, and which no longer exhibit the characteristic at the point of injection.

c) Wastes otherwise prohibited from injection may continue to be injected:

1) If an extension from the effective date of a prohibition has been granted pursuant to Section 738.104; or

2) If an adjusted standard has been granted in response to a petition filed under Section 738.120; or

3) If the waste is generated by a conditionally exempt small quantity generator, as defined in 35 Ill. Adm. Code 721.105.

d) ~~W~~A waste~~s~~ that ~~are~~is hazardous only because ~~they~~it exhibits a ~~hazardous~~ characteristic~~, and which~~ of hazardous waste and which ~~are~~is otherwise prohibited from injection under this Part or 35 Ill. Adm. Code 728~~,~~ ~~are~~is not prohibited from injection if the following is true of the waste~~s~~:

1) ~~Are~~It is disposed into a ~~Class I~~ non-hazardous ~~waste injection well~~ or ~~a Class I~~ hazardous waste injection well ~~that receives only non-prohibited hazardous wastes~~, as ~~such are~~ defined under 35 Ill. Adm. Code 730.106(a); and

2) ~~Do~~It does not exhibit any prohibited characteristic of hazardous waste identified in 35 Ill. Adm. Code 721.Subpart C at the point of injection.

~~BOARD NOTE: The exemption for injection of diluted hazardous waste in this subsection was the subject of litigation in Chemical Waste Management et al. v. USEPA, 976 F.2d 2 (D.C. Cir. 1992). The USEPA response to the mandate in this litigation may result in the repeal or modification of 40 CFR 148.1(d), from which this subsection is derived. USEPA responded to the remand by issuing an interim final rule on May 24, 1993, at 58 Fed. Reg. 29860, but that action did not directly affect 40 CFR 148.1. The Board views any federal court decision on the effectiveness or enforceability of the USEPA rule as binding on this subsection.~~

BOARD NOTE: Derived from 40 CFR 148.1 (199~~2~~6)~~, as amended at 57 Fed. Reg. 31963 (July 20, 1992)~~.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 738.103 Dilution Prohibited as a Substitute for Treatment

~~The prohibition of 35 Ill. Adm. Code 728.103 shall apply to owners or operators of Class I hazardous waste injection wells.~~

a) The provisions of 35 Ill. Adm. Code 728.103 shall apply to owners or operators of Class I wells used to inject a waste that is hazardous at the point of generation whether or not the waste is hazardous at the point of injection.

b) Owners or operators of Class I nonhazardous waste injection wells that inject waste formerly exhibiting a hazardous characteristic which has been removed by dilution may address underlying hazardous constituents by treating the hazardous waste, obtaining an exemption pursuant to a

petition filed under Section 738.120, or complying with the provisions set forth in 35 Ill. Adm. Code 728.109.

BOARD NOTE: Derived from 40 CFR 148.3 (1988~~88~~96)~~, as added at 53 Fed. Reg. 28155, July 26, 1988~~.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 738.104 Case-by-Case Extensions of an Effective Date

The owner or operator of a Class I hazardous or nonhazardous waste injection well may submit an application to USEPA for an extension of the effective date of any applicable prohibition established under Subpart B. (See 35 Ill. Adm. Code 728.105.)

BOARD NOTE: Derived from 40 CFR 148.4 (1988~~88~~96)~~, as added at 53 Fed. Reg. 28155, July 26, 1988~~.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

SUBPART B: PROHIBITIONS ON INJECTION

Section 738.117 Waste-Specific Prohibitions - Newly-Listed Wastes

a) The wastes specified in 35 Ill. Adm. Code 721.Subpart D by the following U~~.~~S~~.~~ EPA hazardous waste numbers are prohibited from underground injection:

F037
F038
K107
K108
K109
K110
K111
K112
K117
K118
K123
K124
K125
K126
K131
K136
U328

U353
U359

b) The wastes specified in 35 Ill. Adm. Code 721.Subpart D by the following U~~.~~S~~.~~ EPA hazardous waste numbers are prohibited from underground injection:

K141
K142
K143
K144
K145
K147
K148
K149
K150
K151

~~c) Effective September 19, 1995, the wastes specified in 35 Ill. Adm. Code 721.Subpart C by the following U.S. EPA hazardous waste numbers are prohibited from underground injection:~~

~~D001 (high TOC subcategory, as specified at 35 Ill. Adm. Code 728.140)~~
~~D012~~
~~D013~~
~~D014~~
~~D015~~
~~D016~~
~~D017~~

c) This subsection corresponds with 40 CFR 148.17(c), removed and marked "reserved" by USEPA at 61 Fed. Reg. 15662 (April 8, 1996). This statement maintains structural consistency with USEPA rules.

d) Effective June 30, 1995, the wastes specified in 35 Ill. Adm. Code 721.Subpart D by the following U~~.~~S~~.~~ EPA hazardous waste numbers are prohibited from underground injection:

K117
K118
K131
K132

e) The requirements of subsections (a) and (b) ~~above~~of this Section do not apply:

1) If the wastes meet or are treated to meet the applicable standards specified in 35 Ill. Adm. Code 728.Subpart D; or

2) If an adjusted standard has been granted in response to a petition under ~~738.~~Subpart C of this Part; or

3) During the period of extension of the applicable effective date, if an extension is granted under Section 738.104.

BOARD NOTE: Derived from 40 CFR 148.17~~, as added at 57 Fed. Reg. 37263 (Aug. 18, 1992)~~ (1996).

(Source: Amended at 21 Ill. Reg. _____, effective _____)

Section 738.118 Waste-Specific Prohibitions - Newly Identified Wastes

a) The wastes specified in 35 Ill. Adm. Code 721.132 as having the following USEPA hazardous waste numbers are prohibited from underground injection:

K156
K157
K158
K159
K160
K161
P127
P128
P185
P188
P189
P190
P191
P192
P194
P196
P197
P198
P199
P201
P202
P203

P204
P205
U271
U277
U278
U279
U280
U364
U365
U366
U367
U372
U373
U375
U376
U377
U378
U379
U381
U382
U383
U384
U385
U386
U387
U389
U390
U391
U392
U393
U394
U395
U396
U400
U401
U402
U403
U404
U407
U409
U410
U411

b) The wastes specified in 35 Ill. Adm. Code 721.132 as USEPA hazardous waste number K088 is prohibited from underground injection.

c) On April 8, 1998, the wastes specified in 35 Ill. Adm. Code 721 as having the following USEPA hazardous waste numbers and Mixed TC/Radioactive wastes are prohibited from underground injection:

D018
D019
D020
D021
D022
D023
D024
D025
D026
D027
D028
D029
D030
D031
D032
D033
D034
D035
D036
D037
D038
D039
D040
D041
D042
D043

d) On April 8, 1998, the wastes specified in 35 Ill. Adm. Code 721 as having the following USEPA hazardous waste numbers are prohibited from underground injection:

D001
D002
D003

(Source: Added at 21 Ill. Reg. _____, effective _____)

SUBPART C: PETITION STANDARDS AND PROCEDURES

Section 738.120 Petitions to Allow Injection of a Prohibited Waste

a) Any person seeking an exemption from a prohibition under Subpart B for the injection of a restricted hazardous waste ~~into an injection well or wells~~, including a hazardous waste that exhibits a characteristic of hazardous waste and which contains underlying hazardous constituents at the point of generation, but which no longer exhibits a characteristic of hazardous waste when injected into a Class I injection well or wells, shall submit a petition for an adjusted standard to the Board, pursuant to 35 Ill. Adm. Code 106.Subpart G, demonstrating that, to a reasonable degree of certainty, there will be no migration of hazardous constituents from the injection zone for as long as the waste remains hazardous. This demonstration requires a showing that:

1) The hydrogeological and geochemical conditions at the site(s) and the physiochemical nature of the waste stream(s) are such that reliable predictions can be made that:

A) Fluid movement conditions are such that the injected fluids will not migrate within 10,000 years:

i) Vertically upward out of the injection zone; or

ii) Laterally within the injection zone to a point of discharge or interface with an Underground Source of Drinking Water (USDW) as defined in 35 Ill. Adm. Code 730; or

B) Before the injected fluids migrate out of the injection zone or to a point of discharge or interface with USDW, the fluid will no longer be hazardous because of attenuation, transformation, or immobilization of hazardous constituents within the injection zone by hydrolysis, chemical interactions or other means; and

2) For each well the petition has:

A) Demonstrated that the injection well's area of review complies with the substantive requirements of 35 Ill. Adm. Code 730.163;

B) Located, identified, and ascertained the condition of all wells within the injection well's area of review (as specified in 35 Ill. Adm. Code 730.163) that penetrate the injection zone or the confining zone by use of a protocol

acceptable to the Board that meets the substantive requirements of 35 Ill. Adm. Code 730.164;

C) Submitted a corrective action plan that meets the substantive requirements of 35 Ill. Adm. Code 730.164, the implementation of which shall become a condition of any adjusted standard granted; and

D) Submitted the results of pressure and radioactive tracer tests performed within one year prior to submission of the petition demonstrating the mechanical integrity of the well's long string casing, injection tube, annular seal, and bottom hole cement. In cases where the petition has not been approved or denied within one year after the initial demonstration of mechanical integrity, the Board may require the owner or operator to perform the tests again and submit the results of the new tests.

BOARD NOTE: The requirements of subsection (a)(2) need not be incorporated in a permit at the time the Board grants an adjusted standard.

b) A demonstration under subsection (a)(1)(A) must identify the strata within the injection zone which will confine fluid movement above the injection interval and include a showing that this strata is free of known transmissive faults of fractures and that there is a confining zone above the injection zone.

c) A demonstration under subsection (a)(1)(B) must identify the strata within the injection zone where waste transformation will be accomplished and include a showing that this strata is free of known transmissive faults or fractures and that there is a confining zone above the injection zone.

d) A demonstration may include a showing that:

1) Treatment methods that reduce the toxicity or mobility of the wastes, the implementation of which will become a condition of any adjusted standard, must be utilized; or

2) A monitoring plan, the implementation of which will become a condition of any adjusted standard, must be utilized to enhance confidence in one or more aspects of the demonstration.

e) Any person ~~who~~that has been granted an adjusted standard pursuant to this Section may submit a petition for reissuance of the adjusted standard to include an additional restricted waste or wastes or to modify any conditions placed on that adjusted standard by the Board. The Board will reissue the adjusted standard if the petitioner complies with subsections (a), (b) and (c).

f) Any person ~~who~~that has been granted an adjusted standard pursuant to this Section may submit a petition to modify that adjusted standard to include an additional (hazardous) waste or wastes. The Board may grant the modification if it determines, to a reasonable degree of certainty, that the additional waste or wastes will behave hydraulically and chemically in a manner similar to previously included wastes and that it will not interfere with the containment capability of the injection zone.

BOARD NOTE: Derived from 40 CFR 148.20 (19~~88~~96)~~, as added at 53 Fed. Reg. 28155, July 26, 1988~~.

(Source: Amended at 21 Ill. Reg. _____, effective _____)

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

PART 739
STANDARDS FOR THE MANAGEMENT OF USED OIL

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SUBPART I: STANDARDS FOR USE AS A DUST SUPPRESSANT DISPOSAL OF USED OIL

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

SOURCE: Adopted in R93-4 at 17 Ill. Reg. 20954, effective November 22, 1993; amended in R93-16 at 18 Ill. Reg. 6931, effective April 26, 1994; amended in R94-17 at 18 Ill. Reg. 17616, effective November 23, 1994; amended in R95-6 at 19 Ill. Reg. 10036, effective June 27, 1995; amended in R96-10/R97-3/R97-5 at 21 Ill. Reg. _____, effective _____.

SUBPART B: APPLICABILITY

Section 739.110 Applicability

This Section identifies those materials which are subject to regulation as used oil under this Part. This Section also identifies some materials that are not subject to regulation as used oil under this Part, and indicates whether these materials may be subject to regulation as hazardous waste under ~~Parts~~35 Ill. Adm. Code 702, 703, 720 through 726, and 728.

a) Used oil. U~~.~~S~~.~~ EPA presumes that used oil is to be recycled unless a used oil handler disposes of used oil, or sends used oil for disposal. Except as provided in Section 739.111, the regulations of this Part apply to used oil, and to materials identified in this Section as being subject to regulation as used oil, whether or not the used oil or material exhibits

any characteristics of hazardous waste identified in 35 Ill. Adm. Code 721.Subpart C.

b) Mixtures of used oil and hazardous waste.

1) Listed hazardous waste.

A) A mixture of used oil and hazardous waste that is listed in 35 Ill. Adm. Code 721.Subpart D is subject to regulation as hazardous waste under 35 Ill. Adm. Code 703, 720 through 726, and 728, rather than as used oil under this Part.

B) 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 35 Ill. Adm. Code 721.Subpart D. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from SW-846, Edition III, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in 35 Ill. Adm. Code 721.Appendix H). U.S. EPA Publication SW-846, Third Edition, is available from the Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954, (202) 783-3238 (document number 955-001-00000-1).

i) The rebuttable presumption does not apply to metalworking oils or fluids containing chlorinated paraffins, if they are processed, through a tolling arrangement as described in Section 739.124(c), to reclaim metalworking oils or fluids. The presumption does apply to metalworking oils or fluids if such oils or fluids are recycled in any other manner, or disposed.

ii) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

2) Characteristic hazardous waste. A mixture of used oil and hazardous waste that exhibits a hazardous waste characteristic identified in 35 Ill. Adm. Code 721.Subpart C and a mixture of used oil and hazardous waste that is listed in Subpart D of this Part solely because it exhibits one or more of the characteristics of hazardous waste identified in 35 Ill. Adm. Code 721.Subpart C is subject to:

A) Except as provided in subsection (b)(2)(C) of this Section, regulation as hazardous waste under 35 Ill. Adm. Code 703, 720 through 726, and 728 rather than as used oil under this Part, if the resultant mixture exhibits any characteristics of hazardous waste identified in 35 Ill. Adm. Code 721.Subpart C; or

B) Except as provided in subsection (b)(2)(C) of this Section, regulation as used oil under this Part, if the resultant mixture does not exhibit any characteristics of hazardous waste identified under 35 Ill. Adm. Code 721.Subpart C.

C) Regulation as used oil under this Part, if the mixture is of used oil and a waste which is hazardous solely because it exhibits the characteristic of ignitability (e.g., ignitable-only mineral spirits), provided that the resultant mixture does not exhibit the characteristic of ignitability under 35 Ill. Adm. Code 721.121.

3) Conditionally exempt small quantity generator hazardous waste. A mixture of used oil and conditionally exempt small quantity generator hazardous waste regulated under 35 Ill. Adm. Code 721.105 is subject to regulation as used oil under this Part.

c) Materials containing or otherwise contaminated with used oil.

1) Except as provided in subsection (c)(2) of this Section, a material containing or otherwise contaminated with used oil from which the used oil has been properly drained or removed to the extent possible such that no visible signs of free-flowing oil remain in or on the material:

A) Is not used oil, and thus, it is not subject to this Part, and

B) If applicable, is subject to the hazardous waste regulations of 35 Ill. Adm. Code 703, 705, 720 through 726, and 728.

2) A material containing or otherwise contaminated with used oil that is burned for energy recovery is subject to regulation as used oil under this Part.

3) Used oil drained or removed from materials containing or otherwise contaminated with used oil is subject to regulation as used oil under this Part.

d) Mixtures of used oil with products.

1) Except as provided in subsection (d)(2) ~~below~~of this Section, mixtures of used oil and fuels or other fuel products are subject to regulation as used oil under this Part.

2) Mixtures of used oil and diesel fuel mixed on-site by the generator of the used oil for use in the generator's own vehicles are not subject to this Part once the used oil and diesel fuel have been mixed. Prior to mixing, the used oil is subject to the requirements of Subpart C of this Part.

e) Materials derived from used oil.

1) Materials that are reclaimed from used oil that are used beneficially and are not burned for energy recovery or used in a manner constituting disposal (e.g., re-refined lubricants) are:

A) Not used oil and thus are not subject to this Part, and

B) Not solid wastes and are thus not subject to the hazardous waste regulations of ~~Parts~~ 35 Ill. Adm. Code 703, 720 through 726, and 728 as provided in 35 Ill. Adm. Code 721.103(e)(1).

2) Materials produced from used oil that are burned for energy recovery (e.g., used oil fuels) are subject to regulation as used oil under this Part.

3) Except as provided in subsection (e)(4) ~~below~~of this Section, materials derived from used oil that are disposed of or used in a manner constituting disposal are:

A) Not used oil and thus are not subject to this Part, and

B) Are solid wastes and thus are subject to the hazardous waste regulations of 35 Ill. Adm. Code 703, 720 through 726, and 728 if the materials are listed or identified as hazardous waste.

4) Used oil re-refining distillation bottoms that are used as feedstock to manufacture asphalt products are not subject to this Part.

f) Wastewater. Wastewater, the discharge of which is subject to regulation under either Section 402 or Section 307(b) of the Clean Water Act (including wastewaters at facilities which have eliminated the discharge of wastewater), contaminated with de minimis quantities of used oil are not subject to the requirements of this Part. For purposes of this subsection, "de minimis" quantities of used oils are defined as small spills, leaks, or drippings from pumps, machinery, pipes, and other similar equipment during normal operations or small amounts of oil lost to the wastewater treatment system during washing or draining operations. This exception will not apply if the used oil is discarded as a result of abnormal manufacturing operations resulting in substantial leaks, spills, or other releases, or to used oil recovered from wastewaters.

g) Used oil introduced into crude oil pipelines or a petroleum refining facility.

1) Used oil mixed with crude oil or natural gas liquids (e.g., in a production separator or crude oil stock tank) for insertion into a crude oil pipeline is exempt from the requirements of this Part. The used oil is subject to the requirements of this Part prior to the mixing of used oil with crude oil or natural gas liquids.

2) Mixtures of used oil and crude oil or natural gas liquids containing less than 1% used oil that are being stored or transported to a crude oil pipeline or petroleum refining facility for insertion into the refining process at a point prior to crude distillation or catalytic cracking are exempt from the requirements of this Part.

3) Used oil that is inserted into the petroleum refining process before crude distillation or catalytic cracking without prior mixing with crude oil is exempt from the requirements of this Part, provided that the used oil contains less than 1% of the crude oil feed to any petroleum refining facility process unit at any

given time. Prior to insertion into the petroleum refining process, the used oil is subject to the requirements of this Part.

4) Except as provided in subsection (g)(5) ~~below~~of this Section, used oil that is introduced into a petroleum refining facility process after crude distillation or catalytic cracking is exempt from the requirements of this Part only if the used oil meets the specification of Section 739.111. Prior to insertion into the petroleum refining facility process, the used oil is subject to the requirements of this Part.

5) Used oil that is incidentally captured by a hydrocarbon recovery system or wastewater treatment system as part of routine process operations at a petroleum refining facility and inserted into the petroleum refining facility process is exempt from the requirements of this Part. This exemption does not extend to used oil that is intentionally introduced into a hydrocarbon recovery system (e.g., by pouring collected used oil into the wastewater treatment system).

6) Tank bottoms from stock tanks containing exempt mixtures of used oil and crude oil or natural gas liquids are exempt from the requirements of this Part.

h) Used oil on vessels. Used oil produced on vessels from normal shipboard operations is not subject to this Part until it is transported ashore.

i) Used oil containing PCBs. In addition to the requirements of this Part, a marketer or burner of used oil that markets used oil containing any quantifiable level of PCBs is subject to the requirements of 40 CFR 761.20(e).

(Source: Amended at 21 Ill. Reg. _____, effective _____)