POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

1) Heading of the Part: Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities

2) Code Citation: 35 Ill. Adm. Code 724

3)

Section Numbers:	Proposed Actions:
724.171	Amendment
724.194	Amendment
724.244	Amendment
724.245	Amendment
724.414	Amendment
724.670	Amendment
724.671	Amendment
724.933	Amendment
724.934	Amendment
724.935	Amendment
724.936	Amendment
724.981	Amendment
724.982	Amendment
724.986	Amendment
724.1101	Amendment
724.1102	Amendment

4) Statutory Authority: 415 ILCS 5/7.2, 22.4, and 27

5) A Complete Description of Subjects and Issues Involved: The amendments to Part 724 are a single segment of the docket R16-7 rulemaking that also affects 35 Ill. Adm. Code 703, 720, 721, 722, 725, 726, 727, 728, and 733, each of which is covered by a separate notice in this issue of the *Illinois Register*. To save space, a more detailed description of the subjects and issues involved in the docket R16-7 rulemaking in this issue of the *Illinois Register* only in the answer to question 5 is stated in the Notice of Adopted Amendments for 35 Ill. Adm. Code 703. A comprehensive description is contained in the Board's opinion and order of March 3, 2016, proposing amendments in docket R16-7, which opinion and order is available from the address below.

Specifically, the amendments to Part 724 are corrections and clarifying amendments that are not directly derived from the instant federal amendments. This includes correction of an error, at the request of Joint Committee on Administrative Rules (JCAR) staff, that the Board was to have completed in a prior rulemaking. This also includes corrections

submitted by USEPA as a result of review of the rules for the purpose of authorization of the Illinois RCRA Subtitle C program.

Tables appear in the Board's opinion and order of March 3, 2016 in docket R16-7 that list numerous corrections and amendments that are not based on current federal amendments. The tables contain deviations from the literal text of the federal amendments underlying these amendments, as well as corrections and clarifications that the Board made in the base text involved. Persons interested in the details of those corrections and amendments should refer to the March 3, 2016 opinion and order in docket R16-7.

Section 22.4 of the Environmental Protection Act [415 ILCS 5/22.4] provides that Section 5-35 of the Administrative Procedure Act [5 ILCS 100/5-35] does not apply to this rulemaking. Because this rulemaking is not subject to Section 5-35 of the APA, it is not subject to First Notice or to Second Notice review by JCAR.

6) Published studies or reports, and sources of underlying data, used to compose this rulemaking: None

7) Will this rulemaking replace any emergency rule currently in effect? No

8) Does this rulemaking contain an automatic repeal date? No

9) Does this rulemaking contain incorporations by reference? No

10) Are there any other rulemakings pending on this Part? No

11) Statement of Statewide Policy Objective: These proposed amendments do not create or enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act [30 ILCS 805].

12) Time, Place and Manner in which interested persons may comment on this proposed rulemaking: The Board will accept written public comment on this proposal for a period of 45 days after the date of this publication. Comments should reference docket R16-7 and be addressed to:

John T. Therriault, Clerk
Illinois Pollution Control Board
State of Illinois Center, Suite 11-500
100 W. Randolph St.
Chicago IL 60601

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

Please direct inquiries to the following person and reference docket R16-7:

Michael J. McCambridge
Staff Attorney
Illinois Pollution Control Board
100 W. Randolph 11-500
Chicago IL 60601

312/814-6924
E-mail: michael.mccambridge@illinois.gov

Request copies of the Board's opinion and order at 312-814-3620, or download a copy from the Board's Website at http:\\www.ipcb.state.il.us.

13) Initial regulatory flexibility analysis:

A) Types of small businesses, small municipalities, and not-for-profit corporations affected: This rulemaking may affect those small businesses, small municipalities, and not-for-profit corporations that generate, transport, treat, store, or dispose of hazardous waste. These proposed amendments do not create or enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act [30 ILCS 805].

B) Reporting, bookkeeping or other procedures required for compliance: The existing rules and proposed amendments require extensive reporting, bookkeeping and other procedures, including the preparation of manifests and annual reports, waste analyses and maintenance of operating records. These proposed amendments do not create or enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act [30 ILCS 805].

C) Types of professional skills necessary for compliance: Compliance with the existing rules and proposed amendments may require the services of an attorney, certified public accountant, chemist, and registered professional engineer. These proposed amendments do not create or enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act [30 ILCS 805].

14) Regulatory Agenda on which this rulemaking was summarized: December 4, 2015, 39 Ill. Reg. 15637-39

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

The full text of the Proposed Amendments begins on the next page:

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

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

SUBPART A: GENERAL PROVISIONS

SUBPART B: GENERAL FACILITY STANDARDS

SUBPART C: PREPAREDNESS AND PREVENTION

SUBPART D: CONTINGENCY PLAN AND EMERGENCY PROCEDURES

724.213	Closure; Time Allowed For Closure
724.214	Disposal or Decontamination of Equipment, Structures, and Soils
724.215	Certification of Closure
724.216	Survey Plat
724.217	Post-Closure Care and Use of Property
724.218	Post-Closure Care Plan; Amendment of Plan
724.219	Post-Closure Notices
724.220	Certification of Completion of Post-Closure Care

SUBPART H: FINANCIAL REQUIREMENTS

Section	
724.240	Applicability
724.241	Definitions of Terms as Used in This Subpart
724.242	Cost Estimate for Closure
724.243	Financial Assurance for Closure
724.244	Cost Estimate for Post-Closure Care
724.245	Financial Assurance for Post-Closure Care
724.246	Use of a Mechanism for Financial Assurance of Both Closure and Post-Closure Care
724.247	Liability Requirements
724.248	Incapacity of Owners or Operators, Guarantors, or Financial Institutions
724.251	Wording of the Instruments

SUBPART I: USE AND MANAGEMENT OF CONTAINERS

Section	
724.270	Applicability
724.271	Condition of Containers
724.272	Compatibility of Waste with Container
724.273	Management of Containers
724.274	Inspections
724.275	Containment
724.276	Special Requirements for Ignitable or Reactive Waste
724.277	Special Requirements for Incompatible Wastes
724.278	Closure
724.279	Air Emission Standards

SUBPART J: TANK SYSTEMS

Section	
724.290	Applicability
724.291	Assessment of Existing Tank System Integrity

SUBPART K: SURFACE IMPOUNDMENTS

SUBPART L: WASTE PILES

SUBPART M: LAND TREATMENT

SUBPART N: LANDFILLS

SUBPART O: INCINERATORS

Section

724.1200	Applicability
724.1201	Design and Operating Standards
724.1202	Closure and Post-Closure Care

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

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

SOURCE: Adopted in R82-19 at 7 Ill. Reg. 14059, effective October 12, 1983; amended in R84-9 at 9 Ill. Reg. 11964, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 1136, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 14119, effective August 12, 1986; amended in R86-28 at 11 Ill. Reg. 6138, effective March 24, 1987; amended in R86-28 at 11 Ill. Reg. 8684, effective April 21, 1987; amended in R86-46 at 11 Ill. Reg. 13577, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19397, effective November 12, 1987; amended in R87-39 at 12 Ill. Reg. 13135, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 458, effective December 28, 1988; amended in R89-1 at 13 Ill. Reg. 18527, effective November 13, 1989; amended in R90-2 at 14 Ill. Reg. 14511, effective August 22, 1990; amended in R90-10 at 14 Ill. Reg. 16658, effective September 25, 1990; amended in R90-11 at 15 Ill. Reg. 9654, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14572, effective October 1, 1991; amended in R91-13 at 16 Ill. Reg. 9833, effective June 9, 1992; amended in R92-1 at 16 Ill. Reg. 17702, effective November 6, 1992; amended in R92-10 at 17 Ill. Reg. 5806, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20830, effective November 22, 1993; amended in R93-16 at 18 Ill. Reg. 6973, effective April 26, 1994; amended in R94-7 at 18 Ill. Reg. 12487, effective July 29, 1994; amended in R94-17 at 18 Ill. Reg. 17601, effective November 23, 1994; amended in R95-6 at 19 Ill. Reg. 9951, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 11244, effective August 1, 1996; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 636, effective December 16, 1997; amended in R98-12 at 22 Ill. Reg. 7638, effective April 15, 1998; amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. 17972, effective September 28, 1998; amended in R98-21/R99-2/R99-7 at 23 Ill. Reg. 2186, effective January 19, 1999; amended in R99-15 at 23 Ill. Reg. 9437, effective July 26, 1999; amended in R00-5 at 24 Ill. Reg. 1146, effective January 6, 2000; amended in R00-13 at 24 Ill. Reg. 9833, effective June 20, 2000; expedited correction at 25 Ill. Reg. 5115, effective June 20, 2000; amended in R02-1/R02-12/R02-17 at 26 Ill. Reg. 6635, effective April 22, 2002; amended in R03-7 at 27 Ill. Reg. 3725, effective February 14, 2003; amended in R05-8 at 29 Ill. Reg. 6009, effective April 13, 2005; amended in R05-2 at 29 Ill. Reg. 6365, effective April 22, 2005; amended in R06-5/R06-6/R06-7 at 30 Ill. Reg. 3196, effective February 23, 2006; amended in R06-16/R06-17/R06-18 at 31 Ill. Reg. 893, effective December 20, 2006; amended in R07-5/R07-14 at 32 Ill. Reg. 12365, effective July 14,

2008; amended in R09-3 at 33 Ill. Reg. 1106, effective December 30, 2008; amended in R09-16/R10-4 at 34 Ill. Reg. 18873, effective November 12, 2010; amended in R11-2/R11-16 at 35 Ill. Reg. 17965, effective October 14, 2011; amended in R13-15 at 37 Ill. Reg. 17773, effective October 24, 2013; amended in R15-1 at 39 Ill. Reg. 1724, effective January 12, 2015; amended in R16-7 at 40 Ill. Reg. _____, effective _____.

SUBPART E: MANIFEST SYSTEM, RECORDKEEPING AND REPORTING

Section 724.171 Use of Manifest System

a) Receipt of manifested hazardous waste.

1) If a facility receives hazardous waste accompanied by a manifest, the owner, operator, or its agent must sign and date the manifest, as indicated in subsection (a)(2) ~~of this Section~~, to certify that the hazardous waste covered by the manifest was received, that the hazardous waste was received except as noted in the discrepancy space of the manifest, or that the hazardous waste was rejected as noted in the manifest discrepancy space.

2) If a facility receives a hazardous waste shipment accompanied by a manifest, the owner, operator, or its agent must do the following:

A) The owner, operator, or agent must sign and date, by hand, each copy of the manifest;

B) The owner, operator, or agent must note any discrepancies (as defined in Section 724.172~~725.172~~) on each copy of the manifest;

C) The owner, operator, or agent must immediately give the transporter at least one copy of the manifest;

D) The owner, operator, or agent must send a copy (Page 3) of the manifest to the generator within 30 days after delivery;

E) Within 30 days after delivery, the owner, operator, or agent must send the top copy (Page 1) of the manifest to the e-Manifest System for purposes of data entry and processing. In lieu of mailing this paper copy to the e-Manifest System operator, the owner or operator may transmit to the e-Manifest System operator an image file of Page 1 of the manifest, or both a data string file and the image file corresponding to Page 1 of the manifest. Any data or image files transmitted to USEPA under this subsection (a)

must be submitted in data file and image file formats that are acceptable to USEPA and that are supported by USEPA's electronic reporting requirements and by the e-Manifest System; and

F) The owner, operator, or agent must retain at the facility a copy of each manifest for at least three years after the date of delivery.

3) If a facility receives hazardous waste imported from a foreign source, the receiving facility must mail a copy of the manifest and documentation confirming USEPA's consent to the import of hazardous waste to the following address within 30 days after delivery: Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW, Washington, DC 20460.

b) If a facility receives, from a rail or water (bulk shipment) transporter, hazardous waste that is accompanied by a shipping paper containing all the information required on the manifest (excluding the USEPA identification numbers, generator's certification, and signatures), the owner or operator, or the owner or operator's agent, must do the following:

1) It must sign and date each copy of the manifest or shipping paper (if the manifest has not been received) to certify that the hazardous waste covered by the manifest or shipping paper was received;

2) It must note any significant discrepancies (as defined in Section 724.172(a)) in the manifest or shipping paper (if the manifest has not been received) on each copy of the manifest or shipping paper;

BOARD NOTE: The Board does not intend that the owner or operator of a facility whose procedures under Section 724.113(c) include waste analysis must perform that analysis before signing the shipping paper and giving it to the transporter. Section 724.172(b), however, requires reporting an unreconciled discrepancy discovered during later analysis.

3) It must immediately give the rail or water (bulk shipment) transporter at least one copy of the manifest or shipping paper (if the manifest has not been received);

4) The owner or operator must send a copy of the signed and dated manifest or a signed and dated copy of the shipping paper (if the manifest has not

been received within 30 days after delivery) to the generator within 30 days after the delivery; and

BOARD NOTE: Section 722.123(c) requires the generator to send three copies of the manifest to the facility when hazardous waste is sent by rail or water (bulk shipment).

5) Retain at the facility a copy of the manifest and shipping paper (if signed in lieu of the manifest at the time of delivery) for at least three years from the date of delivery.

c) Whenever a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility must comply with the requirements of 35 Ill. Adm. Code 722.

BOARD NOTE: The provisions of 35 Ill. Adm. Code 722.134 are applicable to the on-site accumulation of hazardous wastes by generators. Therefore, the provisions of Section 722.134 only apply to owners or operators that are shipping hazardous waste that they generated at that facility.

d) Within three working days after the receipt of a shipment subject to Subpart H of 35 Ill. Adm. Code 722, the owner or operator of a facility must provide a copy of the movement document bearing all required signatures to the exporter; to the Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), Environmental Protection Agency, 1200 Pennsylvania Ave., NW, Washington, DC 20460; to the Bureau of Land, Division of Land Pollution Control, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, IL 62794-9276; and to competent authorities of all other concerned countries. The original copy of the movement document must be maintained at the facility for at least three years from the date of signature.

e) A facility must determine whether the consignment state for a shipment regulates any additional wastes (beyond those regulated federally) as hazardous wastes under its state hazardous waste program. A facility must also determine whether the consignment state or generator state requires the facility to submit any copies of the manifest to that state.

f) Legal equivalence to paper manifests. E-Manifests that are obtained, completed, transmitted in accordance with 35 Ill. Adm. Code 722.120(a)(3), and used in accordance with this Section in lieu of the paper manifest form are the legal equivalent of paper manifest forms bearing handwritten signatures, and satisfy for

all purposes any requirement in 35 Ill. Adm. Code 720 through 728 to obtain, complete, sign, provide, use, or retain a manifest.

1) Any requirement in 35 Ill. Adm. Code 720 through 728 for the owner or operator of a facility to sign a manifest or manifest certification by hand, or to obtain a handwritten signature, is satisfied by signing with or obtaining a valid and enforceable electronic signature within the meaning of 35 Ill. Adm. Code 722.125.

2) Any requirement in 35 Ill. Adm. Code 720 through 728 to give, provide, send, forward, or to return to another person a copy of the manifest is satisfied when a copy of an e-Manifest is transmitted to the other person.

3) Any requirement in 35 Ill. Adm. Code 720 through 728 for a manifest to accompany a hazardous waste shipment is satisfied when a copy of an e-Manifest is accessible during transportation and forwarded to the person or persons who are scheduled to receive delivery of the hazardous waste shipment.

4) Any requirement in 35 Ill. Adm. Code 720 through 728 for an owner or operator to keep or retain a copy of each manifest is satisfied by the retention of the facility's e-Manifest copies in its account on the e-Manifest System, provided that such copies are readily available for viewing and production if requested by any USEPA or Agency inspector.

5) No owner or operator may be held liable for the inability to produce an e-Manifest for inspection under this Section if the owner or operator can demonstrate that the inability to produce the e-Manifest is due exclusively to a technical difficulty with the e-Manifest System for which the owner or operator bears no responsibility.

g) An owner or operator may participate in the e-Manifest System either by accessing the e-Manifest System from the owner's or operator's electronic equipment, or by accessing the e-Manifest System from portable equipment brought to the owner's or operator's site by the transporter that delivers the waste shipment to the facility.

h) Special procedures applicable to replacement manifests. If a facility receives hazardous waste that is accompanied by a paper replacement manifest for a manifest that was originated electronically, the following procedures apply to the delivery of the hazardous waste by the final transporter:

1) Upon delivery of the hazardous waste to the designated facility, the owner or operator must sign and date each copy of the paper replacement

manifest by hand in Item 20 (Designated Facility Certification of Receipt) and note any discrepancies in Item 18 (Discrepancy Indication Space) of the paper replacement manifest;

2) The owner or operator of the facility must give back to the final transporter one copy of the paper replacement manifest;

3) Within 30 days after delivery of the hazardous waste to the designated facility, the owner or operator of the facility must send one signed and dated copy of the paper replacement manifest to the generator and send an additional signed and dated copy of the paper replacement manifest to the e-Manifest System; and

4) The owner or operator of the facility must retain at the facility one copy of the paper replacement manifest for at least three years after the date of delivery.

i) Special procedures applicable to electronic signature methods undergoing tests. If an owner or operator using an e-Manifest signs this manifest electronically using an electronic signature method that is undergoing pilot or demonstration tests aimed at demonstrating the practicality or legal dependability of the signature method, the owner or operator must also sign with an ink signature the facility's certification of receipt or discrepancies on the printed copy of the manifest provided by the transporter. Upon executing its ink signature on this printed copy, the owner or operator must retain this original copy among its records for at least three years after the date of delivery of the waste.

j) Imposition of user fee for e-Manifest use. An owner or operator that is a user of the e-Manifest System may be assessed a user fee by USEPA for the origination or processing of each e-Manifest. An owner or operator may also be assessed a user fee by USEPA for the collection and processing of paper manifest copies that owners or operators must submit to the e-Manifest System operator under subsection ~~724.171~~(a)(2)(E). USEPA has stated that it would maintain and update from time-to-time the current schedule of e-Manifest System user fees, which will be determined based on current and projected e-Manifest System costs and level of use of the e-Manifest System. USEPA has said that it would publish the current schedule of e-Manifest user fees as an appendix to 40 CFR 262.

k) E-Manifest signatures. E-Manifest signatures must meet the criteria described in 35 Ill. Adm. Code 722.125.

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

SUBPART F: RELEASES FROM SOLID WASTE MANAGEMENT UNITS

Section 724.194 Concentration Limits

a) The Agency must specify in the facility permit concentration limits in the groundwater for hazardous constituents established under Section 724.193. The following must be true of the concentration of a hazardous constituent:

1) It must not exceed the background level of that constituent in the groundwater at the time that limit is specified in the permit; or

2) For any of the constituents listed in Table 1, it must not exceed the respective value given in that Table if the background level of the constituent is below the value given in Table 1; or

3) It must not exceed an alternative limit established by the Agency under subsection (b) ~~of this Section~~.

TABLE 1 – MAXIMUM CONCENTRATION OF CONSTITUENTS FOR GROUNDWATER PROTECTION

Constituent	Maximum Concentration (mg/ℓ)
Arsenic (CAS No. 7440-38-2)	0.05
Barium (CAS No. 7440-39-3)	1.0
Cadmium (CAS No. 7440-43-9)	0.01
Chromium (CAS No. 7440-47-3)	0.05
Lead (CAS No. 7439-92-1)	0.05
Mercury (CAS No. 7439-97-6)	0.002
Selenium(CAS No. 7782-49-2)	0.01
Silver (CAS No. 7440-22-4)	0.05
Endrin (1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo,endo-1,4:5,8-dimethanonaphthalene) (CAS No. 72-20-8)	0.0002
Lindane (1,2,3,4,5,6-hexachlorocyclohexane, gamma isomer) (CAS No. 58-89-9)	0.004
Methoxychlor (1,1,1-Trichloro-2,2-bis(p-methoxyphenyl)ethane) (CAS No. 72-43-5)~~(1,1,1-Trichloro-2,2'-bis-(p-methoxyphenyl)ethane)~~	0.1
Toxaphene ($C_{10}H_{10}Cl_6$, Technical chlorinated camphene, 67-69 percent chlorine) (CAS	0.005

No. 8001-35-2)	
2,4-D (2,4-Dichlorophenoxyacetic acid) (CAS No. 94-75-7)	0.1
2,4,5-TP (Silvex) (2,4,5-Trichlorophenoxy-propionic acid) (CAS No. 93-72-1)	0.01

b) The Agency must establish an alternative concentration limit for a hazardous constituent if it finds that the constituent will not pose a substantial present or potential hazard to human health or the environment as long as the alternative concentration limit is not exceeded. In establishing alternate concentration limits, the Agency must consider the following factors:

1) Potential adverse effects on groundwater quality, considering the following:

A) The physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;

B) The hydrogeological characteristics of the facility and surrounding land;

C) The quantity of groundwater and the direction of groundwater flow;

D) The proximity and withdrawal rates of groundwater users;

E) The current and future uses of groundwater in the area;

F) The existing quality of groundwater, including other sources of contamination and their cumulative impact on the groundwater quality;

G) The potential for health risks caused by human exposure to waste constituents;

H) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;

I) The persistence and permanence of the potential adverse effects; and

2) Potential adverse effects on hydraulically-connected surface-water quality, considering the following:

A) The volume and physical and chemical characteristics of the waste in the regulated unit;

B) The hydrogeological characteristics of the facility and surrounding land;

C) The quantity and quality of groundwater and the direction of groundwater flow;

D) The patterns of rainfall in the region;

E) The proximity of the regulated unit to surface waters;

F) The current and future uses of surface waters in the area and any water quality standards established for those surface waters;

G) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface-water quality;

H) The potential for health risks caused by human exposure to waste constituents;

I) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

J) The persistence and permanence of the potential adverse effects.

c) In making any determination under subsection (b) ~~of this Section~~ about the use of groundwater in the area around the facility, the Agency must consider any identification of underground sources of drinking water and exempted aquifers made under 35 Ill. Adm. Code 704.123.

d) The Agency must make specific written findings in setting any alternate concentration limits under subsection (b) ~~of this Section~~.

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

SUBPART H: FINANCIAL REQUIREMENTS

Section 724.244 Cost Estimate for Post-Closure Care

a) The owner or operator of a disposal surface impoundment, disposal miscellaneous

unit, land treatment unit, or landfill unit or the owner or operator of a surface impoundment or waste pile required under Sections 724.328 or 724.358 to prepare a contingent closure and post-closure plan must have a defined written estimate, in current dollars, of the annual cost of post-closure monitoring and maintenance of the facility in accordance with the applicable post-closure regulations in Sections 724.217 through 724.220, 724.328, 724.358, 724.380, 724.410, and 724.703~~724.603~~.

1) The post-closure cost estimate must be based on the costs to the owner or operator of hiring a third party to conduct post-closure care activities. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. (See definition of parent corporation in Section 724.241(d)).

2) The post-closure cost estimate is calculated by multiplying the annual post-closure cost estimate by the number of years of post-closure care required under Section 724.217.

b) During the active life of the facility, the owner or operator must adjust the post-closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instruments used to comply with Section 724.245. For owners or operators using the financial test or corporate guarantee, the post-closure cost estimate must be updated for inflation within 30 days after the close of the firm's fiscal year and before the submission of updated information to the Agency, as specified in Section 724.245(f)(5). The adjustment may be made by recalculating the post-closure cost estimate in current dollars or by using an inflation factor derived from the annual Implicit Price Deflator for Gross National Product, as published by the U.S. Department of Commerce in its Survey of Current Business, as specified in subsections (b)(1) and (b)(2) ~~of this Section~~. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

1) The first adjustment is made by multiplying the post-closure cost estimate by the inflation factor. The result is the adjusted post-closure cost estimate.

2) Subsequent adjustments are made by multiplying the latest adjusted post-closure cost estimate by the latest inflation factor.

c) During the active life of the facility the owner or operator must revise the post-closure cost estimate within 30 days after the Agency has approved a request to modify the post-closure plan if the change in the post-closure plan increases the cost of post-closure care. The revised post-closure cost estimate must be adjusted for inflation, as specified in Section 724.244(b).

d) The owner or operator must keep the following at the facility during the operating life of the facility: The latest post-closure cost estimate prepared in accordance with Section 724.244(a) and (c) and, when this estimate has been adjusted in accordance with Section 724.244(b), the latest adjusted post-closure cost estimate.

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

Section 724.245 Financial Assurance for Post-Closure Care

An owner or operator of a hazardous waste management unit subject to the requirements of Section 724.244 must establish financial assurance for post-closure care in accordance with the approved post-closure plan for the facility 60 days prior to the initial receipt of hazardous waste or the effective date of the regulation, whichever is later. The owner or operator must choose from among the following options:

a) Post-closure trust fund.

1) An owner or operator may satisfy the requirements of this Section by establishing a post-closure trust fund that conforms to the requirements of this subsection (a) and submitting an original, signed duplicate of the trust agreement to the Agency. An owner or operator of a new facility must submit the original, signed duplicate of the trust agreement to the Agency at least 60 days before the date on which hazardous waste is first received for disposal. The trustee must be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or State agency.

2) The wording of the trust agreement must be that specified in Section 724.251 and the trust agreement accompanied by a formal certification of acknowledgment (as specified in Section 724.251). Schedule A of the trust agreement must be updated within 60 days after a change in the amount of the current post-closure cost estimate covered by the agreement.

3) Payments into the trust fund must be made annually by the owner or operator over the term of the initial RCRA permit or over the remaining operating life of the facility as estimated in the closure plan, whichever period is shorter; this period is hereafter referred to as the "pay-in period." The payments into the post-closure trust fund must be made as follows:

A) For a new facility, the first payment must be made before the initial receipt of hazardous waste for disposal. A receipt from the trustee for this payment must be submitted by the owner or

operator to the Agency before this initial receipt of hazardous waste. The first payment must be at least equal to the current post-closure cost estimate, except as provided in subsection (g) ~~of this Section~~, divided by the number of years in the pay-in period. Subsequent payments must be made no later than 30 days after each anniversary date of the first payment. The amount of each subsequent payment must be determined by the following formula:

$$\text{Next Payment} = \frac{(CE - CV)}{Y}$$

Where:

CE = the current closure cost estimate
CV = the current value of the trust fund
Y = the number of years remaining in the pay-in period

B) If an owner or operator establishes a trust fund, as specified in 35 Ill. Adm. Code 725.245(a), and the value of that trust fund is less than the current post-closure cost estimate when a permit is awarded for the facility, the amount of the current post-closure cost estimate still to be paid into the trust fund must be paid in over the pay-in period as defined in subsection (a)(3) ~~of this Section~~. Payments must continue to be made no later than 30 days after each anniversary date of the first payment made pursuant to 35 Ill. Adm. Code 725. The amount of each payment must be determined by the following formula:

$$\text{Next Payment} = \frac{(CE - CV)}{Y}$$

Where:

CE = the current closure cost estimate
CV = the current value of the trust fund
Y = the number of years remaining in the pay-in period

4) The owner or operator may accelerate payments into the trust fund or may deposit the full amount of the current post-closure cost estimate at the time the fund is established. However, the owner or operator must maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in subsection (a)(3) ~~of this Section~~.

5) If the owner or operator establishes a post-closure trust fund after having used one or more alternative mechanisms specified in this Section or in 35 Ill. Adm. Code 725.245, its first payment must be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made according to specifications of this subsection (a) and 35 Ill. Adm. Code 725.245, as applicable.

6) After the pay-in period is completed, whenever the current post-closure cost estimate changes during the operating life of the facility, the owner or operator must compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, must either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current post-closure cost estimate, or obtain other financial assurance, as specified in this Section, to cover the difference.

7) During the operating life of the facility, if the value of the trust fund is greater than the total amount of the current post-closure cost estimate, the owner or operator may submit a written request to the Agency for release of the amount in excess of the current post-closure cost estimate.

8) If an owner or operator substitutes other financial assurance as specified in this Section for all or part of the trust fund, it may submit a written request to the Agency for release of the amount in excess of the current post-closure cost estimate covered by the trust fund.

9) Within 60 days after receiving a request from the owner or operator for release of funds, as specified in subsection (a)(7) or (a)(8) ~~of this Section~~, the Agency must instruct the trustee to release to the owner or operator such funds as the Agency specifies in writing.

10) During the period of post-closure care, the Agency must approve a release of funds if the owner or operator demonstrates to the Agency that the value of the trust fund exceeds the remaining cost of post-closure care.

11) An owner or operator or any other person authorized to perform post-closure care may request reimbursement for post-closure care expenditures by submitting itemized bills to the Agency. Within 60 days after receiving bills for post-closure activities, the Agency must instruct the trustee to make requirements in those amounts that the Agency specifies in writing if the Agency determines that the post-closure care expenditures are in

accordance with the approved post-closure plan or otherwise justified. If the Agency does not instruct the trustee to make such reimbursements, the Agency must provide the owner or operator with a detailed written statement of reasons.

12) The Agency must agree to termination of the trust when either of the following occurs:

A) An owner or operator substitutes alternative financial assurance, as specified in this Section; or

B) The Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) ~~of this Section~~.

b) Surety bond guaranteeing payment into a post-closure trust fund.

1) An owner or operator may satisfy the requirements of this Section by obtaining a surety bond that conforms to the requirements of this subsection (b) and submitting the bond to the Agency. An owner or operator of a new facility must submit the bond to the Agency at least 60 days before the date on which hazardous waste is first received for disposal. The bond must be effective before this initial receipt of hazardous waste. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on federal bonds in Circular 570 of the U.S. Department of the Treasury.

BOARD NOTE: The U.S. Department of the Treasury updates Circular 570, "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies," on an annual basis pursuant to 31 CFR 223.16. Circular 570 is available on the Internet from the following website: http://www.fms.treas.gov/c570/.

2) The wording of the surety bond must be that specified in Section 724.251.

3) The owner or operator who uses a surety bond to satisfy the requirements of this Section must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Agency. This standby trust fund must meet the requirements specified in subsection (a) ~~of this Section~~, except as follows:

A) An original, signed duplicate of the trust agreement must be submitted to the Agency with the surety bond; and

B) Until the standby trust fund is funded pursuant to the requirements of this Section, the following are not required by these regulations:

i) Payments into the trust fund, as specified in subsection (a) ~~of this Section~~;

ii) Updating of Schedule A of the trust agreement (as specified in Section 724.251) to show current post-closure cost estimates;

iii) Annual valuations, as required by the trust agreement; and

iv) Notices of nonpayment, as required by the trust agreement.

4) The bond must guarantee that the owner or operator will do one of the following:

A) Fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility;

B) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an order to begin closure is issued by the Board or a U.S. district court or other court of competent jurisdiction; or

C) Provide alternative financial assurance as specified in this Section, and obtain the Agency's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Agency of a notice of cancellation of the bond from the surety.

5) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

6) The penal sum of the bond must be in an amount at least equal to the current post-closure cost estimate, except as provided in subsection (g) ~~of this Section~~.

7) Whenever the current post-closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at

least equal to the current post-closure cost estimate and submit evidence of such increase to the Agency or obtain other financial assurance, as specified in this Section, to cover the increase. Whenever the current post-closure cost estimate decreases, the penal sum may be reduced to the amount of the current post-closure cost estimate following written approval by the Agency.

8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Agency. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Agency, as evidence by the return receipts.

9) The owner or operator may cancel the bond if the Agency has given prior written consent based on its receipt of evidence of alternative financial assurance, as specified in this Section.

c) Surety bond guaranteeing performance of post-closure care.

1) An owner or operator may satisfy the requirements of this Section by obtaining a surety bond that conforms to the requirements of this subsection (c) and submitting the bond to the Agency. An owner or operator of a new facility must submit the bond to the Agency at least 60 days before the date on which hazardous waste is first received for disposal. The bond must be effective before this initial receipt of hazardous waste. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on federal bonds in Circular 570 of the U.S. Department of the Treasury.

BOARD NOTE: The U.S. Department of the Treasury updates Circular 570, "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies," on an annual basis pursuant to 31 CFR 223.16. Circular 570 is available on the Internet from the following website: http://www.fms.treas.gov/c570/.

2) The wording of the surety bond must be that specified in Section 724.251.

3) The owner or operator who uses a surety bond to satisfy the requirements of this Section must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Agency. This standby trust must meet the requirements specified in subsection (a) ~~of this Section~~, except as follows:

A) An original, signed duplicate of the trust agreement must be submitted to the Agency with the surety bond; and

B) Unless the standby trust fund is funded pursuant to the requirements of this Section, the following are not required:

i) Payments into the trust fund, as specified in subsection (a) ~~of this Section~~;

ii) Updating of Schedule A of the trust agreement (as specified in Section 724.251) to show current post-closure cost estimates;

iii) Annual valuations, as required by the trust agreement; and

iv) Notices of nonpayment, as required by the trust agreement.

4) The bond must guarantee that the owner or operator will do either of the following:

A) Perform final post-closure care in accordance with the post-closure plan and other requirements of the permit for the facility; or

B) Provide alternative financial assurance, as specified in this Section, and obtain the Agency's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Agency of a notice of cancellation of the bond from the surety.

5) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond. Following a final judicial determination or Board order finding that the owner or operator has failed to perform post-closure care in accordance with the approved post-closure plan and other permit requirements, under the terms of the bond the surety will perform post-closure care in accordance with post-closure plan and other permit requirements or will deposit the amount of the penal sum into the standby trust fund.

6) The penal sum of the bond must be in an amount at least equal to the current post-closure cost estimate.

7) Whenever the current post-closure cost estimate increases to an amount greater than the penal sum during the operating life of the facility, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Agency, or obtain other financial assurance, as specified in this Section. Whenever the current closure cost estimate decreases during the operating life of the facility, the penal sum may be reduced to the amount of the current post-closure cost estimate following written approval by the Agency.

8) During the period of post-closure care, the Agency must approve a decrease in the penal sum if the owner or operator demonstrates to the Agency that the amount exceeds the remaining cost of post-closure care.

9) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Agency. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Agency, as evidenced by the return receipts.

10) The owner or operator may cancel the bond if the Agency has given prior written consent. The Agency must provide such written consent when either of the following occurs:

A) An owner or operator substitutes alternative financial assurance as specified in this Section; or

B) The Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) ~~of this Section~~.

11) The surety will not be liable for deficiencies in the performance of post-closure care by the owner or operator after the Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) ~~of this Section~~.

d) Post-closure letter of credit.

1) An owner or operator may satisfy the requirements of this Section by obtaining an irrevocable standby letter of credit that conforms to the requirements of this subsection (d) and submitting the letter to the Agency. An owner or operator of a new facility must submit the letter of credit to the Agency at least 60 days before the date on which hazardous waste is first received for disposal. The letter of credit must be effective before

this initial receipt of hazardous waste. The issuing institution must be an entity that has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a federal or State agency.

2) The wording of the letter of credit must be that specified in Section 724.251.

3) An owner or operator who uses a letter of credit to satisfy the requirements of this Section must also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Agency must be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Agency. This standby trust fund must meet the requirements of the trust fund specified in subsection (a) ~~of this Section~~, except as follows:

A) An original, signed duplicate of the trust agreement must be submitted to the Agency with the letter of credit; and

B) Unless the standby trust fund is funded pursuant to the requirements of this Section, the following are not required by these regulations:

i) Payments into the trust fund, as specified in subsection (a) ~~of this Section~~;

ii) Updating of Schedule A of the trust agreement (as specified in Section 724.251) to show current post-closure cost estimates;

iii) Annual valuations, as required by the trust agreement; and

iv) Notices of nonpayment, as required by the trust agreement.

4) The letter or credit must be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date and providing the following information: the USEPA identification number, name and address of the facility, and the amount of funds assured for post-closure care of the facility by the letter of credit.

5) The letter of credit must be irrevocable and issued for a period of at least one year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least one year unless, at least 120 days before the current expiration date, the issuing institution notifies both

the owner or operator and the Agency by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the Agency have received the notice, as evidenced by the return receipts.

6) The letter of credit must be issued in an amount at least equal to the current post-closure cost estimate, except as provided in subsection (g) ~~of this Section~~.

7) Whenever the current post-closure cost estimate increases to an amount greater than the amount of the credit during the operating life of the facility, the owner or operator, within 60 days after the increase, must either cause the amount of the credit to be increased so that it at least equals the current post-closure cost estimate and submit evidence of such increase to the Agency, or obtain other financial assurance as specified in this Section to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the amount of the credit may be reduced to the amount of the current post-closure cost estimate following written approval by the Agency.

8) During the period of post-closure care, the Agency must approve a decrease in the amount of the letter of credit if the owner or operator demonstrates to the Agency that the amount exceeds the remaining cost of post-closure care.

9) Following a final judicial determination or Board order finding that the owner or operator has failed to perform post-closure care in accordance with the approved post-closure plan and other permit requirements, the Agency may draw on the letter of credit.

10) If the owner or operator does not establish alternative financial assurance, as specified in this Section, and obtain written approval of such alternative assurance from the Agency within 90 days after receipt by both the owner or operator and the Agency of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Agency must draw on the letter of credit. The Agency may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the Agency must draw on the letter of credit if the owner or operator has failed to provide alternative financial assurance, as specified in this Section, and obtain written approval of such assurance from the Agency.

11) The Agency must return the letter of credit to the issuing institution for

termination when either of the following occurs:

A) An owner or operator substitutes alternative financial assurance, as specified in this Section; or

B) The Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) ~~of this Section~~.

e) Post-closure insurance.

1) An owner or operator may satisfy the requirements of this Section by obtaining post-closure insurance that conforms to the requirements of this subsection (e) and submitting a certificate of such insurance to the Agency. An owner or operator of a new facility must submit the certificate of insurance to the Agency at least 60 days before the date on which hazardous waste is first received for disposal. The insurance must be effective before this initial receipt of hazardous waste. At a minimum, the insurer must be licensed to transact the business of insurance or be eligible to provide insurance as an excess or surplus lines insurer in one or more states.

2) The wording of the certificate of insurance must be that specified in Section 724.251.

3) The post-closure insurance policy must be issued for a face amount at least equal to the current post-closure cost estimate, except as provided in subsection (g) ~~of this Section~~. The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

4) The post-closure insurance policy must guarantee that funds will be available to provide post-closure care of facility whenever the post-closure period begins. The policy must also guarantee that, once post-closure care begins, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Agency to such party or parties as the Agency specifies.

5) An owner or operator or any other person authorized to perform post-closure care may request reimbursement for post-closure care expenditures by submitting itemized bills to the Agency. Within 60 days after receiving bills for post-closure activities, the Agency must instruct the insurer to make reimbursement in such amounts as the Agency specifies in writing if

the Agency determines that the post-closure care expenditures are in accordance with the approved post-closure plan or otherwise justified. If the Agency does not instruct the insurer to make such reimbursements, the Agency must provide the owner or operator with a detailed written statement of reasons.

6) The owner or operator must maintain the policy in full force and effect until the Agency consents to termination of the policy by the owner or operator as specified in subsection (e)(11) ~~of this Section~~. Failure to pay the premium, without substitution of alternative financial assurance as specified in this Section, will constitute a significant violation of these regulations, warranting such remedy as the Board may impose pursuant to the Environmental Protection Act [415 ILCS 5]. Such violation will be deemed to begin upon receipt by the Agency of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

7) Each policy must contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

8) The policy must provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the Agency. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Agency and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur, and the policy will remain in full force and effect, in the event that on or before the date of expiration one of the following occurs:

A) The Agency deems the facility abandoned;

B) The permit is terminated or revoked or a new permit is denied;

C) Closure is ordered by the Board or a U.S. district court or other court of competent jurisdiction;

D) The owner or operator is named as debtor in a voluntary or

involuntary proceeding under 11 USC (Bankruptcy); or

E) The premium due is paid.

9) Whenever the current post-closure cost estimate increases to an amount greater than the face amount of the policy during the life of the facility, the owner or operator, within 60 days after the increase, must either cause the face amount to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Agency or obtain other financial assurance, as specified in this Section, to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the face amount may be reduced to the amount of the current post-closure cost estimate following written approval by the Agency.

10) Commencing on the date that liability to make payments pursuant to the policy accrues, the insurer must thereafter annually increase the face amount of the policy. Such increase must be equivalent to the face amount of the policy, less any payments made, multiplied by an amount equivalent to 85 percent of the most recent investment rate or of the equivalent coupon-issue yield announced by the U.S. Treasury for 26-week Treasury securities.

11) The Agency must give written consent to the owner or operator that the owner or operator may terminate the insurance policy when either of the following occurs:

A) An owner or operator substitutes alternative financial assurance, as specified in this Section; or

B) The Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) ~~of this Section~~.

f) Financial test and corporate guarantee for post-closure care.

1) An owner or operator may satisfy the requirements of this Section by demonstrating that it passes a financial test as specified in this subsection (f). To pass this test the owner or operator must meet the criteria of either subsection (f)(1)(A) or (f)(1)(B) ~~of this Section~~:

A) The owner or operator must have the following:

i) Two of the following three ratios: a ratio of total liabilities

to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5;

ii) Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates;

iii) Tangible net worth of at least $10 million; and

iv) Assets in the United States amounting to at least 90 percent of its total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

B) The owner or operator must have the following:

i) A current rating for its most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's;

ii) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates and current plugging and abandonment cost estimates;

iii) Tangible net worth of at least $10 million; and

iv) Assets located in the United States amounting to at least 90 percent of its total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

2) The phrase "current closure and post-closure cost estimates," as used in subsection (f)(1)~~ of this Section~~, refers to the cost estimates required to be shown in subsections 1 through 4 of the letter from the owner's or operator's chief financial officer (see Section 724.251). The phrase "current plugging and abandonment cost estimates," as used in subsection (f)(1)~~ of this Section~~, refers to the cost estimates required to be shown in subsections 1 through 4 of the letter from the owner's or operator's chief financial officer (see 35 Ill. Adm. Code 704.240).

3) To demonstrate that it meets this test, the owner or operator must submit the following items to the Agency:

A) A letter signed by the owner's or operator's chief financial officer and worded as specified in Section 724.251;

B) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

C) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating the following:

i) The accountant has compared the data that the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

ii) In connection with that procedure, no matters came to the accountant's attention that caused the accountant to believe that the specified data should be adjusted.

4) An owner or operator of a new facility must submit the items specified in subsection (f)(3) ~~of this Section~~ to the Agency at least 60 days before the date on which hazardous waste is first received for disposal.

5) After the initial submission of items specified in subsection (f)(3) ~~of this Section~~, the owner or operator must send updated information to the Agency within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in subsection (f)(3) ~~of this Section~~.

6) If the owner or operator no longer meets the requirements of subsection (f)(1) ~~of this Section~~, the owner or operator must send notice to the Agency of intent to establish alternative financial assurance, as specified in this Section. The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements the owner or operator must provide the alternative financial assurance within 120 days after the end of such fiscal year.

7) Based on a reasonable belief that the owner or operator may no longer meet the requirements of subsection (f)(1) ~~of this Section~~, the Agency may require reports of financial condition at any time from the owner or operator in addition to those specified in subsection (f)(3) ~~of this Section~~. If the Agency finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of subsection (f)(1) ~~of this Section~~, the owner or operator must provide alternative financial assurance, as specified in this Section, within 30 days after notification of such a finding.

8) The Agency may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in the accountant's report on examination of the owner's or operator's financial statements (see subsection (f)(3)(B) ~~of this Section~~). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Agency must evaluate other qualifications on an individual basis. The owner or operator must provide alternative financial assurance, as specified in this Section, within 30 days after notification of the disallowance.

9) During the period of post-closure care, the Agency must approve a decrease in the current post-closure cost estimate for which this test demonstrates financial assurance if the owner or operator demonstrates to the Agency that the amount of the cost estimate exceeds the remaining cost of post-closure care.

10) The owner or operator is no longer required to submit the items specified in subsection (f)(3) ~~of this Section~~ when either of the following occurs:

A) An owner or operator substitutes alternative financial assurance, as specified in this Section; or

B) The Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) ~~of this Section~~.

11) An owner or operator may meet the requirements of this Section by obtaining a written guarantee, hereafter referred to as "corporate guarantee." The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor must meet the requirements for owners or operators in subsections (f)(1) through (f)(9), and must comply with the terms of the corporate guarantee. The wording of the corporate guarantee must be that

specified in Section 724.251. A certified copy of the corporate guarantee must accompany the items sent to the Agency, as specified in subsection (f)(3)~~ of this Section~~. One of these items must be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter must describe this "substantial business relationship" and the value received in consideration of the guarantee. The terms of the corporate guarantee must provide as follows:

A) That if the owner or operator fails to perform post-closure care of a facility covered by the corporate guarantee in accordance with the post-closure plan and other permit requirements whenever required to do so, the guarantor will do so or establish a trust fund as specified in subsection (a)~~ of this Section~~ in the name of the owner or operator.

B) That the corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Agency. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Agency, as evidenced by the return receipts.

C) That if the owner or operator fails to provide alternative financial assurance as specified in this Section and obtain the written approval of such alternative assurance from the Agency within 90 days after receipt by both the owner or operator and the Agency of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternative financial assurance in the name of the owner or operator.

g) Use of multiple financial mechanisms. An owner or operator may satisfy the requirements of this Section by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds guaranteeing payment into a trust fund, letters of credit and insurance. The mechanisms must be as specified in subsections (a), (b), (d), and (e)~~ of this Section~~, respectively, except that it is the combination of mechanisms, rather than the single mechanism, that must provide financial assurance for an amount at least equal to the current post-closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, it may use the trust fund as the standby trust fund for the other mechanisms. A single standby

trust fund may be established for two or more mechanisms. The Agency may use any or all of the mechanisms to provide for post-closure care of the facility.

h) Use of a financial mechanism for multiple facilities. An owner or operator may use a financial assurance mechanism specified in this Section to meet the requirements of this Section for more than one facility. Evidence of financial assurance submitted to the Agency must include a list showing, for each facility, the USEPA identification number, name, address, and the amount of funds for post-closure care assured by the mechanism. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. The amount of funds available to the Agency must be sufficient to close all of the owner or operator's facilities. In directing funds available through the mechanism for post-closure care of any of the facilities covered by the mechanism, the Agency may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

i) Release of the owner or operator from the requirements of this Section. Within 60 days after receiving certifications from the owner or operator and a qualified Professional Engineer that the post-closure care period has been completed for a hazardous waste disposal unit in accordance with the approved plan, the Agency must notify the owner or operator that it is no longer required to maintain financial assurance for post-closure care of that unit, unless the Agency determines that post-closure care has not been in accordance with the approved post-closure plan. The Agency must provide the owner or operator a detailed written statement of any such determination that post-closure care has not been in accordance with the approved post-closure plan.

j) Appeal. The following Agency actions are deemed to be permit modifications or refusals to modify for purposes of appeal to the Board (35 Ill. Adm. Code 702.184(e)(3)):

1) An increase in or a refusal to decrease the amount of a bond, letter of credit, or insurance;

2) Requiring alternative assurance upon a finding that an owner or operator or parent corporation no longer meets a financial test.

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

SUBPART N: LANDFILLS

Section 724.414 Special Requirements for Bulk and Containerized Liquids

a) The placement of bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids (whether or not sorbents have been added) in any landfill is prohibited.

b) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 9095B (Paint Filter Liquids Test), as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods," USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

c) Containers holding free liquids must not be placed in a landfill unless the following is true:

1) All free-standing liquid fulfills one of the following:

A) It has been removed by decanting or other methods;

B) It has been mixed with sorbent or solidified so that free-standing liquid is no longer observed; or

C) It has been otherwise eliminated; or

2) The container is very small, such as an ampule; or

3) The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or

4) The container is a lab pack, as defined in Section 724.416, and is disposed of in accordance with Section 724.416.

d) Sorbents used to treat free liquids to be disposed of in landfills must be nonbiodegradable. Nonbiodegradable sorbents are the following: materials listed or described in subsection (d)(1) ~~of this Section~~; materials that pass one of the tests in subsection (d)(2)~~(e)(2) of this Section~~; or materials that are determined by the Board to be nonbiodegradable through the adjusted standard procedure of 35 Ill. Adm. Code 104.

1) Nonbiodegradable sorbents are the following:

A) Inorganic minerals, other inorganic materials, and elemental carbon (e.g., aluminosilicates (clays, smectites, Fuller's earth,

bentonite, calcium bentonite, montmorillonite, calcined montmorillonite, kaolinite, micas (illite), vermiculites, zeolites, etc.), calcium carbonate (organic free limestone), oxides/hydroxides (alumina, lime, silica (sand), diatomaceous earth, etc.), perlite (volcanic glass), expanded volcanic rock, volcanic ash, cement kiln dust, fly ash, rice hull ash, activated charcoal (activated carbon), etc.); or

B) High molecular weight synthetic polymers (e.g., polyethylene, high density polyethylene (HDPE), polypropylene, polystrene, polyurethane, polyacrylate, polynorborene, polyisobutylene, ground synthetic rubber, cross-linked allylstrene and tertiary butyl copolymers, etc.). This does not include polymers derived from biological material or polymers specifically designed to be degradable; or

C) Mixtures of these nonbiodegradable materials.

2) Tests for nonbiodegradable sorbents are the following:

A) The sorbent material is determined to be nonbiodegradable under ASTM Method G21-70 (1984a) (Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi), incorporated by reference in 35 Ill. Adm. Code 720.111(a);

B) The sorbent material is determined to be nonbiodegradable under ASTM Method G22-76 (1984b) (Standard Practice for Determining Resistance of Plastics to Bacteria), incorporated by reference in 35 Ill. Adm. Code 720.111(a); or

C) The sorbent material is determined to be non-biodegradable under OECD Guideline for Testing of Chemicals, Method 301B (CO_2 Evolution (Modified Sturm Test)), incorporated by reference in 35 Ill. Adm. Code 720.111(a).

e) The placement of any liquid that is not a hazardous waste in a hazardous waste landfill is prohibited (35 Ill. Adm. Code 729.311), unless the Board finds that the owner or operator has demonstrated the following in a petition for an adjusted standard pursuant to Section 28.1 of the Act [415 ILCS 5/28.1] and 35 Ill. Adm. Code 101 and 104:

1) The only reasonably available alternative to the placement in a hazardous waste landfill is placement in a landfill or unlined surface impoundment,

whether or not permitted or operating under interim status, that contains or which may reasonably be anticipated to contain hazardous waste; and

2) Placement in the hazardous waste landfill will not present a risk of contamination of any "underground source of drinking water" (as that term is defined in 35 Ill. Adm. Code 702.110).

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

SUBPART W: DRIP PADS

Section 724.670 Applicability

a) The requirements of this Subpart W apply to owners and operators of facilities that use new or existing drip pads to convey treated wood drippage, precipitation or surface water run-on to an associated collection system.

1) "Existing drip pads" are the following:

A) Those constructed before December 6, 1990; and

B) Those for which the owner or operator had a design and had entered into binding financial or other agreements for construction prior to December 6, 1990.

2) All other drip pads are "new drip pads."

3) The requirements at Section 724.673(b)(3) to install a leak collection system applies only to those drip pads that were constructed after December 24, 1992 except for those constructed after December 24, 1992 for which the owner or operator had a design and has entered into binding financial or other agreements for construction prior to December 24, 1992.

b) The owner or operator of any drip pad that is inside or under a structure that provides protection from precipitation so that neither run-off nor run-on is generated is not subject to regulation under Section 724.673(e)~~724.672(e)~~ or (f).

c) The requirements of this subsection (c) are not applicable to the management of infrequent and incidental drippage in storage yards provided that the owner or operator maintains and complies with a written contingency plan that describes how the owner or operator will respond immediately to the discharge of infrequent and incidental drippage. At a minimum, the contingency plan must describe how the owner or operator will do the following:

1) Clean up the drippage;

2) Document the clean-up of the drippage;

3) Retain documentation regarding the clean-up for three years; and

4) Manage the contaminated media in a manner consistent with State and federal regulations.

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

Section 724.671 Assessment of Existing Drip Pad Integrity

a) For each existing drip pad, the owner or operator must evaluate the drip pad and determine whether it meets all of the requirements of this Subpart W, except the requirements for liners and leak detection systems of Section 724.673(b). No later than June 6, 1991, the owner or operator must obtain and keep on file at the facility a written assessment of the drip pad, reviewed and certified by a qualified Professional Engineer that attests to the results of the evaluation. The assessment must be reviewed, updated, and re-certified annually until all upgrades, repairs or modifications necessary to achieve compliance with all the standards of Section 724.673 are complete. The evaluation must document the extent to which the drip pad meets each of the design and operating standards of Section 724.673, except the standards for liners and leak detection systems, specified in Section 724.673(b).

b) The owner or operator must develop a written plan for upgrading, repairing, and modifying the drip pad to meet the requirements of Section 724.673(b) and submit the plan to the Agency no later than two years before the date that all repairs, upgrades and modifications will be complete. This written plan must describe all changes to be made to the drip pad in sufficient detail to document compliance with all the requirements of Section 724.673. The plan must be reviewed and certified by a qualified Professional Engineer.

c) Upon completion of all upgrades, repairs, and modifications, the owner or operator must submit to the Agency, the as-built drawings for the drip pad, together with a certification by a qualified Professional Engineer attesting that the drip pad conforms to the drawings.

d) If the drip pad is found to be leaking or unfit for use, the owner or operator must comply with the provisions of Section 724.673(m)~~724.672(m)~~ or close the drip pad in accordance with Section 724.675.

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

SUBPART AA: AIR EMISSION STANDARDS FOR PROCESS VENTS

Section 724.933 Standards: Closed-Vent Systems and Control Devices

a) Compliance Required.

1) Owners or operators of closed-vent systems and control devices used to comply with provisions of this Part must comply with the provisions of this Section.

2) Implementation Schedule.

A) The owner or operator of an existing facility that cannot install a closed-vent system and control device to comply with the provisions of this Subpart AA on the effective date that the facility becomes subject to the provisions of this Subpart AA must prepare an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The controls must be installed as soon as possible, but the implementation schedule may allow up to 30 months after the effective date that the facility becomes subject to this Subpart AA for installation and startup.

B) Any unit that began operation after December 21, 1990 and which was subject to the provisions of this Subpart AA when operation began must comply with the rules immediately (i.e., must have control devices installed and operating on startup of the affected unit); the 30-month implementation schedule does not apply.

C) The owner or operator of any facility in existence on the effective date of a statutory or regulatory amendment that renders the facility subject to this Subpart AA must comply with all requirements of this Subpart AA as soon as practicable, but no later than 30 months after the effective date of the amendment. When control equipment required by this Subpart AA cannot be installed and begin operation by the effective date of the amendment, the facility owner or operator must prepare an implementation schedule that includes the following information: specific calendar dates for award of contracts or issuance of purchase orders for the control equipment, initiation of on-site

installation of the control equipment, completion of the control equipment installation, and performance of any testing to demonstrate that the installed equipment meets the applicable standards of this Subpart AA. The owner or operator must enter the implementation schedule in the operating record or in a permanent, readily available file located at the facility.

D) An owner or operator of a facility or unit that becomes newly subject to the requirements of this Subpart AA after December 8, 1997, due to an action other than those described in subsection (a)(2)(C) of this Section, must comply with all applicable requirements immediately (i.e., the facility or unit must have control devices installed and operating on the date the facility or unit becomes subject to this Subpart AA; the 30-month implementation schedule does not apply).

b) A control device involving vapor recovery (e.g., a condenser or adsorber) must be designed and operated to recover the organic vapors vented to it with an efficiency of 95 weight percent or greater unless the total organic emission limits of Section 724.932(a)(1) for all affected process vents is attained at an efficiency less than 95 weight percent.

c) An enclosed combustion device (e.g., a vapor incinerator, boiler, or process heater) must be designed and operated to reduce the organic emissions vented to it by 95 weight percent or greater; to achieve a total organic compound concentration of 20 ppmv, expressed as the sum of the actual compounds and not in carbon equivalents, on a dry basis, corrected to three percent oxygen; or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 °C. If a boiler or process heater is used as the control device, then the vent stream must be introduced into the flame zone of the boiler or process heater.

d) Flares.

1) A flare must be designed for and operated with no visible emissions, as determined by the methods specified in subsection (e)(1) ~~of this Section~~, except for periods not to exceed a total of five minutes during any two consecutive hours.

2) A flare must be operated with a flame present at all times, as determined by the methods specified in subsection (f)(2)(C) ~~of this Section~~.

3) A flare must be used only if the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater and the flare is steam-

assisted or air-assisted or if the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater and the flare is nonassisted. The net heating value of the gas being combusted must be determined by the methods specified in subsection (e)(2)~~ of this Section~~.

4) Exit Velocity.

A) A steam-assisted or nonassisted flare must be designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3)~~ of this Section~~, less than 18.3 m/s (60 ft/s), except as provided in subsections (d)(4)(B) and (d)(4)(C)~~ of this Section~~.

B) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3)~~ of this Section~~, equal to or greater than 18.3 m/s (60 ft/s) but less than 122 m/s (400 ft/s) is allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

C) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3)~~ of this Section~~, less than the velocity, V, as determined by the method specified in subsection (e)(4)~~ of this Section~~, and less than 122 m/s (400 ft/s) is allowed.

5) An air-assisted flare must be designed and operated with an exit velocity less than the velocity, V, as determined by the method specified in subsection (e)(5)~~ of this Section~~.

6) A flare used to comply with this Section must be steam-assisted, air-assisted, or nonassisted.

e) Compliance determination and equations.

1) Reference Method 22 (Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), must be used to determine the compliance of a flare with the visible emission provisions of this Subpart AA. The observation period is two hours and must be used according to Reference Method 22.

2) The net heating value of the gas being combusted in a flare must be

calculated using the following equation:

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

Where:

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

K = 1.74×-10^{-7} (1/ppm)(g mol/scm)(MJ/kcal) where the standard temperature for (g mol/scm) is 20°C

~~ΣX_i = the sum of the values of X for each component i, from i=1 to n~~

C_i = the concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 (Measurement of Gaseous Organic Compound Emissions by Gas Chromatography) in appendix A to 40 CFR 60 (Test Methods), and for carbon monoxide, by ASTM D 1946-90 (Standard Practice for Analysis of Reformed Gas by Gas Chromatography), each incorporated by reference in 35 Ill. Adm. Code 720.111(a)

H_i = the net heat of combustion of sample component i, kcal/gmol at 25° C and 760 mm Hg. The heats of combustion must be determined using ASTM D 2382-88 (Standard Test Method for Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High Precision Method)), incorporated by reference in 35 Ill. Adm. Code 720.111(a), if published values are not available or cannot be calculated.

3) The actual exit velocity of a flare must be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by Reference Methods 2 (Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)), 2A (Direct Measurement of Gas Volume through Pipes and Small Ducts), 2C (Determination of Gas Velocity and Volumetric Flow Rate in Small Stacks or Ducts (Standard Pitot Tube)), or 2D (Measurement of Gas Volume Flow Rates in Small Pipes and Ducts) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

4) The maximum allowed velocity in m/s, V_{max}, for a flare complying with subsection (d)(4)(C) ~~of this Section~~ must be determined by the following equation:

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

Where:

~~$\log_{10}$ = logarithm to the base 10~~
H_T = the net heating value as determined in subsection (e)(2) ~~of this Section~~.

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

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

Where:

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

f) The owner or operator must monitor and inspect each control device required to comply with this Section to ensure proper operation and maintenance of the control device by implementing the following requirements:

1) Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow indicator that provides a record of stream flow from each affected process vent to the control device at least once every hour. The flow indicator sensor must be installed in the vent stream at the nearest feasible point to the control device inlet but before the point at which the vent streams are combined.

2) Install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor control device operation, as follows:

A) For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device must have accuracy of ±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 of the following:

i) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the condenser; or

ii) A temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature with an accuracy of ±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 exhaust vent stream from the condenser exit (i.e., product side).

G) For a carbon adsorption system that regenerates the carbon bed

directly in the control device such as a fixed-bed carbon adsorber, either of the following:

i) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the carbon bed, or

ii) A monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle.

3) Inspect the readings from each monitoring device required by subsections (f)(1) and (f)(2) ~~of this Section~~ at least once each operating day to check control device operation and, if necessary, immediately implement the corrective measures necessary to ensure the control device operates in compliance with the requirements of this Section.

g) An owner or operator using a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device must replace the existing carbon in the control device with fresh carbon at a regular, predetermined time interval that is no longer than the carbon service life established as a requirement of Section 724.935(b)(4)(C)(vi).

h) An owner or operator using a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device must replace the existing carbon in the control device with fresh carbon on a regular basis by using one of the following procedures:

1) Monitor the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system on a regular schedule, and replace the existing carbon with fresh carbon immediately when carbon breakthrough is indicated. The monitoring frequency must be daily or at an interval no greater than 20 percent of the time required to consume the total carbon working capacity established as a requirement of Section 724.935(b)(4)(C)(vii), whichever is longer.

2) Replace the existing carbon with fresh carbon at a regular, predetermined time interval that is less than the design carbon replacement interval established as a requirement of Section 724.935(b)(4)(C)(vii).

i) An alternative operational or process parameter may be monitored if the operator demonstrates that the parameter will ensure that the control device is operated in

conformance with these standards and the control device's design specifications.

j) An owner or operator of an affected facility seeking to comply with the provisions of this Part by using a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system is required to develop documentation including sufficient information to describe the control device operation and identify the process parameter or parameters that indicate proper operation and maintenance of the control device.

k) A closed-vent system must meet either of the following design requirements:

1) A closed-vent system must be designed to operate with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, as determined by the methods specified at Section 724.934(b), and by visual inspections; or

2) A closed-vent system must be designed to operate at a pressure below atmospheric pressure. The system must be equipped with at least one pressure gauge or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system when the control device is operating.

l) The owner or operator must monitor and inspect each closed-vent system required to comply with this Section to ensure proper operation and maintenance of the closed-vent system by implementing the following requirements:

1) Each closed-vent system that is used to comply with subsection (k)(1) ~~of this Section~~ must be inspected and monitored in accordance with the following requirements:

A) An initial leak detection monitoring of the closed-vent system must be conducted by the owner or operator on or before the date that the system becomes subject to this Section. The owner or operator must monitor the closed-vent system components and connections using the procedures specified in Section 724.934(b) to demonstrate that the closed-vent system operates with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background.

B) After initial leak detection monitoring required in subsection (l)(1)(A) ~~of this Section~~, the owner or operator must inspect and monitor the closed-vent system as follows:

i) Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) must be visually inspected at least once per year to check for defects that could result in air pollutant emissions. The owner or operator must monitor a component or connection using the procedures specified in Section 724.934(b) to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted).

ii) Closed-vent system components or connections other than those specified in subsection (l)(1)(B)(i) ~~of this Section~~ must be monitored annually and at other times as requested by the Regional Administrator, except as provided for in subsection (o) ~~of this Section~~, using the procedures specified in Section 724.934(b) to demonstrate that the components or connections operate with no detectable emissions.

C) In the event that a defect or leak is detected, the owner or operator must repair the defect or leak in accordance with the requirements of subsection (l)(3) ~~of this Section~~.

D) The owner or operator must maintain a record of the inspection and monitoring in accordance with the requirements specified in Section 724.935.

2) Each closed-vent system that is used to comply with subsection (k)(2) ~~of this Section~~ must be inspected and monitored in accordance with the following requirements:

A) The closed-vent system must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork or piping or loose connections.

B) The owner or operator must perform an initial inspection of the closed-vent system on or before the date that the system becomes subject to this Section. Thereafter, the owner or operator must

perform the inspections at least once every year.

C) In the event that a defect or leak is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (l)(3) ~~of this Section~~.

D) The owner or operator must maintain a record of the inspection and monitoring in accordance with the requirements specified in Section 724.935.

3) The owner or operator must repair all detected defects as follows:

A) Detectable emissions, as indicated by visual inspection or by an instrument reading greater than 500 ppmv above background, must be controlled as soon as practicable, but not later than 15 calendar days after the emission is detected, except as provided for in subsection (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 must maintain a record of the defect repair in accordance with the requirements specified in Section 724.935.

m) A closed-vent system or control device used to comply with provisions of this Subpart AA must be operated at all times when emissions may be vented to it.

n) The owner or operator using a carbon adsorption system to control air pollutant emissions must document that all carbon removed that is a hazardous waste and that is removed from the control device is managed in one of the following manners, regardless of the volatile organic concentration of the carbon:

1) It is regenerated or reactivated in a thermal treatment unit that meets one of the following:

A) The owner or operator of the unit has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart X of this Part; or

B) The unit is equipped with and operating air emission controls in accordance with the applicable requirements of Subparts AA and CC of this Part or Subparts AA and CC of 35 Ill. Adm. Code 725; or

C) The unit is equipped with and operating air emission controls in accordance with a national emission standard for hazardous air pollutants under 40 CFR 61 (National Emission Standards for Hazardous Air Pollutants) or 63 (National Emission Standards for Hazardous Air Pollutants for Source Categories), each incorporated by reference in 35 Ill. Adm. Code 720.111(b).

2) It is incinerated in a hazardous waste incinerator for which the owner or operator has done either of the following:

A) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart O of this Part; or

B) The owner or operator has certified compliance in accordance with interim status requirements of Subpart O of 35 Ill. Adm. Code 725.

3) It is burned in a boiler or industrial furnace for which the owner or operator has done either of the following:

A) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart H of 35 Ill. Adm. Code 726; or

B) The owner or operator has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of Subpart H of 35 Ill. Adm. Code 726.

o) Any components of a closed-vent system that are designated, as described in Section 724.935(c)(9), as unsafe to monitor are exempt from the requirements of subsection (l)(1)(B)(ii) ~~of this Section~~ if both of the following conditions are fulfilled:

1) The owner or operator of the closed-vent system has determined that the

components of the closed-vent system are unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with subsection (l)(1)(B)(ii) ~~of this Section~~; and

2) The owner or operator of the closed-vent system adheres to a written plan that requires monitoring the closed-vent system components using the procedure specified in subsection (l)(1)(B)(ii) ~~of this Section~~ as frequently as practicable during safe-to-monitor times.

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

Section 724.934 Test Methods and Procedures

a) Each owner or operator subject to the provisions of this Subpart AA must comply with the test methods and procedures requirements provided in this Section

b) When a closed-vent system is tested for compliance with no detectable emissions, as required in Section 724.933(l), the test must comply with the following requirements:

1) Monitoring must comply with Reference Method 21 (Determination of Volatile Organic Compound Leaks) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b).

2) The detection instrument must meet the performance criteria of Reference Method 21.

3) The instrument must be calibrated before use on each day of its use by the procedures specified in Reference Method 21.

4) Calibration gases must be as follows:

A) Zero air (less than 10 ppm of hydrocarbon in air); and

B) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.

5) The background level must be determined as set forth in Reference Method 21.

6) The instrument probe must be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

7) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

c) Performance tests to determine compliance with Section 724.932(a) and with the total organic compound concentration limit of Section 724.933(c) must comply with the following:

1) Performance tests to determine total organic compound concentrations and mass flow rates entering and exiting control devices must be conducted and data reduced in accordance with the following reference methods and calculation procedures:

A) Reference Method 2 (Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), for velocity and volumetric flow rate.

B) Reference Method 18 (Measurement of Gaseous Organic Compound Emissions by Gas Chromatography) or Reference Method 25A (Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), for organic content. If Reference Method 25A is used, the organic HAP used as the calibration gas must be the single organic HAP representing the largest percent by volume of the emissions. The use of Reference Method 25A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

C) Each performance test must consist of three separate runs, each run conducted for at least one hour under the conditions that exist when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. For the purpose of determining total organic compound concentrations and mass flow rates, the average of results of all runs applies. The average must be computed on a time-weighed basis.

D) Total organic mass flow rates must be determined by the following equation:

i) For a source using Reference Method 18:

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

Where:

E_h = The total organic mass flow rate, kg/h
Q_{2sd} = The volumetric flow rate of gases entering or exiting control device, dscm/h, as determined by Reference Method 2
N = The number of organic compounds in the vent gas
C_i = The organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Reference Method 18
MW_i = The molecular weight of organic compound I in the vent gas, kg/kg-mol
0.0416 = The conversion factor for molar volume, kg-mol/m^3, at 293 K and 760 mmHg
10^{-6} = The conversion factor from ppm.

ii) For a source using Reference Method 25A:

$$E_h = Q \times C \times MW \times 01.0416 \times 10^{-6}$$

Where:

E_h = The total organic mass flow rate, kg/h
Q = The volumetric flow rate of gases entering or exiting control device, dscm/h, as determined by Reference Method 2
C = The organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Reference Method 25A
MW = The molecular weight of propane, 44 kg/kg-mol
0.0416 = The conversion factor for molar volume, kg-mol/m^3, at 293 K and 760 mmHg
10^{-6} = The conversion factor from ppm.

E) The annual total organic emission rate must be determined by the

following equation:

$$A = F \times H$$

Where:

A = total organic emission rate, kg/y
F = the total organic mass flow rate, kg/h, as calculated in subsection (c)(1)(D) ~~of this Section~~
H = the total annual hours of operation for the affected unit.

F) Total organic emissions from all affected process vents at the facility must be determined by summing the hourly total organic mass emissions rates (F as determined in subsection (c)(1)(D) ~~of this Section~~) and by summing the annual total organic mass emission rates (A as determined in subsection (c)(1)(E) ~~of this Section~~) for all affected process vents at the facility.

2) The owner or operator must record such process information as is necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction do not constitute representative conditions for the purpose of a performance test.

3) The owner or operator of an affected facility must provide, or cause to be provided, performance testing facilities as follows:

A) Sampling ports adequate for the test methods specified in subsection (c)(1) ~~of this Section~~.

B) Safe sampling platforms.

C) Safe access to sampling platforms.

D) Utilities for sampling and testing equipment.

4) For the purpose of making compliance determinations, the time-weighted average of the results of the three runs must apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the owner or operator's control, compliance may, upon the Agency's approval, be determined using the

average of the results of the two other runs.

d) To show that a process vent associated with a hazardous waste distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation is not subject to the requirements of this Subpart AA, the owner or operator must make an initial determination that the time-weighted, annual average total organic concentration of the waste managed by the waste management unit is less than 10 ppmw using one of the following two methods:

1) Direct measurement of the organic concentration of the waste using the following procedures:

A) The owner or operator must take a minimum of four grab samples of waste for each wastestream managed in the affected unit under process conditions expected to cause the maximum waste organic concentration.

B) For waste generated onsite, the grab samples must be collected at a point before the waste is exposed to the atmosphere, such as in an enclosed pipe or other closed system that is used to transfer the waste after generation to the first affected distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation. For waste generated offsite, the grab samples must be collected at the inlet to the first waste management unit that receives the waste provided the waste has been transferred to the facility in a closed system such as a tank truck and the waste is not diluted or mixed with other waste.

C) Each sample must be analyzed and the total organic concentration of the sample must be computed using Method 9060A (Total Organic Carbon) of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," USEPA publication number EPA 530/SW-846, incorporated by reference under 35 Ill. Adm. Code 720.111(a), or analyzed for its individual constituents.

D) The arithmetic mean of the results of the analyses of the four samples apply for each wastestream managed in the unit in determining the time-weighted, annual average total organic concentration of the waste. The time-weighted average is to be calculated using the annual quantity of each waste stream processed and the mean organic concentration of each wastestream managed in the unit.

2) Using knowledge of the waste to determine that its total organic concentration is less than 10 ppmw. Documentation of the waste determination is required. Examples of documentation that must be used to support a determination under this subsection (d)(2) include the following:

A) Production process information documenting that no organic compounds are used;

B) Information that the waste is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to generate a wastestream having a total organic content less than 10 ppmw; or

C) Prior speciation analysis results on the same wastestream where it is also documented that no process changes have occurred since that analysis that could affect the waste total organic concentration.

e) The determination that a distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation that manages hazardous wastes that have time-weighted, annual average total organic concentrations less than 10 ppmw must be made as follows:

1) By the effective date that the facility becomes subject to the provisions of this Subpart AA or by the date when the waste is first managed in a waste management unit, whichever is later; and either of the following:

2) For continuously generated waste, annually; or

3) Whenever there is a change in the waste being managed or a change in the process that generates or treats the waste.

f) When an owner or operator and the Agency do not agree on whether a distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation manages a hazardous waste with organic concentrations of at least 10 ppmw based on knowledge of the waste, direct measurement may be used to resolve the dispute, as specified in subsection (d)(1) ~~of this Section~~.

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

Section 724.935 Recordkeeping Requirements

a) Compliance Required.

1) Each owner or operator subject to the provisions of this Subpart AA must comply with the recordkeeping requirements of this Section.

2) An owner or operator of more than one hazardous waste management unit subject to the provisions of this Subpart AA may comply with the recordkeeping requirements for these hazardous waste management units in one recordkeeping system if the system identifies each record by each hazardous waste management unit.

b) Owners and operators must record the following information in the facility operating record:

1) For facilities that comply with the provisions of Section 724.933(a)(2), an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The schedule must also include a rationale of why the installation cannot be completed at an earlier date. The implementation schedule must be in the facility operating record by the effective date that the facility becomes subject to the provisions of this Subpart AA.

2) Up-to-date documentation of compliance with the process vent standards in Section 724.932, including the following:

A) Information and data identifying all affected process vents, annual throughput, and operating hours of each affected unit, estimated emission rates for each affected vent and for the overall facility (i.e., the total emissions for all affected vents at the facility), and the approximate location within the facility of each affected unit (e.g., identify the hazardous waste management units on a facility plot plan).

B) Information and data supporting determination of vent emissions and emission reductions achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, determinations of vent emissions and emission reductions must be made using operating parameter values (e.g., temperatures, flow rates, or vent stream organic compounds and concentrations) that represent the conditions that result in maximum organic emissions, such as when the waste management unit is operating at the highest load or capacity level reasonably expected to occur. If the owner or operator takes any action (e.g., managing a waste of different composition or

increasing operating hours of affected waste management units) that would result in an increase in total organic emissions from affected process vents at the facility, then a new determination is required.

3) Where an owner or operator chooses to use test data to determine the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan. The test plan must include the following:

A) A description of how it is determined that the planned test is going to be conducted when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. This must include the estimated or design flow rate and organic content of each vent stream and define the acceptable operating ranges of key process and control device parameters during the test program.

B) A detailed engineering description of the closed-vent system and control device including the following:

i) Manufacturer's name and model number of control device;

ii) Type of control device;

iii) Dimensions of the control device;

iv) Capacity;and

v) Construction materials.

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

4) Documentation of compliance with Section 724.933 must include the following information:

A) A list of all information references and sources used in preparing the documentation.

B) Records, including the dates of each compliance test required by

Section 724.933(k).

C) If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions," USEPA publication number EPA 450/2-81-005, incorporated by reference in 35 Ill. Adm. Code 720.111(a) or other engineering texts, approved by the Agency, that present basic control device design information. Documentation provided by the control device manufacturer or vendor that describes the control device design in accordance with subsections (b)(4)(C)(i) through (b)(4)(C)(vii) ~~of this Section~~ may be used to comply with this requirement. The design analysis must address the vent stream characteristics and control device operation parameters as specified below.

i) For a thermal vapor incinerator, the design analysis must consider the vent stream composition, constituent concentrations,and flow rate. The design analysis must also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.

ii) For a catalytic vapor incinerator, the design analysis must consider the vent stream composition, constituent concentrations,, and flow rate. The design analysis must also establish the design minimum and average temperatures across the catalyst bed inlet and outlet.

iii) For a boiler or process heater, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also establish the design minimum and average flame zone temperatures, combustion zone residence time and description of method and location where the vent stream is introduced into the combustion zone.

iv) For a flare, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also consider the requirements specified in Section 724.933(d).

v) For a condenser, the design analysis must consider the vent

stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis must also establish the design outlet organic compound concentration level, design average temperature of the condenser exhaust vent stream and design average temperatures of the coolant fluid at the condenser inlet and outlet.

vi) For a carbon adsorption system, such as a fixed-bed adsorber that regenerates the carbon bed directly onsite in the control device, the design analysis must consider the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis must also establish the design exhaust vent stream organic compound concentration level, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total steam flow over the period of each complete carbon bed regeneration cycle, duration of the carbon bed steaming and cooling/drying cycles, design carbon bed temperature after regeneration, design carbon bed regeneration time and design service life of carbon.

vii) For a carbon adsorption system, such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device, the design analysis must consider the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis must also establish the design outlet organic concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.

D) A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is or would be operating at the highest load or capacity level reasonably expected to occur.

E) A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95

percent or greater unless the total organic concentration limit of Section 724.932(a) is achieved at an efficiency less than 95 weight percent or the total organic emission limits of Section 724.932(a) for affected process vents at the facility are attained by a control device involving vapor recovery at an efficiency less than 95 weight percent. A statement provided by the control device manufacturer or vendor certifying that the control equipment meets the design specifications may be used to comply with this requirement.

F) If performance tests are used to demonstrate compliance, all test results.

c) Design documentation and monitoring operating and inspection information for each closed-vent system and control device required to comply with the provisions of this Part must be recorded and kept up-to-date in the facility operating record. The information must include the following:

1) Description and date of each modification that is made to the closed-vent system or control device design.

2) Identification of operating parameter, description of monitoring device, and diagram of monitoring sensor location or locations used to comply with Section 724.933(f)(1) and (f)(2).

3) Monitoring, operating and inspection information required by Section 724.933(f) through (k).

4) Date, time, and duration of each period that occurs while the control device is operating when any monitored parameter exceeds the value established in the control device design analysis as specified below:

A) For a thermal vapor incinerator designed to operate with a minimum residence time of 0.50 second at a minimum temperature of 760°C, any period when the combustion temperature is below 760°C.

B) For a thermal vapor incinerator designed to operate with an organic emission reduction efficiency of 95 weight percent or greater, any period when the combustion zone temperature is more than 28°C below the design average combustion zone temperature established as a requirement of subsection (b)(4)(C)(i) ~~of this Section~~.

C) For a catalytic vapor incinerator, any period when:

i) Temperature of the vent stream at the catalyst bed inlet is more than 28°C below the average temperature of the inlet vent stream established as a requirement of subsection (b)(4)(C)(ii) ~~of this Section~~; or

ii) Temperature difference across the catalyst bed is less than 80% of the design average temperature difference established as a requirement of subsection (b)(4)(C)(ii) ~~of this Section~~.

D) For a boiler or process heater, any period when either of the following occurs:

i) Flame zone temperature is more than 28°C below the design average flame zone temperature established as a requirement of subsection (b)(4)(C)(iii) ~~of this Section~~; or

ii) Position changes where the vent stream is introduced to the combustion zone from the location established as a requirement of subsection (b)(4)(C)(iii) ~~of this Section~~.

E) For a flare, period when the pilot flame is not ignited.

F) For a condenser that complies with Section 724.933(f)(2)(F)(i), any period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the condenser are more than 20 percent greater than the design outlet organic compound concentration level established as a requirement of subsection (b)(4)(C)(v) ~~of this Section~~.

G) For a condenser that complies with Section 724.933(f)(2)(F)(ii), any period when the following occurs:

i) Temperature of the exhaust vent stream from the condenser is more than 6°C above the design average exhaust vent stream temperature established as a requirement of subsection (b)(4)(C)(v) ~~of this Section~~.

ii) Temperature of the coolant fluid exiting the condenser is more than 6°C above the design average coolant fluid temperature at the condenser outlet established as a

requirement of subsection (b)(4)(C)(v) ~~of this Section~~.

H) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device and complies with Section 724.933(f)(2)(G)(i), any period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the carbon bed are more than 20 percent greater than the design exhaust vent stream organic compound concentration level established as a requirement of subsection (b)(4)(C)(vi) ~~of this Section~~.

I) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device and complies with Section 724.933(f)(2)(G)(ii), any period when the vent stream continues to flow through the control device beyond the predetermined carbon bed regeneration time established as a requirement of subsection (b)(4)(C)(vi) ~~of this Section~~.

5) Explanation for each period recorded under subsection (c)(4) ~~of this Section~~ of the cause for control device operating parameter exceeding the design value and the measures implemented to correct the control device operation.

6) For a carbon adsorption system operated subject to requirements specified in Section 724.933(g) or (h)(2), any date when existing carbon in the control device is replaced with fresh carbon.

7) For a carbon adsorption system operated subject to requirements specified in Section 724.933(h)(1), a log that records the following:

A) Date and time when control device is monitored for carbon breakthrough and the monitoring device reading; and

B) Date when existing carbon in the control device is replaced with fresh carbon.

8) Date of each control device startup and shutdown.

9) An owner or operator designating any components of a closed-vent system as unsafe to monitor pursuant to Section 724.933(o) must record in a log that is kept in the facility operating record the identification of closed-vent system components that are designated as unsafe to monitor in accordance

with the requirements of Section 724.933(o), an explanation for each closed-vent system component stating why the closed-vent system component is unsafe to monitor, and the plan for monitoring each closed-vent system component.

10) When each leak is detected, as specified in Section 724.933(l), the following information must be recorded:

A) The instrument identification number; the closed-vent system component identification number; and the operator name, initials, or identification number.

B) The date the leak was detected and the date of first attempt to repair the leak.

C) The date of successful repair of the leak.

D) Maximum instrument reading measured by Reference Method 21 (Determination of Volatile Organic Compound Leaks) of appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), after it is successfully repaired or determined to be nonrepairable.

E) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

i) The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.

ii) If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion.

d) Records of the monitoring, operating, and inspection information required by subsections (c)(3) through (c)(10) ~~of this Section~~ must be kept at least three years following the date of each occurrence, measurement, corrective action, or record.

e) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system,

the Agency must specify the appropriate recordkeeping requirements.

f) Up-to-date information and data used to determine whether or not a process vent is subject to the requirements in Section 724.932, including supporting documentation as required by Section 724.934(d)(2), when application of the knowledge of the nature of the hazardous wastestream or the process by which it was produced is used, must be recorded in a log that is kept in the facility operating record.

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

Section 724.936 Reporting Requirements

a) A semiannual report must be submitted by owners and operators subject to the requirements of this Subpart AA to the Agency by dates specified in the RCRA permit. The report must include the following information:

1) The USEPA identification number (35 Ill. Adm. Code 722.112), name, and address of the facility.

2) For each month during the semiannual reporting period the following:

A) Dates when the control device did the following:

i) Exceeded or operated outside of the design specifications, as defined in Section 724.935(c)(4); and

ii) Such exceedances were not corrected within 24 hours, or that a flare operated with visible emissions, as defined by Reference Method 22 monitoring;

B) The duration and cause of each exceedance or visible emissions; and

C) Any corrective measures taken.

b) If during the semiannual reporting period, the control device does not exceed or operate outside of the design specifications, as defined in Section 724.935(c)(4), for more than 24 hours or a flare does not operate with visible emissions, as defined in Section 724.933(d), a report to the Agency is not required.

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

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

Section 724.981 Definitions

As used in this Subpart CC, all terms will have the meaning given to them in 35 Ill. Adm. Code 725.981; section 1004 of the federal Resource Conservation and Recovery Act (42 USC 6903), incorporated by reference in 35 Ill. Adm. Code 720.111; and 35 Ill. Adm. Code 720 through 726~~728~~.

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

Section 724.982 Standards: General

a) This Section applies to the management of hazardous waste in tanks, surface impoundments, and containers subject to this Subpart CC.

b) The owner or operator must control air pollutant emissions from each waste management unit in accordance with the standards specified in Sections 724.984 through 724.987, as applicable to the waste management unit, except as provided for in subsection (c) ~~of this Section~~.

c) A tank, surface impoundment, or container is exempt from standards specified in Sections 724.984 through 724.987, as applicable, provided that all hazardous waste placed in the waste management unit is one of the following:

1) A tank, surface impoundment, or container for which all hazardous waste entering the unit has an average VO concentration at the point of waste origination of less than 500 parts per million by weight (ppmw). The average VO concentration must be determined by the procedures specified in Section 724.983(a). The owner or operator must review and update, as necessary, this determination at least once every 12 months following the date of the initial determination for the hazardous waste streams entering the unit.

2) A tank, surface impoundment, or container for which the organic content of all the hazardous waste entering the waste management unit has been reduced by an organic destruction or removal process that achieves any one of the following conditions:

A) The process removes or destroys the organics contained in the hazardous waste to a level such that the average VO concentration of the hazardous waste at the point of waste treatment is less than

the exit concentration limit (C_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 724.983(b).

B) The process removes or destroys the organics contained in the hazardous waste to a level such that the organic reduction efficiency (R) for the process is equal to or greater than 95 percent, and the average VO concentration of the hazardous waste at the point of waste treatment is less than 100 ppmw. The organic reduction efficiency for the process and the average VO concentration of the hazardous waste at the point of waste treatment must be determined using the procedures specified in Section 724.983(b).

C) The process removes or destroys the organics contained in the hazardous waste to such a level that the actual organic mass removal rate (MR) for the process is equal to or greater than the required organic mass removal rate (RMR) established for the process. The required organic mass removal rate and the actual organic mass removal rate for the process must be determined using the procedures specified in Section 724.983(b).

D) The process is a biological process that destroys or degrades the organics contained in the hazardous waste so that either of the following conditions are met:

i) The organic reduction efficiency (R) for the process is equal to or greater than 95 percent, and the organic biodegradation efficiency (R_{bio}) for the process is equal to or greater than 95 percent. The organic reduction efficiency and the organic biodegradation efficiency for the process must be determined using the procedures specified in Section 724.983(b).

ii) The total actual organic mass biodegradation rate (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 724.983(b).

E) The process removes or destroys the organics contained in the hazardous waste and meets all of the following conditions:

i) From the point of waste origination through the point where the hazardous waste enters the treatment process, the hazardous waste is continuously managed in waste management units that use air emission controls in accordance with the standards specified in Sections 724.984 through 724.987, as applicable to the waste management unit.

ii) From the point of waste origination through the point where the hazardous waste enters the treatment process, any transfer of the hazardous waste is accomplished through continuous hard-piping or other closed system transfer that does not allow exposure of the waste to the atmosphere.

BOARD NOTE: The USEPA considers a drain system that meets the requirements of federal subpart RR of 40 CFR 63 (National Emission Standards for Individual Drain Systems) to be a closed system.

iii) The average VO concentration of the hazardous waste at the point of waste treatment is less than the lowest average VO concentration at the point of waste origination, determined for each of the individual hazardous waste streams entering the process or 500 ppmw, whichever value is lower. The average VO concentration of each individual hazardous waste stream at the point of waste origination must be determined using the procedures specified in Section 724.983(a). The average VO concentration of the hazardous waste at the point of waste treatment must be determined using the procedures specified in Section 724.983(b).

F) A process that removes or destroys the organics contained in the hazardous waste to a level such that the organic reduction efficiency (R) for the process is equal to or greater than 95 percent and the owner or operator certifies that the average VO concentration at the point of waste origination for each of the individual waste streams entering the process is less than 10,000

ppmw. The organic reduction efficiency for the process and the average VO concentration of the hazardous waste at the point of waste origination must be determined using the procedures specified in Section 724.983(b) and Section 724.983(a), respectively.

G) A hazardous waste incinerator for which either of the following conditions is true:

i) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart H of 35 Ill. Adm. Code 726; or

ii) The owner or operator has designed and operates the incinerator in accordance with the interim status requirements of Subpart O of 35 Ill. Adm. Code 725.

H) A boiler or industrial furnace for which either of the following conditions is true:

i) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart H of 35 Ill. Adm. Code 726; or

ii) The owner or operator has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of Subpart O of 35 Ill. Adm. Code 725.

I) For the purpose of determining the performance of an organic destruction or removal process in accordance with the conditions in each of subsections (c)(2)(A) through (c)(2)(F) ~~of this Section~~, the owner or operator must account for VO concentrations determined to be below the limit of detection of the analytical method by using the following VO concentration:

i) If Reference Method 25D (Determination of the Volatile Organic Concentration of Waste Samples) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), is used for the analysis, one-half the blank value determined in Section 4.4 of the method or a value of 25 ppmw, whichever is less.

ii) If any other analytical method is used, one-half the sum of

the limits of detection established for each organic constituent in the waste that has a Henry's law constant value at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) (which can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/m^3) at 25° C.

3) A tank or surface impoundment used for biological treatment of hazardous waste in accordance with the requirements of subsection (c)(2)(D) ~~of this Section~~.

4) A tank, surface impoundment, or container for which all hazardous waste placed in the unit fulfills either of the following conditions:

A) It meets the numerical concentration limits for organic hazardous constituents, applicable to the hazardous waste, as specified in Table T to 35 Ill. Adm. Code 728; or

B) The organic hazardous constituents in the waste have been treated by the treatment technology established by USEPA for the waste, as set forth in 35 Ill. Adm. Code 728.142(a), or have been removed or destroyed by an equivalent method of treatment approved by the Agency pursuant to 35 Ill. Adm. Code 728.142(b).

5) A tank used for bulk feed of hazardous waste to a waste incinerator and all of the following conditions are met:

A) The tank is located inside an enclosure vented to a control device that is designed and operated in accordance with all applicable requirements specified under federal subpart FF of 40 CFR 61 (National Emission Standard for Benzene Waste Operations), incorporated by reference in 35 Ill. Adm. Code 720.111(b), for a facility at which the total annual benzene quantity from the facility waste is equal to or greater than 10 megagrams (11 tons) per year;

B) The enclosure and control device serving the tank were installed and began operation prior to November 25, 1996; and

C) The enclosure is designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T – Criteria for and Verification of a Permanent or Temporary Total Enclosure" under appendix B to 40 CFR 52.741 (VOM Measurement Techniques for Capture Efficiency), incorporated by

reference in 35 Ill. Adm. Code 720.111(b). The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical or electrical equipment; or to direct air flow into the enclosure. The owner or operator must perform the verification procedure for the enclosure as specified in Section 5.0 to "Procedure T – Criteria for and Verification of a Permanent or Temporary Total Enclosure" annually.

d) The Agency may at any time perform or request that the owner or operator perform a waste determination for a hazardous waste managed in a tank, surface impoundment, or container that is exempted from using air emission controls under the provisions of this Section, as follows:

1) The waste determination for average VO concentration of a hazardous waste at the point of waste origination must be performed using direct measurement in accordance with the applicable requirements of Section 724.983(a). The waste determination for a hazardous waste at the point of waste treatment must be performed in accordance with the applicable requirements of Section 724.983(b).

2) In performing a waste determination pursuant to subsection (d)(1) ~~of this Section~~, the sample preparation and analysis must be conducted as follows:

A) In accordance with the method used by the owner or operator to perform the waste analysis, except in the case specified in subsection (d)(2)(B) ~~of this Section~~.

B) If the Agency determines that the method used by the owner or operator was not appropriate for the hazardous waste managed in the tank, surface impoundment, or container, then the Agency may choose an appropriate method.

3) Where the owner or operator is requested to perform the waste determination, the Agency may elect to have an authorized representative observe the collection of the hazardous waste samples used for the analysis.

4) Where the results of the waste determination performed or requested by the Agency do not agree with the results of a waste determination performed by the owner or operator using knowledge of the waste, then the results of the waste determination performed in accordance with the

requirements of subsection (d)(1) ~~of this Section~~ must be used to establish compliance with the requirements of this Subpart CC.

5) Where the owner or operator has used an averaging period greater than one hour for determining the average VO concentration of a hazardous waste at the point of waste origination, the Agency may elect to establish compliance with this Subpart CC by performing or requesting that the owner or operator perform a waste determination using direct measurement based on waste samples collected within a one-hour period, as follows:

A) The average VO concentration of the hazardous waste at the point of waste origination must be determined by direct measurement in accordance with the requirements of Section 724.983(a).

B) Results of the waste determination performed or requested by the Agency showing that the average VO concentration of the hazardous waste at the point of waste origination is equal to or greater than 500 ppmw must constitute noncompliance with this Subpart CC, except in a case as provided for in subsection (d)(5)(C) ~~of this Section~~.

C) Where the average VO concentration of the hazardous waste at the point of waste origination previously has been determined by the owner or operator using an averaging period greater than one hour to be less than 500 ppmw but because of normal operating process variations the VO concentration of the hazardous waste determined by direct measurement for any given one-hour period may be equal to or greater than 500 ppmw, information that was used by the owner or operator to determine the average VO concentration of the hazardous waste (e.g., test results, measurements, calculations, and other documentation) and recorded in the facility records in accordance with the requirements of Section 724.983(a) and Section 724.989 must be considered by the Agency together with the results of the waste determination performed or requested by the Agency in establishing compliance with this Subpart CC.

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

Section 724.986 Standards: Containers

a) The provisions of this Section apply to the control of air pollutant emissions from containers for which Section 724.982(b) references the use of this Section for

such air emission control.

b) General requirements.

1) The owner or operator must control air pollutant emissions from each container subject to this Section in accordance with the following requirements, as applicable to the container, except when the special provisions for waste stabilization processes specified in subsection (b)(2) ~~of this Section~~ apply to the container.

A) For a container having a design capacity greater than 0.1 m^3 (26 gal) and less than or equal to 0.46 m^3 (120 gal), the owner or operator must control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c) ~~of this Section~~.

B) For a container having a design capacity greater than 0.46 m^3 (120 gal) that is not in light material service, the owner or operator must control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c) ~~of this Section~~.

C) For a container having a design capacity greater than 0.46 m^3 (120 gal) that is in light material service, the owner or operator must control air pollutant emissions from the container in accordance with the Container Level 2 standards specified in subsection (d) ~~of this Section~~.

2) When a container having a design capacity greater than 0.1 m^3 (26 gal) is used for treatment of a hazardous waste by a waste stabilization process, the owner or operator must control air pollutant emissions from the container in accordance with the Container Level 3 standards specified in subsection (e) of this Section at those times during the waste stabilization process when the hazardous waste in the container is exposed to the atmosphere.

c) Container Level 1 standards.

1) A container using Container Level 1 controls is one of the following:

A) A container that meets the applicable USDOT regulations on packaging hazardous materials for transportation, as specified in subsection (f) ~~of this Section~~.

B) A container equipped with a cover and closure devices that form a continuous barrier over the container openings so that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container (e.g., a lid on a drum or a suitably secured tarp on a roll-off box) or may be an integral part of the container structural design (e.g., a "portable tank" or bulk cargo container equipped with a screw-type cap).

C) An open-top container in which an organic-vapor suppressing barrier is placed on or over the hazardous waste in the container so that no hazardous waste is exposed to the atmosphere. One example of such a barrier is application of a suitable organic-vapor suppressing foam.

2) A container used to meet the requirements of subsection (c)(1)(B) or (c)(1)(C) ~~of this Section~~ must be equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the hazardous waste to the atmosphere and to maintain the equipment integrity for as long as it is in service. Factors to be considered in selecting the materials of construction and designing the cover and closure devices must include the following: the organic vapor permeability; the effects of contact with the hazardous waste or its vapor managed in the container; the effects of outdoor exposure of the closure device or cover material to wind, moisture, and sunlight; and the operating practices for which the container is intended to be used.

3) Whenever a hazardous waste is in a container using Container Level 1 controls, the owner or operator must install all covers and closure devices for the container, as applicable to the container, and secure and maintain each closure device in the closed position, except as follows:

A) Opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container, as follows:

i) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator must promptly secure the closure devices in the closed position and install the covers, as applicable to the

container, upon conclusion of the filling operation.

ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator must promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.

B) Opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container, as follows:

i) For the purpose of meeting the requirements of this Section, an empty container, as defined in 35 Ill. Adm. Code 721.107(b), may be open to the atmosphere at any time (i.e., covers and closure devices are not required to be secured in the closed position on an empty container).

ii) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container, as defined in 35 Ill. Adm. Code 721.107(b), the owner or operator must promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

C) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or

operator must promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.

D) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device that vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device must be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens must be established so that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

E) Opening of a safety device, as defined in 35 Ill. Adm. Code 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.

4) The owner or operator of containers using Container Level 1 controls must inspect the containers and their covers and closure devices, as follows:

A) In the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility (i.e., it does not meet the conditions for an empty container, as specified in 35 Ill. Adm. Code 721.107(b)), the owner or operator must visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection must be conducted on or before the date on which the container is accepted at the facility (i.e., the date when the container becomes subject to

the Subpart CC container standards). For the purposes of this requirement, the date of acceptance is the date of signature that the facility owner or operator enters on Item 20 of the Uniform Hazardous Waste Manifest, as set forth in the appendix to 40 CFR 262 (Uniform Hazardous Waste Manifest and Instructions (EPA Forms 8700-22 and 8700-22A and Their Instructions)), incorporated by reference in 35 Ill. Adm. Code 720.111(b) (USEPA Forms 8700-22 and 8700-22A), as required under Section 724.171. If a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (c)(4)(C) ~~of this Section~~.

B) In the case when a container used for managing hazardous waste remains at the facility for a period of one year or more, the owner or operator must visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (c)(4)(C) ~~of this Section~~.

C) When a defect is detected for the container, cover, or closure devices, the owner or operator must make first efforts at repair of the defect no later than 24 hours after detection and repair must be completed as soon as possible but no later than five calendar days after detection. If repair of a defect cannot be completed within five calendar days, then the hazardous waste must be removed from the container and the container must not be used to manage hazardous waste until the defect is repaired.

5) The owner or operator must maintain at the facility a copy of the procedure used to determine that containers with capacity of 0.46 m^3 (120 gal) or greater that do not meet applicable USDOT regulations, as specified in subsection (f) ~~of this Section~~, are not managing hazardous waste in light material service.

d) Container Level 2 standards.

1) A container using Container Level 2 controls is one of the following:

A) A container that meets the applicable USDOT regulations on packaging hazardous materials for transportation, as specified in

subsection (f) ~~of this Section~~.

B) A container that operates with no detectable organic emissions, as defined in 35 Ill. Adm. Code 725.981, and determined in accordance with the procedure specified in subsection (g) ~~of this Section~~.

C) A container that has been demonstrated within the preceding 12 months to be vapor-tight by using Reference Method 27 (Determination of Vapor Tightness of Gasoline Delivery Tank Using Pressure-Vacuum Test) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), in accordance with the procedure specified in subsection (h) ~~of this Section~~.

2) Transfer of hazardous waste in or out of a container using Container Level 2 controls must be conducted in such a manner as to minimize exposure of the hazardous waste to the atmosphere, to the extent practical, considering the physical properties of the hazardous waste and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that the USEPA considers to meet the requirements of this subsection (d)(2) include using any one of the following: a submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous waste is filled and subsequently purging the transfer line before removing it from the container opening.

3) Whenever a hazardous waste is in a container using Container Level 2 controls, the owner or operator must install all covers and closure devices for the container, and secure and maintain each closure device in the closed position, except as follows:

A) Opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container, as follows:

i) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator must promptly secure the closure devices in the closed position and install the covers, as applicable to the

container, upon conclusion of the filling operation.

ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator must promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon whichever of the following conditions occurs first: the container, being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container.

B) Opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container, as follows:

i) For the purpose of meeting the requirements of this Section, an empty container, as defined in 35 Ill. Adm. Code 721.107(b), may be open to the atmosphere at any time (i.e., covers and closure devices are not required to be secured in the closed position on an empty container).

ii) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container, as defined in 35 Ill. Adm. Code 721.107(b), the owner or operator must promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

C) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or

operator must promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.

D) Opening of a spring-loaded, pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device that vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device must be designed to operate with no detectable organic emission when the device is secured in the closed position. The settings at which the device opens must be established so that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

E) Opening of a safety device, as defined in 35 Ill. Adm. Code 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.

4) The owner or operator of containers using Container Level 2 controls must inspect the containers and their covers and closure devices, as follows:

A) In the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility (i.e., it does not meet the conditions for an empty container as specified in 35 Ill. Adm. Code 721.107(b)), the owner or operator must visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection must be conducted on or before the date on which the container is accepted at the facility (i.e., the date when the container becomes subject to

the Subpart CC container standards). For the purposes of this requirement, the date of acceptance is the date of signature that the facility owner or operator enters on Item 20 of the Uniform Hazardous Waste Manifest, in the appendix to 40 CFR 262 (Uniform Hazardous Waste Manifest and Instructions (USEPA Forms 8700-22 and 8700-22A and Their Instructions)), as required under Section 724.171. If a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (d)(4)(C) ~~of this Section~~.

B) In the case when a container used for managing hazardous waste remains at the facility for a period of one year or more, the owner or operator must visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (d)(4)(C) ~~of this Section~~.

C) When a defect is detected for the container, cover, or closure devices, the owner or operator must make first efforts at repair of the defect no later than 24 hours after detection, and repair must be completed as soon as possible but no later than five calendar days after detection. If repair of a defect cannot be completed within five calendar days, then the hazardous waste must be removed from the container and the container must not be used to manage hazardous waste until the defect is repaired.

e) Container Level 3 standards.

1) A container using Container Level 3 controls is one of the following:

A) A container that is vented directly through a closed-vent system to a control device in accordance with the requirements of subsection (e)(2)(B) ~~of this Section~~.

B) A container that is vented inside an enclosure that is exhausted through a closed-vent system to a control device in accordance with the requirements of subsections (e)(2)(A) and (e)(2)(B) ~~of this Section~~.

2) The owner or operator must meet the following requirements, as

applicable to the type of air emission control equipment selected by the owner or operator:

A) The container enclosure must be designed and operated in accordance with the criteria for a permanent total enclosure, as specified in "Procedure T – Criteria for and Verification of a Permanent or Temporary Total Enclosure" under appendix B to 40 CFR 52.741 (VOM Measurement Techniques for Capture Efficiency), incorporated by reference in 35 Ill. Adm. Code 720.111(b). The enclosure may have permanent or temporary openings to allow worker access; passage of containers through the enclosure by conveyor or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator must perform the verification procedure for the enclosure, as specified in Section 5.0 to "Procedure T – Criteria for and Verification of a Permanent or Temporary Total Enclosure" initially when the enclosure is first installed and, thereafter, annually.

B) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 724.987.

3) Safety devices, as defined in 35 Ill. Adm. Code 725.981, may be installed and operated as necessary on any container, enclosure, closed-vent system, or control device used to comply with the requirements of subsection (e)(1) ~~of this Section~~.

4) Owners and operators using Container Level 3 controls in accordance with the provisions of this Subpart CC must inspect and monitor the closed-vent systems and control devices, as specified in Section 724.987.

5) Owners and operators that use Container Level 3 controls in accordance with the provisions of this Subpart CC must prepare and maintain the records specified in Section 724.989(d).

6) The transfer of hazardous waste into or out of a container using Container Level 3 controls must be conducted in such a manner as to minimize exposure of the hazardous waste to the atmosphere, to the extent practical considering the physical properties of the hazardous waste and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that USEPA considers to meet the requirements of this subsection (e)(6) include using any one of the following: the use of a

submerged-fill pipe or other submerged-fill method to load liquids into the container; the use of a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or the use of a fitted opening in the top of a container through which the hazardous waste is filled and subsequently purging the transfer line before removing it from the container opening.

f) For the purpose of compliance with subsection (c)(1)(A) or (d)(1)(A) ~~of this Section~~, containers must be used that meet the applicable USDOT regulations on packaging hazardous materials for transportation, as follows:

1) The container meets the applicable requirements specified by USDOT in 49 CFR 178 (Specifications for Packaging), or 49 CFR 179 (Specifications for Tank Cars), each incorporated by reference in 35 Ill. Adm. Code 720.111(b).

2) Hazardous waste is managed in the container in accordance with the applicable requirements specified by USDOT in subpart B of 49 CFR 107 (Exemptions), 49 CFR 172 (Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements), 49 CFR 173 (Shippers – General Requirements for Shipments and Packages), and 49 CFR 180 (Continuing Qualification and Maintenance of Packagings), each incorporated by reference in 35 Ill. Adm. Code 720.111(b).

3) For the purpose of complying with this Subpart CC, no exceptions to the 49 CFR 178 or 179 regulations are allowed, except as provided for in subsection (f)(4) ~~of this Section~~.

4) For a lab pack that is managed in accordance with the USDOT requirements of 49 CFR 178 (Specifications for Packagings), for the purpose of complying with this Subpart CC, an owner or operator may comply with the exceptions for combination packagings specified by USDOT in 49 CFR 173.12(b) (Exceptions for Shipments of Waste Materials), incorporated by reference in 35 Ill. Adm. Code 720.111(b).

g) To determine compliance with the no detectable organic emissions requirement of subsection (d)(1)(B) ~~of this Section~~, the procedure specified in Section 724.983(d) must be used.

1) Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the container, its cover, and associated closure devices, as applicable to the container, must be checked. Potential leak interfaces that

are associated with containers include, but are not limited to, the following: the interface of the cover rim and the container wall; the periphery of any opening on the container or container cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

2) The test must be performed when the container is filled with a material having a volatile organic concentration representative of the range of volatile organic concentrations for the hazardous wastes expected to be managed in this type of container. During the test, the container cover and closure devices must be secured in the closed position.

h) Procedure for determining a container to be vapor-tight using Reference Method 27 for the purpose of complying with subsection (d)(1)(C) ~~of this Section~~.

1) The test must be performed in accordance with Reference Method 27.

2) A pressure measurement device must be used that has a precision of ± 2.5 mm (0.098 in) water and that is capable of measuring above the pressure at which the container is to be tested for vapor tightness.

3) If the test results determined by Reference Method 27 indicate that the container sustains a pressure change less than or equal to 750 Pascals (0.11 psig) within five minutes after it is pressurized to a minimum of 4,500 Pascals (0.65 psig), then the container is determined to be vapor-tight.

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

SUBPART DD: CONTAINMENT BUILDINGS

Section 724.1101 Design and Operating Standards

a) All containment buildings must comply with the following design and operating standards:

1) The containment building must be completely enclosed with a floor, walls, and a roof to prevent exposure to the elements (e.g., precipitation, wind, run on) and to assure containment of managed wastes.

2) The floor and containment walls of the unit, including the secondary containment system if required under subsection (b) ~~of this Section~~, must be designed and constructed of materials of sufficient strength and

thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit, and to prevent failure due to pressure gradients, settlement, compression, or uplift, physical contact with the hazardous wastes to which they are exposed; climatic conditions; and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls. The unit must be designed so that it has sufficient structural strength to prevent collapse or other failure. All surfaces to be in contact with hazardous wastes must be chemically compatible with those wastes. The containment building must meet the structural integrity requirements established by professional organizations generally recognized by the industry such as the American Concrete Institute (ACI) and the American Society of Testing Materials (ASTM). If appropriate to the nature of the waste management operation to take place in the unit, an exception to the structural strength requirement may be made for light-weight doors and windows that meet the following criteria:

A) They provide an effective barrier against fugitive dust emissions under subsection (c)(1)(C) ~~of this Section~~; and

B) The unit is designed and operated in a fashion that assures that wastes will not actually come in contact with these openings.

3) Incompatible hazardous wastes or treatment reagents must not be placed in the unit or its secondary containment system if they could cause the unit or secondary containment system to leak, corrode, or otherwise fail.

4) A containment building must have a primary barrier designed to withstand the movement of personnel, waste, and handling equipment in the unit during the operating life of the unit and appropriate for the physical and chemical characteristics of the waste to be managed.

b) For a containment building used to manage hazardous wastes containing free liquids or treated with free liquids (the presence of which is determined by the paint filter test, a visual examination, or other appropriate means), the owner or operator must include the following:

1) A primary barrier designed and constructed of materials to prevent the migration of hazardous constituents into the barrier (e.g., a geomembrane covered by a concrete wear surface).

2) A liquid collection and removal system to minimize the accumulation of liquid on the primary barrier of the containment building, as follows:

A) The primary barrier must be sloped to drain liquids to the associated collection system; and

B) Liquids and waste must be collected and removed to minimize hydraulic head on the containment system at the earliest practicable time.

3) A secondary containment system including a secondary barrier designed and constructed to prevent migration of hazardous constituents into the barrier, and a leak detection system that is capable of detecting failure of the primary barrier and collecting accumulated hazardous wastes and liquids at the earliest practicable time.

A) The requirements of the leak detection component of the secondary containment system are satisfied by installation of a system that is, at a minimum, as follows:

i) It is constructed with a bottom slope of 1 percent or more; and

ii) It is constructed of a granular drainage material with a hydraulic conductivity of 1×10^{-2} cm/sec or more and a thickness of 12 inches (30.5 cm) or more, or constructed of synthetic or geonet drainage materials with a transmissivity of 3×10^{-5} m^2/sec or more.

B) If treatment is to be conducted in the building, an area in which such treatment will be conducted must be designed to prevent the release of liquids, wet materials, or liquid aerosols to other portions of the building.

C) The secondary containment system must be constructed of materials that are chemically resistant to the waste and liquids managed in the containment building and of sufficient strength and thickness to prevent collapse under the pressure exerted by overlaying materials and by any equipment used in the containment building. (Containment buildings can serve as secondary containment systems for tanks placed within the building under certain conditions. A containment building can serve as an external liner system for a tank, provided it meets the requirements of Section 724.193(e)(1). In addition, the containment building must meet the requirements of Section

724.193(b) and Sections 724.193(c)(1) and (c)(2) to be an acceptable secondary containment system for a tank.)

4) For existing units other than 90-day generator units, USEPA may delay the secondary containment requirement for up to two years, based on a demonstration by the owner or operator that the unit substantially meets the standards of this Subpart DD. In making this demonstration, the owner or operator must have done the following:

A) Provided written notice to USEPA of their request by November 16, 1992. This notification must have described the unit and its operating practices with specific reference to the performance of existing systems, and specific plans for retrofitting the unit with secondary containment;

B) Responded to any comments from USEPA on these plans within 30 days; and

C) Fulfilled the terms of the revised plans, if such plans are approved by USEPA.

c) An owner or operator of a containment building must do the following:

1) It must use controls and practice to ensure containment of the hazardous waste within the unit, and at a minimum:

A) Maintain the primary barrier to be free of significant cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be release from the primary barrier;

B) Maintain the level of the stored or treated hazardous waste within the containment walls of the unit so that the height of any containment wall is not exceeded;

C) Take measures to prevent the tracking of hazardous waste out of the unit by personnel or by equipment used in handling the waste. An area must be designated to decontaminate equipment and any rinsate must be collected and properly managed; and

D) Take measures to control fugitive dust emissions such that any openings (doors, windows, vents, cracks, etc.) exhibit no visible emissions (see Reference Method 22 (Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions

from Flares) in appendix A to 40 CFR 60 (Test Methods)), incorporated by reference in 35 Ill. Adm. Code 720.111(b). In addition, all associated particulate collection devices (e.g., fabric filter, electrostatic precipitator, etc.) must be operated and maintained with sound air pollution control practices (see 40 CFR 60 for guidance). This state of no visible emissions must be maintained effectively at all times during routine operating and maintenance conditions, including when vehicles and personnel are entering and exiting the unit.

BOARD NOTE: At 40 CFR 264.1101(c)(1)(iv) (2005), USEPA cites "40 CFR part 60, subpart 292." At 57 Fed. Reg. 37217 (Aug. 18, 1992), USEPA repeats this citation in the preamble discussion of adoption of the rules. No such provision exists in the Code of Federal Regulations. While 40 CFR 60.292 of the federal regulations pertains to control of fugitive dust emissions, that provision is limited in its application to glass melting furnaces. The Board has chosen to use the general citation: "40 CFR 60."

2) It must obtain and keep on site a certification by a qualified Professional Engineer that the containment building design meets the requirements of subsections (a) through (c) ~~of this Section~~.

3) Throughout the active life of the containment building, if the owner or operator detects a condition that could lead to or has caused a release of hazardous waste, it must repair the condition promptly, in accordance with the following procedures:

A) Upon detection of a condition that has led to a release of hazardous wastes (e.g., upon detection of leakage from the primary barrier) the owner or operator must do the following:

i) Enter a record of the discovery in the facility operating record;

ii) Immediately remove the portion of the containment building affected by the condition from service;

iii) Determine what steps must be taken to repair the containment building, remove any leakage from the secondary collection system, and establish a schedule for accomplishing the cleanup and repairs; and

iv) Within seven days after the discovery of the condition, notify the Agency in writing of the condition, and within 14 working days, provide a written notice to the Agency with a description of the steps taken to repair the containment building, and the schedule for accomplishing the work.

B) The Agency must review the information submitted, make a determination in accordance with Section 34 of the Act, regarding whether the containment building must be removed from service completely or partially until repairs and cleanup are complete, and notify the owner or operator of the determination and the underlying rationale in writing.

C) Upon completing all repairs and cleanup the owner and operator must notify the Agency in writing and provide a verification, signed by a qualified, registered professional engineer, that the repairs and cleanup have been completed according to the written plan submitted in accordance with subsection (c)(3)(A)(iv) ~~of this Section~~.

4) It must inspect and record in the facility's operating record, at least once every seven days, data gathered from monitoring and leak detection equipment, as well as the containment building and the area immediately surrounding the containment building, to detect signs of releases of hazardous waste.~~:~~

d) For a containment building that contains both areas with and without secondary containment, the owner or operator must do the following:

1) Design and operate each area in accordance with the requirements enumerated in subsections (a) through (c) ~~of this Section~~;

2) Take measures to prevent the release of liquids or wet materials into areas without secondary containment; and

3) Maintain in the facility's operating log a written description of the operating procedures used to maintain the integrity of areas without secondary containment.

e) Notwithstanding any other provision of this Subpart DD, the Agency must, in writing, allow the use of alternatives to the requirements for secondary containment for a permitted containment building where the Agency has determined that the facility owner or operator has adequately demonstrated that

the only free liquids in the unit are limited amounts of dust suppression liquids required to meet occupational health and safety requirements, and where containment of managed wastes and liquids can be assured without a secondary containment system.

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

Section 724.1102 Closure and Post-Closure Care

a) At closure of a containment building, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless 35 Ill. Adm. Code 721.103(e) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for containment buildings must meet all of the requirements specified in Subparts G and H of of this Part~~35 Ill. Adm. Code 739~~.

b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in subsection (a) ~~of this Section~~, the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he must close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills (Section~~35 Ill. Adm. Code~~ 724.310). In addition, for the purposes of closure, post-closure, and financial responsibility, such a containment building is then considered to be a landfill, and the owner or operator must meet all the requirements for landfills specified in Subparts G and H of this Part~~35 Ill. Adm. Code 739~~.

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

~~ILLINOIS REGISTER~~ JCAR350724-1604289r01

~~POLLUTION CONTROL BOARD~~

~~NOTICE OF PROPOSED AMENDMENTS~~

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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724.1202 Closure and Post-Closure Care

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

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

SOURCE: Adopted in R82-19 at 7 Ill. Reg. 14059, effective October 12, 1983; amended in R84-9 at 9 Ill. Reg. 11964, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 1136, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 14119, effective August 12, 1986; amended in R86-28 at 11 Ill. Reg. 6138, effective March 24, 1987; amended in R86-28 at 11 Ill. Reg. 8684, effective April 21, 1987; amended in R86-46 at 11 Ill. Reg. 13577, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19397, effective November 12, 1987; amended in R87-39 at 12 Ill. Reg. 13135, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 458, effective December 28, 1988; amended in R89-1 at 13 Ill. Reg. 18527, effective November 13, 1989; amended in R90-2 at 14 Ill. Reg. 14511, effective August 22, 1990; amended in R90-10 at 14 Ill. Reg. 16658, effective September 25, 1990; amended in R90-11 at 15 Ill. Reg. 9654, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14572, effective October 1, 1991; amended in R91-13 at 16 Ill. Reg. 9833, effective June 9, 1992; amended in R92-1 at 16 Ill. Reg. 17702, effective November 6, 1992; amended in R92-10 at 17 Ill. Reg. 5806, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20830, effective November 22, 1993; amended in R93-16 at 18 Ill. Reg. 6973, effective April 26, 1994; amended in R94-7 at 18 Ill. Reg. 12487, effective July 29, 1994; amended in R94-17 at 18 Ill. Reg. 17601, effective November 23, 1994; amended in R95-6 at 19 Ill. Reg. 9951, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 11244, effective August 1, 1996; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 636, effective December 16, 1997; amended in R98-12 at 22 Ill. Reg. 7638, effective April 15, 1998; amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. 17972, effective September 28, 1998; amended in R98-21/R99-2/R99-7 at 23 Ill. Reg. 2186, effective January 19, 1999; amended in R99-15 at 23 Ill. Reg. 9437, effective July 26, 1999; amended in R00-5 at 24 Ill. Reg. 1146, effective January 6, 2000; amended in R00-13 at 24 Ill. Reg. 9833, effective June 20, 2000; expedited correction at 25 Ill. Reg. 5115, effective June 20, 2000; amended in R02-1/R02-12/R02-17 at 26 Ill. Reg. 6635, effective April 22, 2002; amended in R03-7 at 27 Ill. Reg. 3725, effective February 14, 2003; amended in R05-8 at 29 Ill. Reg. 6009, effective April 13, 2005; amended in R05-2 at 29 Ill. Reg. 6365, effective April 22, 2005; amended in R06-5/R06-6/R06-7 at 30 Ill. Reg. 3196,

effective February 23, 2006; amended in R06-16/R06-17/R06-18 at 31 Ill. Reg. 893, effective December 20, 2006; amended in R07-5/R07-14 at 32 Ill. Reg. 12365, effective July 14, 2008; amended in R09-3 at 33 Ill. Reg. 1106, effective December 30, 2008; amended in R09-16/R10-4 at 34 Ill. Reg. 18873, effective November 12, 2010; amended in R11-2/R11-16 at 35 Ill. Reg. 17965, effective October 14, 2011; amended in R13-15 at 37 Ill. Reg. 17773, effective October 24, 2013; amended in R15-1 at 39 Ill. Reg. 1724, effective January 12, 2015; amended in R16-7 at 40 Ill. Reg. ~~—~~_____, effective _____~~_____~~.

SUBPART E: MANIFEST SYSTEM, RECORDKEEPING AND REPORTING

Section 724.171 Use of Manifest System

a) Receipt of manifested hazardous waste.

1) If a facility receives hazardous waste accompanied by a manifest, the owner, operator, or its agent must sign and date the manifest, as indicated in subsection (a)(2) of this Section, to certify that the hazardous waste covered by the manifest was received, that the hazardous waste was received except as noted in the discrepancy space of the manifest, or that the hazardous waste was rejected as noted in the manifest discrepancy space.

2) If a facility receives a hazardous waste shipment accompanied by a manifest, the owner, operator, or its agent must do the following:

A) The owner, operator, or agent must sign and date, by hand, each copy of the manifest;

B) The owner, operator, or agent must note any discrepancies (as defined in Section ~~725.172~~ ~~724.172~~724.172725.172) on each copy of the manifest;

C) The owner, operator, or agent must immediately give the transporter at least one copy of the manifest;

D) The owner, operator, or agent must send a copy (Page 3) of the manifest to the generator within 30 days after delivery;

E) Within 30 days after delivery, the owner, operator, or agent must send the top copy (Page 1) of the manifest to the e-Manifest System for purposes of data entry and processing. In lieu of mailing this paper copy to the e-Manifest System operator, the owner or operator may transmit to the e-Manifest System operator an image file of Page 1 of the manifest, or both a data string file and the image file corresponding to Page 1 of the manifest. Any data or image files transmitted to USEPA under this subsection (a) must be submitted in data file and image file formats that are acceptable to USEPA and that are supported by USEPA's electronic reporting requirements and by the e-Manifest System; and

F) The owner, operator, or agent must retain at the facility a copy of each manifest for at least three years after the date of delivery.

3) If a facility receives hazardous waste imported from a foreign source, the receiving facility must mail a copy of the manifest and documentation confirming USEPA's consent to the import of hazardous waste to the following address within 30 days after delivery: Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW, Washington, DC 20460.

b) If a facility receives, from a rail or water (bulk shipment) transporter, hazardous waste that is accompanied by a shipping paper containing all the information required on the manifest (excluding the USEPA identification numbers, generator's certification, and signatures), the owner or operator, or the owner or operator's agent, must do the following:

1) It must sign and date each copy of the manifest or shipping paper (if the manifest has not been received) to certify that the hazardous waste covered by the manifest or shipping paper was received;

2) It must note any significant discrepancies (as defined in Section 724.172(a)) in the manifest or shipping paper (if the manifest has not been received) on each copy of the manifest or shipping paper;

BOARD NOTE: The Board does not intend that the owner or operator of a facility whose procedures under Section 724.113(c) include waste analysis must perform that analysis before signing the shipping paper and giving it to the transporter. Section 724.172(b), however, requires reporting an unreconciled discrepancy discovered during later analysis.

3) It must immediately give the rail or water (bulk shipment) transporter at least one copy of the manifest or shipping paper (if the manifest has not been received);

4) The owner or operator must send a copy of the signed and dated manifest or a signed and dated copy of the shipping paper (if the manifest has not been received within 30 days after delivery) to the generator within 30 days after the delivery; and

BOARD NOTE: Section 722.123(c) requires the generator to send three copies of the manifest to the facility when hazardous waste is sent by rail or water (bulk shipment).

5) Retain at the facility a copy of the manifest and shipping paper (if signed in lieu of the manifest at the time of delivery) for at least three years from the date of delivery.

c) Whenever a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility must comply with the requirements of 35 Ill. Adm. Code 722.

BOARD NOTE: The provisions of 35 Ill. Adm. Code 722.134 are applicable to the on-site accumulation of hazardous wastes by generators. Therefore, the provisions of Section 722.134 only apply to owners or operators that are shipping hazardous waste that they generated at that facility.

d) Within three working days after the receipt of a shipment subject to Subpart H of 35 Ill. Adm. Code 722, the owner or operator of a facility must provide a copy of the movement document bearing all required signatures to the exporter; to the Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), Environmental Protection Agency, 1200 Pennsylvania Ave., NW, Washington, DC 20460; to the Bureau of

Land, Division of Land Pollution Control, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, IL 62794-9276; and to competent authorities of all other concerned countries. The original copy of the movement document must be maintained at the facility for at least three years from the date of signature.

e) A facility must determine whether the consignment state for a shipment regulates any additional wastes (beyond those regulated federally) as hazardous wastes under its state hazardous waste program. A facility must also determine whether the consignment state or generator state requires the facility to submit any copies of the manifest to that state.

f) Legal equivalence to paper manifests. E-Manifests that are obtained, completed, transmitted in accordance with 35 Ill. Adm. Code 722.120(a)(3), and used in accordance with this Section in lieu of the paper manifest form are the legal equivalent of paper manifest forms bearing handwritten signatures, and satisfy for all purposes any requirement in 35 Ill. Adm. Code 720 through 728 to obtain, complete, sign, provide, use, or retain a manifest.

1) Any requirement in 35 Ill. Adm. Code 720 through 728 for the owner or operator of a facility to sign a manifest or manifest certification by hand, or to obtain a handwritten signature, is satisfied by signing with or obtaining a valid and enforceable electronic signature within the meaning of 35 Ill. Adm. Code 722.125.

2) Any requirement in 35 Ill. Adm. Code 720 through 728 to give, provide, send, forward, or to return to another person a copy of the manifest is satisfied when a copy of an e-Manifest is transmitted to the other person.

3) Any requirement in 35 Ill. Adm. Code 720 through 728 for a manifest to accompany a hazardous waste shipment is satisfied when a copy of an e-Manifest is accessible during transportation and forwarded to the person or persons who are scheduled to receive delivery of the hazardous waste shipment.

4) Any requirement in 35 Ill. Adm. Code 720 through 728 for an owner or operator to keep or retain a copy of each manifest is satisfied by the retention of the facility~~'~~s e-Manifest copies in its account on the

e-Manifest System, provided that such copies are readily available for viewing and production if requested by any USEPA or Agency inspector.

5) No owner or operator may be held liable for the inability to produce an e-Manifest for inspection under this Section if the owner or operator can demonstrate that the inability to produce the e-Manifest is due exclusively to a technical difficulty with the e-Manifest System for which the owner or operator bears no responsibility.

g) An owner or operator may participate in the e-Manifest System either by accessing the e-Manifest System from the owner's or operator's electronic equipment, or by accessing the e-Manifest System from portable equipment brought to the owner's or operator's site by the transporter that delivers the waste shipment to the facility.

h) Special procedures applicable to replacement manifests. If a facility receives hazardous waste that is accompanied by a paper replacement manifest for a manifest that was originated electronically, the following procedures apply to the delivery of the hazardous waste by the final transporter:

1) Upon delivery of the hazardous waste to the designated facility, the owner or operator must sign and date each copy of the paper replacement manifest by hand in Item 20 (Designated Facility Certification of Receipt) and note any discrepancies in Item 18 (Discrepancy Indication Space) of the paper replacement manifest;

2) The owner or operator of the facility must give back to the final transporter one copy of the paper replacement manifest;

3) Within 30 days after delivery of the hazardous waste to the designated facility, the owner or operator of the facility must send one signed and dated copy of the paper replacement manifest to the generator and send an additional signed and dated copy of the paper replacement manifest to the e-Manifest System; and

4) The owner or operator of the facility must retain at the facility one copy of the paper replacement manifest for at least three years after the date of delivery.

i) Special procedures applicable to electronic signature methods undergoing tests. If an owner or operator using an e-Manifest signs this manifest electronically using an electronic signature method that is undergoing pilot or demonstration tests aimed at demonstrating the practicality or legal dependability of the signature method, the owner or operator must also sign with an ink signature the facility~~'~~'s certification of receipt or discrepancies on the printed copy of the manifest provided by the transporter. Upon executing its ink signature on this printed copy, the owner or operator must retain this original copy among its records for at least three years after the date of delivery of the waste.

j) Imposition of user fee for e-Manifest use. An owner or operator that is a user of the e-Manifest System may be assessed a user fee by USEPA for the origination or processing of each e-Manifest. An owner or operator may also be assessed a user fee by USEPA for the collection and processing of paper manifest copies that owners or operators must submit to the e-Manifest System operator under subsection 724.171(a)(2)(E) ~~(a)(2)(E)~~. USEPA has stated that it would maintain and update from time-to-time the current schedule of e-Manifest System user fees, which will be determined based on current and projected e-Manifest System costs and level of use of the e-Manifest System. USEPA has said that it would publish the current schedule of e-Manifest user fees as an appendix to 40 CFR 262.

k) E-Manifest signatures. E-Manifest signatures must meet the criteria described in 35 Ill. Adm. Code 722.125.

(Source: Amended at 40 Ill. Reg. ~~—~~ _____, effective _____ ~~_____~~)

SUBPART F: RELEASES FROM SOLID WASTE MANAGEMENT UNITS

Section 724.194 Concentration Limits

a) The Agency must specify in the facility permit concentration limits in the groundwater for hazardous constituents established under Section 724.193. The following must be true of the concentration of a hazardous constituent:

1) It must not exceed the background level of that constituent in the groundwater at the time that limit is specified in the permit; or

2) For any of the constituents listed in Table 1, it must not exceed the respective value given in that Table if the background level of the constituent is below the value given in Table 1; or

3) It must not exceed an alternative limit established by the Agency under subsection (b) of this Section.

~~TABLE 1 MAXIMUM CONCENTRATION OF CONSTITUENTS FOR GROUNDWATER PROTECTION~~

TABLE 1 – MAXIMUM CONCENTRATION OF CONSTITUENTS FOR GROUNDWATER PROTECTION

Constituent	Maximum Concentration (mg/ℓ)
Arsenic (CAS No. 7440-38-2)	0.05
Barium (CAS No. 7440-39-3)	1.0
Cadmium (CAS No. 7440-43-9)	0.01
Chromium (CAS No. 7440-47-3)	0.05
Lead (CAS No. 7439-92-1)	0.05
Mercury (CAS No. 7439-97-6)	0.002
Selenium (CAS No. 7782-49-2)	0.01
Silver (CAS No. 7440-22-4)	0.05
Endrin (1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo,endo-1,4:5,8-dimethanonaphthalene) (CAS No. 72-20-8)	0.0002
Lindane (1,2,3,4,5,6-hexachlorocyclohexane, gamma isomer) (CAS No. 58-89-9)	0.004
Methoxychlor (1,1,1-Trichloro-2,2~~'-bis-(p-methoxyphenyl)ethane)~~ ~~(1,1,1-Trichloro-2,2~~-bis(p-methoxyphenyl)ethane) (CAS No. 72-43-5)(1,1,1-Trichloro-2,2'-bis-(p-methoxyphenyl)ethane)	0.1

Toxaphene ($C_{10}H_{10}Cl_6$, Technical chlorinated camphene, 67-69 percent chlorine) (CAS No. 8001-35-2)	0.005
2,4-D (2,4-Dichlorophenoxyacetic acid) (CAS No. 94-75-7)	0.1
2,4,5-TP (Silvex) (2,4,5-~~Trichlorophenoxypropionic~~Trichloro phenoxy- propionic acid) (CAS No. 93-72-1)	0.01

b) The Agency must establish an alternative concentration limit for a hazardous constituent if it finds that the constituent will not pose a substantial present or potential hazard to human health or the environment as long as the alternative concentration limit is not exceeded. In establishing alternate concentration limits, the Agency must consider the following factors:

1) Potential adverse effects on groundwater quality, considering the following:

A) The physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;

B) The hydrogeological characteristics of the facility and surrounding land;

C) The quantity of groundwater and the direction of groundwater flow;

D) The proximity and withdrawal rates of groundwater users;

E) The current and future uses of groundwater in the area;

F) The existing quality of groundwater, including other sources of contamination and their cumulative impact on the groundwater quality;

G) The potential for health risks caused by human exposure to waste constituents;

H) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;

I) The persistence and permanence of the potential adverse effects; and

2) Potential adverse effects on hydraulically-connected surface-water quality, considering the following:

A) The volume and physical and chemical characteristics of the waste in the regulated unit;

B) The hydrogeological characteristics of the facility and surrounding land;

C) The quantity and quality of groundwater and the direction of groundwater flow;

D) The patterns of rainfall in the region;

E) The proximity of the regulated unit to surface waters;

F) The current and future uses of surface waters in the area and any water quality standards established for those surface waters;

G) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface-water quality;

H) The potential for health risks caused by human exposure to waste constituents;

I) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

J) The persistence and permanence of the potential adverse effects.

c) In making any determination under subsection (b) of this Section about the use of

groundwater in the area around the facility, the Agency must consider any identification of underground sources of drinking water and exempted aquifers made under 35 Ill. Adm. Code 704.123.

d) The Agency must make specific written findings in setting any alternate concentration limits under subsection (b) of this Section.

(Source: Amended at 40 Ill. Reg. _____~~—~~, effective _____~~———~~)

SUBPART H: FINANCIAL REQUIREMENTS

Section 724.244 Cost Estimate for Post-Closure Care

a) The owner or operator of a disposal surface impoundment, disposal miscellaneous unit, land treatment unit, or landfill unit or the owner or operator of a surface impoundment or waste pile required under Sections 724.328 or 724.358 to prepare a contingent closure and post-closure plan must have a ~~detailed~~defined written estimate, in current dollars, of the annual cost of post-closure monitoring and maintenance of the facility in accordance with the applicable post-closure regulations in Sections 724.217 through 724.220, 724.328, 724.358, 724.380, 724.410, and ~~724.603~~ ~~724.703.~~724.703724.603.

1) The post-closure cost estimate must be based on the costs to the owner or operator of hiring a third party to conduct post-closure care activities. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. (See definition of parent corporation in Section 724.241(d)).

2) The post-closure cost estimate is calculated by multiplying the annual post-closure cost estimate by the number of years of post-closure care required under Section 724.217.

b) During the active life of the facility, the owner or operator must adjust the post-closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instruments used to comply with Section 724.245. For owners or operators using the financial test or corporate guarantee, the post-closure cost estimate must be updated for inflation within 30 days after the close of the firm~~'~~'s fiscal year and before the submission of updated information to the Agency, as specified in Section 724.245(f)(5). The adjustment

may be made by recalculating the post-closure cost estimate in current dollars or by using an inflation factor derived from the annual Implicit Price Deflator for Gross National Product, as published by the U.S. Department of Commerce in its Survey of Current Business, as specified in subsections (b)(1) and (b)(2) of this Section. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

1) The first adjustment is made by multiplying the post-closure cost estimate by the inflation factor. The result is the adjusted post-closure cost estimate.

2) Subsequent adjustments are made by multiplying the latest adjusted post-closure cost estimate by the latest inflation factor.

c) During the active life of the facility the owner or operator must revise the post-closure cost estimate within 30 days after the Agency has approved a request to modify the post-closure plan if the change in the post-closure plan increases the cost of post-closure care. The revised post-closure cost estimate must be adjusted for inflation, as specified in Section 724.244(b).

d) The owner or operator must keep the following at the facility during the operating life of the facility: The latest post-closure cost estimate prepared in accordance with Section 724.244(a) and (c) and, when this estimate has been adjusted in accordance with Section 724.244(b), the latest adjusted post-closure cost estimate.

(Source: Amended at 40 Ill. Reg. ~~—~~ _____, effective _____ ~~_____~~)

Section 724.245 Financial Assurance for Post-Closure Care

An owner or operator of a hazardous waste management unit subject to the requirements of Section 724.244 must establish financial assurance for post-closure care in accordance with the approved post-closure plan for the facility 60 days prior to the initial receipt of hazardous waste or the effective date of the regulation, whichever is later. The owner or operator must choose from among the following options:

a) Post-closure trust fund.

1) An owner or operator may satisfy the requirements of this Section by

establishing a post-closure trust fund that conforms to the requirements of this subsection (a) and submitting an original, signed duplicate of the trust agreement to the Agency. An owner or operator of a new facility must submit the original, signed duplicate of the trust agreement to the Agency at least 60 days before the date on which hazardous waste is first received for disposal. The trustee must be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or State agency.

2) The wording of the trust agreement must be that specified in Section 724.251 and the trust agreement accompanied by a formal certification of acknowledgment (as specified in Section 724.251). Schedule A of the trust agreement must be updated within 60 days after a change in the amount of the current post-closure cost estimate covered by the agreement.

3) Payments into the trust fund must be made annually by the owner or operator over the term of the initial RCRA permit or over the remaining operating life of the facility as estimated in the closure plan, whichever period is shorter; this period is hereafter referred to as the "pay-in period." The payments into the post-closure trust fund must be made as follows:

A) For a new facility, the first payment must be made before the initial receipt of hazardous waste for disposal. A receipt from the trustee for this payment must be submitted by the owner or operator to the Agency before this initial receipt of hazardous waste. The first payment must be at least equal to the current post-closure cost estimate, except as provided in subsection (g) of this Section, divided by the number of years in the pay-in period. Subsequent payments must be made no later than 30 days after each anniversary date of the first payment. The amount of each subsequent payment must be determined by the following formula:

$$\text{Next Payment} = \frac{(CE - CV)}{Y}$$

Where:

~~CE =~~ ~~the current closure cost estimate~~
~~CV =~~ ~~the current value of the trust fund~~
~~Y =~~ ~~the number of years remaining in the pay-in period~~

CE ≡ the current closure cost estimate
CV ≡ the current value of the trust fund
Y ≡ the number of years remaining in the pay-in period

B) If an owner or operator establishes a trust fund, as specified in 35 Ill. Adm. Code 725.245(a), and the value of that trust fund is less than the current post-closure cost estimate when a permit is awarded for the facility, the amount of the current post-closure cost estimate still to be paid into the trust fund must be paid in over the pay-in period as defined in subsection (a)(3) of this Section. Payments must continue to be made no later than 30 days after each anniversary date of the first payment made pursuant to 35 Ill. Adm. Code 725. The amount of each payment must be determined by the following formula:

$$\text{Next Payment} = \frac{(CE - CV)}{Y}$$

Where:

~~CE =~~ ~~the current closure cost estimate~~
~~CV =~~ ~~the current value of the trust fund~~
~~Y =~~ ~~the number of years remaining in the pay-in period~~

CE ≡ the current closure cost estimate

CV = the current value of the trust fund
Y = the number of years remaining in the pay-in period

4) The owner or operator may accelerate payments into the trust fund or may deposit the full amount of the current post-closure cost estimate at the time the fund is established. However, the owner or operator must maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in subsection (a)(3) of this Section.

5) If the owner or operator establishes a post-closure trust fund after having used one or more alternative mechanisms specified in this Section or in 35 Ill. Adm. Code 725.245, its first payment must be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made according to specifications of this subsection (a) and 35 Ill. Adm. Code 725.245, as applicable.

6) After the pay-in period is completed, whenever the current post-closure cost estimate changes during the operating life of the facility, the owner or operator must compare the new estimate with the trustee~~'~~'s most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, must either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current post-closure cost estimate, or obtain other financial assurance, as specified in this Section, to cover the difference.

7) During the operating life of the facility, if the value of the trust fund is greater than the total amount of the current post-closure cost estimate, the owner or operator may submit a written request to the Agency for release of the amount in excess of the current post-closure cost estimate.

8) If an owner or operator substitutes other financial assurance as specified in this Section for all or part of the trust fund, it may submit a written request to the Agency for release of the amount in excess of the current post-closure cost estimate covered by the trust fund.

9) Within 60 days after receiving a request from the owner or operator for

release of funds, as specified in subsection (a)(7) or (a)(8) of this Section, the Agency must instruct the trustee to release to the owner or operator such funds as the Agency specifies in writing.

10) During the period of post-closure care, the Agency must approve a release of funds if the owner or operator demonstrates to the Agency that the value of the trust fund exceeds the remaining cost of post-closure care.

11) An owner or operator or any other person authorized to perform post-closure care may request reimbursement for post-closure care expenditures by submitting itemized bills to the Agency. Within 60 days after receiving bills for post-closure activities, the Agency must instruct the trustee to make requirements in those amounts that the Agency specifies in writing if the Agency determines that the post-closure care expenditures are in accordance with the approved post-closure plan or otherwise justified. If the Agency does not instruct the trustee to make such reimbursements, the Agency must provide the owner or operator with a detailed written statement of reasons.

12) The Agency must agree to termination of the trust when either of the following occurs:

A) An owner or operator substitutes alternative financial assurance, as specified in this Section; or

B) The Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) of this Section.

b) Surety bond guaranteeing payment into a post-closure trust fund.

1) An owner or operator may satisfy the requirements of this Section by obtaining a surety bond that conforms to the requirements of this subsection (b) and submitting the bond to the Agency. An owner or operator of a new facility must submit the bond to the Agency at least 60 days before the date on which hazardous waste is first received for disposal. The bond must be effective before this initial receipt of hazardous waste. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on federal bonds in

Circular 570 of the U.S. Department of the Treasury.

BOARD NOTE: The U.S. Department of the Treasury updates Circular 570, ~~"~~"Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies,~~"~~" on an annual basis pursuant to 31 CFR 223.16. Circular 570 is available on the Internet from the following website: http://www.fms.treas.gov/c570/.

2) The wording of the surety bond must be that specified in Section 724.251.

3) The owner or operator who uses a surety bond to satisfy the requirements of this Section must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Agency. This standby trust fund must meet the requirements specified in subsection (a) of this Section, except as follows:

   A) An original, signed duplicate of the trust agreement must be submitted to the Agency with the surety bond; and

   B) Until the standby trust fund is funded pursuant to the requirements of this Section, the following are not required by these regulations:

      i) Payments into the trust fund, as specified in subsection (a) of this Section;

      ii) Updating of Schedule A of the trust agreement (as specified in Section 724.251) to show current post-closure cost estimates;

      iii) Annual valuations, as required by the trust agreement; and

      iv) Notices of nonpayment, as required by the trust agreement.

4) The bond must guarantee that the owner or operator will do one of the following:

   A) Fund the standby trust fund in an amount equal to the penal sum of

the bond before the beginning of final closure of the facility;

B) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an order to begin closure is issued by the Board or a U.S. district court or other court of competent jurisdiction; or

C) Provide alternative financial assurance as specified in this Section, and obtain the Agency~~'~~'s written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Agency of a notice of cancellation of the bond from the surety.

5) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

6) The penal sum of the bond must be in an amount at least equal to the current post-closure cost estimate, except as provided in subsection (g) of this Section.

7) Whenever the current post-closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Agency or obtain other financial assurance, as specified in this Section, to cover the increase. Whenever the current post-closure cost estimate decreases, the penal sum may be reduced to the amount of the current post-closure cost estimate following written approval by the Agency.

8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Agency. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Agency, as evidence by the return receipts.

9) The owner or operator may cancel the bond if the Agency has given prior

written consent based on its receipt of evidence of alternative financial assurance, as specified in this Section.

c) Surety bond guaranteeing performance of post-closure care.

1) An owner or operator may satisfy the requirements of this Section by obtaining a surety bond that conforms to the requirements of this subsection (c) and submitting the bond to the Agency. An owner or operator of a new facility must submit the bond to the Agency at least 60 days before the date on which hazardous waste is first received for disposal. The bond must be effective before this initial receipt of hazardous waste. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on federal bonds in Circular 570 of the U.S. Department of the Treasury.

BOARD NOTE: The U.S. Department of the Treasury updates Circular 570, "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies," on an annual basis pursuant to 31 CFR 223.16. Circular 570 is available on the Internet from the following website: http://www.fms.treas.gov/c570/.

2) The wording of the surety bond must be that specified in Section 724.251.

3) The owner or operator who uses a surety bond to satisfy the requirements of this Section must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Agency. This standby trust must meet the requirements specified in subsection (a) of this Section, except as follows:

A) An original, signed duplicate of the trust agreement must be submitted to the Agency with the surety bond; and

B) Unless the standby trust fund is funded pursuant to the requirements of this Section, the following are not required:

i) Payments into the trust fund, as specified in subsection (a) of this Section;

ii) Updating of Schedule A of the trust agreement (as specified in Section 724.251) to show current post-closure cost estimates;

iii) Annual valuations, as required by the trust agreement; and

iv) Notices of nonpayment, as required by the trust agreement.

4) The bond must guarantee that the owner or operator will do either of the following:

A) Perform final post-closure care in accordance with the post-closure plan and other requirements of the permit for the facility; or

B) Provide alternative financial assurance, as specified in this Section, and obtain the Agency~~'~~'s written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Agency of a notice of cancellation of the bond from the surety.

5) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond. Following a final judicial determination or Board order finding that the owner or operator has failed to perform post-closure care in accordance with the approved post-closure plan and other permit requirements, under the terms of the bond the surety will perform post-closure care in accordance with post-closure plan and other permit requirements or will deposit the amount of the penal sum into the standby trust fund.

6) The penal sum of the bond must be in an amount at least equal to the current post-closure cost estimate.

7) Whenever the current post-closure cost estimate increases to an amount greater than the penal sum during the operating life of the facility, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current

post-closure cost estimate and submit evidence of such increase to the Agency, or obtain other financial assurance, as specified in this Section. Whenever the current closure cost estimate decreases during the operating life of the facility, the penal sum may be reduced to the amount of the current post-closure cost estimate following written approval by the Agency.

8) During the period of post-closure care, the Agency must approve a decrease in the penal sum if the owner or operator demonstrates to the Agency that the amount exceeds the remaining cost of post-closure care.

9) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Agency. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Agency, as evidenced by the return receipts.

10) The owner or operator may cancel the bond if the Agency has given prior written consent. The Agency must provide such written consent when either of the following occurs:

A) An owner or operator substitutes alternative financial assurance as specified in this Section; or

B) The Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) of this Section.

11) The surety will not be liable for deficiencies in the performance of post-closure care by the owner or operator after the Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) of this Section.

d) Post-closure letter of credit.

1) An owner or operator may satisfy the requirements of this Section by obtaining an irrevocable standby letter of credit that conforms to the requirements of this subsection (d) and submitting the letter to the Agency. An owner or operator of a new facility must submit the letter of credit to

the Agency at least 60 days before the date on which hazardous waste is first received for disposal. The letter of credit must be effective before this initial receipt of hazardous waste. The issuing institution must be an entity that has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a federal or State agency.

2) The wording of the letter of credit must be that specified in Section 724.251.

3) An owner or operator who uses a letter of credit to satisfy the requirements of this Section must also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Agency must be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Agency. This standby trust fund must meet the requirements of the trust fund specified in subsection (a) of this Section, except as follows:

   A) An original, signed duplicate of the trust agreement must be submitted to the Agency with the letter of credit; and

   B) Unless the standby trust fund is funded pursuant to the requirements of this Section, the following are not required by these regulations:

      i) Payments into the trust fund, as specified in subsection (a) of this Section;

      ii) Updating of Schedule A of the trust agreement (as specified in Section 724.251) to show current post-closure cost estimates;

      iii) Annual valuations, as required by the trust agreement; and

      iv) Notices of nonpayment, as required by the trust agreement.

4) The letter or credit must be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date and providing the following information: the USEPA identification

number, name and address of the facility, and the amount of funds assured for post-closure care of the facility by the letter of credit.

5) The letter of credit must be irrevocable and issued for a period of at least one year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least one year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the Agency by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the Agency have received the notice, as evidenced by the return receipts.

6) The letter of credit must be issued in an amount at least equal to the current post-closure cost estimate, except as provided in subsection (g) of this Section.

7) Whenever the current post-closure cost estimate increases to an amount greater than the amount of the credit during the operating life of the facility, the owner or operator, within 60 days after the increase, must either cause the amount of the credit to be increased so that it at least equals the current post-closure cost estimate and submit evidence of such increase to the Agency, or obtain other financial assurance as specified in this Section to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the amount of the credit may be reduced to the amount of the current post-closure cost estimate following written approval by the Agency.

8) During the period of post-closure care, the Agency must approve a decrease in the amount of the letter of credit if the owner or operator demonstrates to the Agency that the amount exceeds the remaining cost of post-closure care.

9) Following a final judicial determination or Board order finding that the owner or operator has failed to perform post-closure care in accordance with the approved post-closure plan and other permit requirements, the Agency may draw on the letter of credit.

10) If the owner or operator does not establish alternative financial assurance,

as specified in this Section, and obtain written approval of such alternative assurance from the Agency within 90 days after receipt by both the owner or operator and the Agency of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Agency must draw on the letter of credit. The Agency may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the Agency must draw on the letter of credit if the owner or operator has failed to provide alternative financial assurance, as specified in this Section, and obtain written approval of such assurance from the Agency.

11) The Agency must return the letter of credit to the issuing institution for termination when either of the following occurs:

A) An owner or operator substitutes alternative financial assurance, as specified in this Section; or

B) The Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) of this Section.

e) Post-closure insurance.

1) An owner or operator may satisfy the requirements of this Section by obtaining post-closure insurance that conforms to the requirements of this subsection (e) and submitting a certificate of such insurance to the Agency. An owner or operator of a new facility must submit the certificate of insurance to the Agency at least 60 days before the date on which hazardous waste is first received for disposal. The insurance must be effective before this initial receipt of hazardous waste. At a minimum, the insurer must be licensed to transact the business of insurance or be eligible to provide insurance as an excess or surplus lines insurer in one or more states.

2) The wording of the certificate of insurance must be that specified in Section 724.251.

3) The post-closure insurance policy must be issued for a face amount at least equal to the current post-closure cost estimate, except as provided in

subsection (g) of this Section. The term ~~"~~"face amount"~~"~~ means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer~~'~~'s future liability will be lowered by the amount of the payments.

4) The post-closure insurance policy must guarantee that funds will be available to provide post-closure care of facility whenever the post-closure period begins. The policy must also guarantee that, once post-closure care begins, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Agency to such party or parties as the Agency specifies.

5) An owner or operator or any other person authorized to perform post-closure care may request reimbursement for post-closure care expenditures by submitting itemized bills to the Agency. Within 60 days after receiving bills for post-closure activities, the Agency must instruct the insurer to make reimbursement in such amounts as the Agency specifies in writing if the Agency determines that the post-closure care expenditures are in accordance with the approved post-closure plan or otherwise justified. If the Agency does not instruct the insurer to make such reimbursements, the Agency must provide the owner or operator with a detailed written statement of reasons.

6) The owner or operator must maintain the policy in full force and effect until the Agency consents to termination of the policy by the owner or operator as specified in subsection (e)(11) of this Section. Failure to pay the premium, without substitution of alternative financial assurance as specified in this Section, will constitute a significant violation of these regulations, warranting such remedy as the Board may impose pursuant to the Environmental Protection Act [415 ILCS 5]. Such violation will be deemed to begin upon receipt by the Agency of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

7) Each policy must contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

8) The policy must provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the Agency. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Agency and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur, and the policy will remain in full force and effect, in the event that on or before the date of expiration one of the following occurs:

A) The Agency deems the facility abandoned;

B) The permit is terminated or revoked or a new permit is denied;

C) Closure is ordered by the Board or a U.S. district court or other court of competent jurisdiction;

D) The owner or operator is named as debtor in a voluntary or involuntary proceeding under 11 USC (Bankruptcy); or

E) The premium due is paid.

9) Whenever the current post-closure cost estimate increases to an amount greater than the face amount of the policy during the life of the facility, the owner or operator, within 60 days after the increase, must either cause the face amount to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Agency or obtain other financial assurance, as specified in this Section, to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the face amount may be reduced to the amount of the current post-closure cost estimate following written approval by the Agency.

10) Commencing on the date that liability to make payments pursuant to the

policy accrues, the insurer must thereafter annually increase the face amount of the policy. Such increase must be equivalent to the face amount of the policy, less any payments made, multiplied by an amount equivalent to 85 percent of the most recent investment rate or of the equivalent coupon-issue yield announced by the U.S. Treasury for 26-week Treasury securities.

11) The Agency must give written consent to the owner or operator that the owner or operator may terminate the insurance policy when either of the following occurs:

A) An owner or operator substitutes alternative financial assurance, as specified in this Section; or

B) The Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) of this Section.

f) Financial test and corporate guarantee for post-closure care.

1) An owner or operator may satisfy the requirements of this Section by demonstrating that it passes a financial test as specified in this subsection (f). To pass this test the owner or operator must meet the criteria of either subsection (f)(1)(A) or (f)(1)(B) of this Section:

A) The owner or operator must have the following:

i) Two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5;

ii) Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates;

iii) Tangible net worth of at least $10 million; and

iv) Assets in the United States amounting to at least 90 percent of its total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

B) The owner or operator must have the following:

i) A current rating for its most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor~~'~~s or Aaa, Aa, A, or Baa as issued by Moody~~'~~s;

ii) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates and current plugging and abandonment cost estimates;

iii) Tangible net worth of at least $10 million; and

iv) Assets located in the United States amounting to at least 90 percent of its total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

2) The phrase ~~"~~"current closure and post-closure cost estimates,~~"~~" as used in subsection (f)(1) of this Section, refers to the cost estimates required to be shown in subsections 1 through 4 of the letter from the owner~~'~~s or operator~~'~~s chief financial officer (see Section 724.251). The phrase ~~"~~"current plugging and abandonment cost estimates,~~"~~" as used in subsection (f)(1) of this Section, refers to the cost estimates required to be shown in subsections 1 through 4 of the letter from the owner~~'~~s or operator~~'~~s chief financial officer (see 35 Ill. Adm. Code 704.240).

3) To demonstrate that it meets this test, the owner or operator must submit the following items to the Agency:

A) A letter signed by the owner~~'~~s or operator~~'~~s chief financial officer and worded as specified in Section 724.251;

B) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

C) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating the following:

i) The accountant has compared the data that the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

ii) In connection with that procedure, no matters came to the accountant's attention that caused the accountant to believe that the specified data should be adjusted.

4) An owner or operator of a new facility must submit the items specified in subsection (f)(3) of this Section to the Agency at least 60 days before the date on which hazardous waste is first received for disposal.

5) After the initial submission of items specified in subsection (f)(3) of this Section, the owner or operator must send updated information to the Agency within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in subsection (f)(3) of this Section.

6) If the owner or operator no longer meets the requirements of subsection (f)(1) of this Section, the owner or operator must send notice to the Agency of intent to establish alternative financial assurance, as specified in this Section. The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements the owner or operator must provide the alternative financial assurance within 120 days after the end of such fiscal year.

7) Based on a reasonable belief that the owner or operator may no longer

meet the requirements of subsection (f)(1) of this Section, the Agency may require reports of financial condition at any time from the owner or operator in addition to those specified in subsection (f)(3) of this Section. If the Agency finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of subsection (f)(1) of this Section, the owner or operator must provide alternative financial assurance, as specified in this Section, within 30 days after notification of such a finding.

8) The Agency may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in the accountant~~'~~s report on examination of the owner~~'~~s or operator~~'~~s financial statements (see subsection (f)(3)(B) of this Section). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Agency must evaluate other qualifications on an individual basis. The owner or operator must provide alternative financial assurance, as specified in this Section, within 30 days after notification of the disallowance.

9) During the period of post-closure care, the Agency must approve a decrease in the current post-closure cost estimate for which this test demonstrates financial assurance if the owner or operator demonstrates to the Agency that the amount of the cost estimate exceeds the remaining cost of post-closure care.

10) The owner or operator is no longer required to submit the items specified in subsection (f)(3) of this Section when either of the following occurs:

A) An owner or operator substitutes alternative financial assurance, as specified in this Section; or

B) The Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) of this Section.

11) An owner or operator may meet the requirements of this Section by obtaining a written guarantee, hereafter referred to as ~~"~~"corporate guarantee.~~"~~". The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a

~~"~~"substantial business relationship~~"~~" with the owner or operator. The guarantor must meet the requirements for owners or operators in subsections (f)(1) through (f)(9), and must comply with the terms of the corporate guarantee. The wording of the corporate guarantee must be that specified in Section 724.251. A certified copy of the corporate guarantee must accompany the items sent to the Agency, as specified in subsection (f)(3) of this Section. One of these items must be the letter from the guarantor~~'~~s chief financial officer. If the guarantor~~'~~s parent corporation is also the parent corporation of the owner or operator, the letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a ~~"~~"substantial business relationship~~"~~" with the owner or operator, this letter must describe this ~~"~~"substantial business relationship~~"~~" and the value received in consideration of the guarantee. The terms of the corporate guarantee must provide as follows:

A) That if the owner or operator fails to perform post-closure care of a facility covered by the corporate guarantee in accordance with the post-closure plan and other permit requirements whenever required to do so, the guarantor will do so or establish a trust fund as specified in subsection (a) of this Section in the name of the owner or operator.

B) That the corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Agency. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Agency, as evidenced by the return receipts.

C) That if the owner or operator fails to provide alternative financial assurance as specified in this Section and obtain the written approval of such alternative assurance from the Agency within 90 days after receipt by both the owner or operator and the Agency of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternative financial assurance in the name of the owner or operator.

g) Use of multiple financial mechanisms. An owner or operator may satisfy the

requirements of this Section by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds guaranteeing payment into a trust fund, letters of credit and insurance. The mechanisms must be as specified in subsections (a), (b), (d), and (e) of this Section, respectively, except that it is the combination of mechanisms, rather than the single mechanism, that must provide financial assurance for an amount at least equal to the current post-closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, it may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The Agency may use any or all of the mechanisms to provide for post-closure care of the facility.

h) Use of a financial mechanism for multiple facilities. An owner or operator may use a financial assurance mechanism specified in this Section to meet the requirements of this Section for more than one facility. Evidence of financial assurance submitted to the Agency must include a list showing, for each facility, the USEPA identification number, name, address, and the amount of funds for post-closure care assured by the mechanism. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. The amount of funds available to the Agency must be sufficient to close all of the owner or operator~~'~~'s facilities. In directing funds available through the mechanism for post-closure care of any of the facilities covered by the mechanism, the Agency may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

i) Release of the owner or operator from the requirements of this Section. Within 60 days after receiving certifications from the owner or operator and a qualified Professional Engineer that the post-closure care period has been completed for a hazardous waste disposal unit in accordance with the approved plan, the Agency must notify the owner or operator that it is no longer required to maintain financial assurance ~~forpost-closure~~ for post-closure care of that unit, unless the Agency determines that post-closure care has not been in accordance with the approved post-closure plan. The Agency must provide the owner or operator a detailed written statement of any such determination that post-closure care has not been in accordance with the approved post-closure plan.

j) Appeal. The following Agency actions are deemed to be permit modifications or refusals to modify for purposes of appeal to the Board (35 Ill. Adm. Code 702.184(e)(3)):

1) An increase in or a refusal to decrease the amount of a bond, letter of credit, or insurance;

2) Requiring alternative assurance upon a finding that an owner or operator or parent corporation no longer meets a financial test.

(Source: Amended at 40 Ill. Reg. ~~—~~ _____, effective _____ ~~_____~~)

SUBPART N: LANDFILLS

Section 724.414 Special Requirements for Bulk and Containerized Liquids

a) The placement of bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids (whether or not sorbents have been added) in any landfill is prohibited.

b) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 9095B (Paint Filter Liquids Test), as described in ~~"~~"Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods,~~"~~" USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

c) Containers holding free liquids must not be placed in a landfill unless the following is true:

1) All free-standing liquid fulfills one of the following:

A) It has been removed by decanting or other methods;

B) It has been mixed with sorbent or solidified so that free-standing liquid is no longer observed; or

C) It has been otherwise eliminated; or

2) The container is very small, such as an ampule; or

3) The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or

4) The container is a lab pack, as defined in Section 724.416, and is disposed of in accordance with Section 724.416.

d) Sorbents used to treat free liquids to be disposed of in landfills must be nonbiodegradable. Nonbiodegradable sorbents are the following: materials listed or described in subsection (d)(1) of this Section; materials that pass one of the tests in subsection (d)(2)(e)(2) of this Section ~~(d)(2)~~; or materials that are determined by the Board to be nonbiodegradable through the adjusted standard procedure of 35 Ill. Adm. Code 104.

1) Nonbiodegradable sorbents are the following:

A) Inorganic minerals, other inorganic materials, and elemental carbon (e.g., aluminosilicates (clays, smectites, Fuller~~'~~'s earth, bentonite, calcium bentonite, montmorillonite, calcined montmorillonite, kaolinite, micas (illite), vermiculites, zeolites, etc.), calcium carbonate (organic free limestone), oxides/hydroxides (alumina, lime, silica (sand), diatomaceous earth, etc.), perlite (volcanic glass), expanded volcanic rock, volcanic ash, cement kiln dust, fly ash, rice hull ash, activated charcoal (activated carbon), etc.); or

B) High molecular weight synthetic polymers (e.g., polyethylene, high density polyethylene (HDPE), polypropylene, polystrene, polyurethane, polyacrylate, polynorborene, polyisobutylene, ground synthetic rubber, cross-linked allylstrene and tertiary butyl copolymers, etc.). This does not include polymers derived from biological material or polymers specifically designed to be degradable; or

C) Mixtures of these nonbiodegradable materials.

2) Tests for nonbiodegradable sorbents are the following:

A) The sorbent material is determined to be nonbiodegradable under ASTM Method G21-70 (1984a) (Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi), incorporated by reference in 35 Ill. Adm. Code 720.111(a);

B) The sorbent material is determined to be nonbiodegradable under ASTM Method G22-76 (1984b) (Standard Practice for Determining Resistance of Plastics to Bacteria), incorporated by reference in 35 Ill. Adm. Code 720.111(a); or

C) The sorbent material is determined to be non-biodegradable under OECD Guideline for Testing of Chemicals, Method 301B (CO_2 Evolution (Modified Sturm Test)), incorporated by reference in 35 Ill. Adm. Code 720.111(a).

e) The placement of any liquid that is not a hazardous waste in a hazardous waste landfill is prohibited (35 Ill. Adm. Code 729.311), unless the Board finds that the owner or operator has demonstrated the following in a petition for an adjusted standard pursuant to Section 28.1 of the Act [415 ILCS 5/28.1] and 35 Ill. Adm. Code 101 and 104:

1) The only reasonably available alternative to the placement in a hazardous waste landfill is placement in a landfill or unlined surface impoundment, whether or not permitted or operating under interim status, that contains or which may reasonably be anticipated to contain hazardous waste; and

2) Placement in the hazardous waste landfill will not present a risk of contamination of any "underground source of drinking water" (as that term is defined in 35 Ill. Adm. Code 702.110).

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

SUBPART W: DRIP PADS

Section 724.670 Applicability

a) The requirements of this Subpart W apply to owners and operators of facilities that use new or existing drip pads to convey treated wood drippage, precipitation,

or surface water run-on to an associated collection system.

1) ~~"~~Existing drip pads~~"~~ are the following:

A) Those constructed before December 6, 1990; and

B) Those for which the owner or operator had a design and had entered into binding financial or other agreements for construction prior to December 6, 1990.

2) All other drip pads are ~~"~~new drip pads.~~"~~

3) The requirements at Section 724.673(b)(3) to install a leak collection system applies only to those drip pads that were constructed after December 24, 1992 except for those constructed after December 24, 1992 for which the owner or operator had a design and has entered into binding financial or other agreements for construction prior to December 24, 1992.

b) The owner or operator of any drip pad that is inside or under a structure that provides protection from precipitation so that neither run-off nor run-on is generated is not subject to regulation under Section 724.673(e)724.672(e) ~~724.673(e)~~ or (f).

c) The requirements of this subsection (c) are not applicable to the management of infrequent and incidental drippage in storage yards provided that the owner or operator maintains and complies with a written contingency plan that describes how the owner or operator will respond immediately to the discharge of infrequent and incidental drippage. At a minimum, the contingency plan must describe how the owner or operator will do the following:

1) Clean up the drippage;

2) Document the clean-up of the drippage;

3) Retain documentation regarding the clean-up for three years; and

4) Manage the contaminated media in a manner consistent with State and federal regulations.

(Source: Amended at 40 Ill. Reg. ~~—~~_____, effective _____~~_____~~)

Section 724.671 Assessment of Existing Drip Pad Integrity

a) For each existing drip pad, the owner or operator must evaluate the drip pad and determine whether it meets all of the requirements of this Subpart W, except the requirements for liners and leak detection systems of Section 724.673(b). No later than June 6, 1991, the owner or operator must obtain and keep on file at the facility a written assessment of the drip pad, reviewed and certified by a qualified Professional Engineer that attests to the results of the evaluation. The assessment must be reviewed, updated, and re-certified annually until all upgrades, repairs or modifications necessary to achieve compliance with all the standards of Section 724.673 are complete. The evaluation must document the extent to which the drip pad meets each of the design and operating standards of Section 724.673, except the standards for liners and leak detection systems, specified in Section 724.673(b).

b) The owner or operator must develop a written plan for upgrading, repairing, and modifying the drip pad to meet the requirements of Section 724.673(b) and submit the plan to the Agency no later than two years before the date that all repairs, upgrades and modifications will be complete. This written plan must describe all changes to be made to the drip pad in sufficient detail to document compliance with all the requirements of Section 724.673. The plan must be reviewed and certified by a qualified Professional Engineer.

c) Upon completion of all upgrades, repairs, and modifications, the owner or operator must submit to the Agency, the as-built drawings for the drip pad, together with a certification by a qualified Professional Engineer attesting that the drip pad conforms to the drawings.

d) If the drip pad is found to be leaking or unfit for use, the owner or operator must comply with the provisions of Section 724.673(m)724.672(m) ~~724.673(m)~~ or close the drip pad in accordance with Section 724.675.

(Source: Amended at 40 Ill. Reg. ~~—~~_____, effective _____~~_____~~)

SUBPART AA: AIR EMISSION STANDARDS FOR PROCESS VENTS

Section 724.933 Standards: Closed-Vent Systems and Control Devices

a) Compliance Required.

1) Owners or operators of closed-vent systems and control devices used to comply with provisions of this Part must comply with the provisions of this Section.

2) Implementation Schedule.

A) The owner or operator of an existing facility that cannot install a closed-vent system and control device to comply with the provisions of this Subpart AA on the effective date that the facility becomes subject to the provisions of this Subpart AA must prepare an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The controls must be installed as soon as possible, but the implementation schedule may allow up to 30 months after the effective date that the facility becomes subject to this Subpart AA for installation and startup.

B) Any unit that began operation after December 21, 1990 and which was subject to the provisions of this Subpart AA when operation began must comply with the rules immediately (i.e., must have control devices installed and operating on startup of the affected unit); the 30-month implementation schedule does not apply.

C) The owner or operator of any facility in existence on the effective date of a statutory or regulatory amendment that renders the facility subject to this Subpart AA must comply with all requirements of this Subpart AA as soon as practicable, but no later than 30 months after the effective date of the amendment. When control equipment required by this Subpart AA cannot be installed and begin operation by the effective date of the amendment, the facility owner or operator must prepare an implementation schedule that includes the following information: specific calendar dates for award of contracts or issuance of purchase orders for the control

equipment, initiation of on-site installation of the control equipment, completion of the control equipment installation, and performance of any testing to demonstrate that the installed equipment meets the applicable standards of this Subpart AA. The owner or operator must enter the implementation schedule in the operating record or in a permanent, readily available file located at the facility.

D) An owner or operator of a facility or unit that becomes newly subject to the requirements of this Subpart AA after December 8, 1997, due to an action other than those described in subsection (a)(2)(C) of this Section, must comply with all applicable requirements immediately (i.e., the facility or unit must have control devices installed and operating on the date the facility or unit becomes subject to this Subpart AA; the 30-month implementation schedule does not apply).

b) A control device involving vapor recovery (e.g., a condenser or adsorber) must be designed and operated to recover the organic vapors vented to it with an efficiency of 95 weight percent or greater unless the total organic emission limits of Section 724.932(a)(1) for all affected process vents is attained at an efficiency less than 95 weight percent.

c) An enclosed combustion device (e.g., a vapor incinerator, boiler, or process heater) must be designed and operated to reduce the organic emissions vented to it by 95 weight percent or greater; to achieve a total organic compound concentration of 20 ppmv, expressed as the sum of the actual compounds and not in carbon equivalents, on a dry basis, corrected to three percent oxygen; or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 ° C. If a boiler or process heater is used as the control device, then the vent stream must be introduced into the flame zone of the boiler or process heater.

d) Flares.

1) A flare must be designed for and operated with no visible emissions, as determined by the methods specified in subsection (e)(1) of this Section, except for periods not to exceed a total of five minutes during any two consecutive hours.

2) A flare must be operated with a flame present at all times, as determined by the methods specified in subsection (f)(2)(C) of this Section.

3) A flare must be used only if the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater and the flare is steam-assisted or air-assisted or if the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater and the flare is nonassisted. The net heating value of the gas being combusted must be determined by the methods specified in subsection (e)(2) of this Section.

4) Exit Velocity.

   A) A steam-assisted or nonassisted flare must be designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this Section, less than 18.3 m/s (60 ft/s), except as provided in subsections (d)(4)(B) and (d)(4)(C) of this Section.

   B) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this Section, equal to or greater than 18.3 m/s (60 ft/s) but less than 122 m/s (400 ft/s) is allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

   C) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this Section, less than the velocity, V, as determined by the method specified in subsection (e)(4) of this Section, and less than 122 m/s (400 ft/s) is allowed.

5) An air-assisted flare must be designed and operated with an exit velocity less than the velocity, V, as determined by the method specified in subsection (e)(5) of this Section.

6) A flare used to comply with this Section must be steam-assisted, air-assisted, or nonassisted.

e) Compliance determination and equations.

1) Reference Method 22 (Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), must be used to determine the compliance of a flare with the visible emission provisions of this Subpart AA. The observation period is two hours and must be used according to Reference Method 22.

2) The net heating value of the gas being combusted in a flare must be calculated using the following equation:

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

Where:

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

~~K =~~ ~~1.74×10^{-7} (1/ppm)(g mol/scm)(MJ/kcal) where the standard temperature for (g mol/scm) is 20° C~~

~~$\Sigma(Xi)$ =~~ ~~the sum of the values of X for each component i, from i=1 to n~~

~~C_i =~~ ~~the concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 (Measurement of Gaseous Organic Compound Emissions~~

~~by Gas Chromatography) in appendix A to 40 CFR 60 (Test Methods), and for carbon monoxide, by ASTM D 1946-90 (Standard Practice for Analysis of Reformed Gas by Gas Chromatography), each incorporated by reference in 35 Ill. Adm. Code 720.111~~

~~H_i =~~ ~~the net heat of combustion of sample component i, kcal/gmol at 25° C and 760 mm Hg. The heats of combustion must be determined using ASTM D 2382-88 (Standard Test Method for Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High Precision Method)), incorporated by reference in 35 Ill. Adm. Code 720.111(a), if published values are not available or cannot be calculated.~~

H_T ≡ the net heating value of the sample in MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25°C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one1 mole is 20°C

K ≡ 1.74×-10^{-7} (1/ppm)(g mol/scm)(MJ/kcal) where the standard temperature for (g mol/scm) is 20°C

ΣX_i ≡ the sum of the values of X for each component i, from i=1 to n

C_i ≡ the concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 (Measurement of Gaseous Organic Compound Emissions by Gas Chromatography) in appendix A to 40 CFR 60 (Test Methods), and for carbon monoxide, by ASTM D 1946-90 (Standard Practice for Analysis of Reformed Gas by Gas Chromatography), each incorporated by reference in 35 Ill. Adm. Code 720.111(a)

H_i ≡ the net heat of combustion of sample component i, kcal/gmol at 25° C and 760 mm Hg. The heats of combustion must be determined using ASTM D 2382-88 (Standard Test Method for Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High Precision Method)), incorporated by reference in 35 Ill. Adm. Code 720.111(a), if published values

are not available or cannot be calculated.

3) The actual exit velocity of a flare must be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by Reference Methods 2 (Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)), 2A (Direct Measurement of Gas Volume through Pipes and Small Ducts), 2C (Determination of Gas Velocity and Volumetric Flow Rate in Small Stacks or Ducts (Standard Pitot Tube)), or 2D (Measurement of Gas Volume Flow Rates in Small Pipes and Ducts) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

4) The maximum allowed velocity in m/s, V_{max}, for a flare complying with subsection (d)(4)(C) of this Section must be determined by the following equation:

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

Where:

~~$\log_{10}$ = logarithm to the base 10~~

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

$\log_{10}$ ≡ logarithm to the base 10
H_T ≡ the net heating value as determined in subsection (e)(2) of this Section.

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

$V_{max} = 8.706 + 0.7084 H_T$

Where:

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

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

f) The owner or operator must monitor and inspect each control device required to comply with this Section to ensure proper operation and maintenance of the control device by implementing the following requirements:

1) Install, calibrate, maintain, and operate according to the manufacturer~~'~~'s specifications a flow indicator that provides a record of stream flow from each affected process vent to the control device at least once every hour. The flow indicator sensor must be installed in the vent stream at the nearest feasible point to the control device inlet but before the point at which the vent streams are combined.

2) Install, calibrate, maintain, and operate according to the manufacturer~~'~~'s specifications a device to continuously monitor control device operation, as follows:

A) For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device must have accuracy of ±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 of the following:

i) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the condenser; or

ii) A temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature with an accuracy of ±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 exhaust vent stream from the condenser exit (i.e., product side).

G) For a carbon adsorption system that regenerates the carbon bed directly in the control device such as a fixed-bed carbon adsorber, either of the following:

i) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the carbon bed, or

ii) A monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle.

3) Inspect the readings from each monitoring device required by subsections (f)(1) and (f)(2) of this Section at least once each operating day to check control device operation and, if necessary, immediately implement the corrective measures necessary to ensure the control device operates in compliance with the requirements of this Section.

g) An owner or operator using a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device must replace the existing carbon in the control device with fresh carbon at a regular, predetermined time interval that is no longer than the carbon service life established as a requirement of Section 724.935(b)(4)(C)(vi).

h) An owner or operator using a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device must replace the existing carbon in the control device with fresh carbon on a regular basis by using one of the following procedures:

1) Monitor the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system on a regular schedule, and replace the existing carbon with fresh carbon immediately when carbon breakthrough is indicated. The monitoring frequency must be daily or at an interval no greater than 20 percent of the time required to consume the total carbon working capacity established as a requirement of Section 724.935(b)(4)(C)(vii), whichever is longer.

2) Replace the existing carbon with fresh carbon at a regular, predetermined time interval that is less than the design carbon replacement interval established as a requirement of Section 724.935(b)(4)(C)(vii).

i) An alternative operational or process parameter may be monitored if the operator demonstrates that the parameter will ensure that the control device is operated in conformance with these standards and the control device's design specifications.

j) An owner or operator of an affected facility seeking to comply with the provisions of this Part by using a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system is required to develop documentation including sufficient information to describe the control device operation and identify the process parameter or parameters that indicate proper operation and maintenance of the control device.

k) A closed-vent system must meet either of the following design requirements:

1) A closed-vent system must be designed to operate with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, as determined by the methods specified at Section 724.934(b), and by visual inspections; or

2) A closed-vent system must be designed to operate at a pressure below atmospheric pressure. The system must be equipped with at least one pressure gauge or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system when the control device is operating.

l) The owner or operator must monitor and inspect each closed-vent system required to comply with this Section to ensure proper operation and maintenance of the closed-vent system by implementing the following requirements:

1) Each closed-vent system that is used to comply with subsection (k)(1) of this Section must be inspected and monitored in accordance with the following requirements:

A) An initial leak detection monitoring of the closed-vent system must

be conducted by the owner or operator on or before the date that the system becomes subject to this Section. The owner or operator must monitor the closed-vent system components and connections using the procedures specified in Section 724.934(b) to demonstrate that the closed-vent system operates with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background.

B) After initial leak detection monitoring required in subsection (l)(1)(A) of this Section, the owner or operator must inspect and monitor the closed-vent system as follows:

i) Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) must be visually inspected at least once per year to check for defects that could result in air pollutant emissions. The owner or operator must monitor a component or connection using the procedures specified in Section 724.934(b) to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted).

ii) Closed-vent system components or connections other than those specified in subsection (l)(1)(B)(i) of this Section must be monitored annually and at other times as requested by the Regional Administrator, except as provided for in subsection (o) of this Section, using the procedures specified in Section 724.934(b) to demonstrate that the components or connections operate with no detectable emissions.

C) In the event that a defect or leak is detected, the owner or operator must repair the defect or leak in accordance with the requirements of subsection (l)(3) of this Section.

D) The owner or operator must maintain a record of the inspection and monitoring in accordance with the requirements specified in Section 724.935.

2) Each closed-vent system that is used to comply with subsection (k)(2) of this Section must be inspected and monitored in accordance with the following requirements:

A) The closed-vent system must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork or piping or loose connections.

B) The owner or operator must perform an initial inspection of the closed-vent system on or before the date that the system becomes subject to this Section. Thereafter, the owner or operator must perform the inspections at least once every year.

C) In the event that a defect or leak is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (l)(3) of this Section.

D) The owner or operator must maintain a record of the inspection and monitoring in accordance with the requirements specified in Section 724.935.

3) The owner or operator must repair all detected defects as follows:

A) Detectable emissions, as indicated by visual inspection or by an instrument reading greater than 500 ppmv above background, must be controlled as soon as practicable, but not later than 15 calendar days after the emission is detected, except as provided for in subsection (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 must maintain a record of the defect repair in accordance with the requirements specified in Section 724.935.

m) A closed-vent system or control device used to comply with provisions of this Subpart AA must be operated at all times when emissions may be vented to it.

n) The owner or operator using a carbon adsorption system to control air pollutant emissions must document that all carbon removed that is a hazardous waste and that is removed from the control device is managed in one of the following manners, regardless of the volatile organic concentration of the carbon:

1) It is regenerated or reactivated in a thermal treatment unit that meets one of the following:

A) The owner or operator of the unit has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart X of this Part; or

B) The unit is equipped with and operating air emission controls in accordance with the applicable requirements of Subparts AA and CC of this Part or Subparts AA and CC of 35 Ill. Adm. Code 725; or

C) The unit is equipped with and operating air emission controls in accordance with a national emission standard for hazardous air pollutants under 40 CFR 61 (National Emission Standards for Hazardous Air Pollutants) or 63 (National Emission Standards for Hazardous Air Pollutants for Source Categories), each incorporated by reference in 35 Ill. Adm. Code 720.111(b).

2) It is incinerated in a hazardous waste incinerator for which the owner or

operator has done either of the following:

A) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart O of this Part; or

B) The owner or operator has certified compliance in accordance with ~~the~~ interim status requirements of Subpart O of 35 Ill. Adm. Code 725.

3) It is burned in a boiler or industrial furnace for which the owner or operator has done either of the following:

A) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart H of 35 Ill. Adm. Code 726; or

B) The owner or operator has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of Subpart H of 35 Ill. Adm. Code 726.

o) Any components of a closed-vent system that are designated, as described in Section 724.935(c)(9), as unsafe to monitor are exempt from the requirements of subsection (l)(1)(B)(ii) of this Section if both of the following conditions are fulfilled:

1) The owner or operator of the closed-vent system has determined that the components of the closed-vent system are unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with subsection (l)(1)(B)(ii) of this Section; and

2) The owner or operator of the closed-vent system adheres to a written plan that requires monitoring the closed-vent system components using the procedure specified in subsection (l)(1)(B)(ii) of this Section as frequently as practicable during safe-to-monitor times.

(Source: Amended at 40 Ill. Reg. ~~—~~ _____, effective _____ ~~_____~~)

Section 724.934 Test Methods and Procedures

a) Each owner or operator subject to the provisions of this Subpart AA must comply with the test methods and procedures requirements provided in this Section

b) When a closed-vent system is tested for compliance with no detectable emissions, as required in Section 724.933(l), the test must comply with the following requirements:

1) Monitoring must comply with Reference Method 21 (Determination of Volatile Organic Compound Leaks) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b).

2) The detection instrument must meet the performance criteria of Reference Method 21.

3) The instrument must be calibrated before use on each day of its use by the procedures specified in Reference Method 21.

4) Calibration gases must be as follows:

A) Zero air (less than 10 ppm of hydrocarbon in air); and

B) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.

5) The background level must be determined as set forth in Reference Method 21.

6) The instrument probe must be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

7) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

c) Performance tests to determine compliance with Section 724.932(a) and with the

total organic compound concentration limit of Section 724.933(c) must comply with the following:

1) Performance tests to determine total organic compound concentrations and mass flow rates entering and exiting control devices must be conducted and data reduced in accordance with the following reference methods and calculation procedures:

   A) Reference Method 2 (Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), for velocity and volumetric flow rate.

   B) Reference Method 18 (Measurement of Gaseous Organic Compound Emissions by Gas Chromatography) or Reference Method 25A (Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), for organic content. If Reference Method 25A is used, the organic HAP used as the calibration gas must be the single organic HAP representing the largest percent by volume of the emissions. The use of Reference Method 25A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

   C) Each performance test must consist of three separate runs, each run conducted for at least one hour under the conditions that exist when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. For the purpose of determining total organic compound concentrations and mass flow rates, the average of results of all runs applies. The average must be computed on a time-weighed basis.

   D) Total organic mass flow rates must be determined by the following equation:

i) For a source using Reference Method 18:

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

Where:

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

~~Q_{2sd} =~~ ~~The volumetric flow rate of gases entering or exiting control device, dscm/h, as determined by Reference Method 2~~

~~n =~~ ~~The number of organic compounds in the vent gas~~

~~C_i =~~ ~~The organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Reference Method 18~~

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

~~0.0416 = The conversion factor for molar volume, kg-mol/m^3, at 293 K and 760 mm Hg~~

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

E_h ≡ The total organic mass flow rate, kg/h
Q_{2sd} ≡ The volumetric flow rate of gases entering or

		exiting control device, dscm/h, as determined by Reference Method 2
N	=	The number of organic compounds in the vent gas
C_i	=	The organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Reference Method 18
MW_i	=	The molecular weight of organic compound I in the vent gas, kg/kg-mol
0.041 6	=	The conversion factor for molar volume, kg-mol/m^3, at 293 K and 760 mmHg
10^{-6}	=	The conversion factor from ppm,

ii) For a source using Reference Method 25A:

$$E_h = Q \times C \times MW \times 01.0416 \times 10^{-6}$$

Where:

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

~~Q =~~ ~~The volumetric flow rate of gases entering or exiting control device, dscm/h, as determined by Reference Method 2~~

~~C =~~ ~~The organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Reference Method 25A~~

~~MW =~~ ~~The molecular weight of propane, 44 kg/kg-mol~~

~~0.0416 = The conversion factor for molar volume, kg-mol/m^3, at 293 K and 760 mm Hg~~

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

E_h	=	The total organic mass flow rate, kg/h
Q	=	The volumetric flow rate of gases entering or exiting control device, dscm/h, as determined by Reference Method 2
C	=	The organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Reference Method 25A
MW	=	The molecular weight of propane, 44 kg/kg-mol
0.0416	=	The conversion factor for molar volume, kg-mol/m^3, at 293 K and 760 mmHg
10^{-6}	=	The conversion factor from ppm.

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

$$A = F \text{ ~~*~~ x } H$$

Where:

~~A = total organic emission rate, kg/y~~

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

~~H = the total annual hours of operation for the affected unit.~~

A ≡ total organic emission rate, kg/y
F ≡ the total organic mass flow rate, kg/h, as calculated in subsection (c)(1)(D) of this Section
H ≡ the total annual hours of operation for the affected unit.

F) Total organic emissions from all affected process vents at the facility must be determined by summing the hourly total organic mass emissions rates (F as determined in subsection (c)(1)(D) of this Section) and by summing the annual total organic mass emission rates (A as determined in subsection (c)(1)(E) of this Section) for all affected process vents at the facility.

2) The owner or operator must record such process information as is necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction do not constitute representative conditions for the purpose of a performance test.

3) The owner or operator of an affected facility must provide, or cause to be provided, performance testing facilities as follows:

A) Sampling ports adequate for the test methods specified in subsection (c)(1) of this Section.

B) Safe sampling platforms.

C) Safe access to sampling platforms.

D) Utilities for sampling and testing equipment.

4) For the purpose of making compliance determinations, the time-weighted average of the results of the three runs must apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the owner or operator~~'~~'s control, compliance may, upon the Agency~~'~~'s approval, be determined using the average of the results of the two other runs.

d) To show that a process vent associated with a hazardous waste distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation is not subject to the requirements of this Subpart AA, the owner or operator must make an initial determination that the time-weighted, annual average total organic concentration of the waste managed by the waste management unit is less than 10 ppmw using one of the following two methods:

1) Direct measurement of the organic concentration of the waste using the following procedures:

A) The owner or operator must take a minimum of four grab samples of waste for each wastestream managed in the affected unit under process conditions expected to cause the maximum waste organic concentration.

B) For waste generated onsite, the grab samples must be collected at a point before the waste is exposed to the atmosphere, such as in an enclosed pipe or other closed system that is used to transfer the waste after generation to the first affected distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation. For waste generated offsite, the grab samples must be collected at the inlet to the first waste management unit that receives the waste provided the waste has been transferred to the facility in a closed system such as a tank truck and the waste is not diluted or mixed with other waste.

C) Each sample must be analyzed and the total organic concentration of the sample must be computed using Method 9060A (Total Organic Carbon) of ""Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,"" USEPA publication number EPA-530/SW-846, incorporated by reference under 35 Ill. Adm. Code 720.111(a), or analyzed for its individual constituents.

D) The arithmetic mean of the results of the analyses of the four samples apply for each wastestream managed in the unit in determining the time-weighted, annual average total organic concentration of the waste. The time-weighted average is to be

calculated using the annual quantity of each waste stream processed and the mean organic concentration of each wastestream managed in the unit.

2) Using knowledge of the waste to determine that its total organic concentration is less than 10 ppmw. Documentation of the waste determination is required. Examples of documentation that must be used to support a determination under this subsection (d)(2) include the following:

A) Production process information documenting that no organic compounds are used;

B) Information that the waste is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to generate a wastestream having a total organic content less than 10 ppmw; or

C) Prior speciation analysis results on the same wastestream where it is also documented that no process changes have occurred since that analysis that could affect the waste total organic concentration.

e) The determination that a distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation that manages hazardous wastes that have time-weighted, annual average total organic concentrations less than 10 ppmw must be made as follows:

1) By the effective date that the facility becomes subject to the provisions of this Subpart AA or by the date when the waste is first managed in a waste management unit, whichever is later; and either of the following:

2) For continuously generated waste, annually; or

3) Whenever there is a change in the waste being managed or a change in the process that generates or treats the waste.

f) When an owner or operator and the Agency do not agree on whether a distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping

operation manages a hazardous waste with organic concentrations of at least 10 ppmw based on knowledge of the waste, direct measurement may be used to resolve the dispute, as specified in subsection (d)(1) of this Section.

(Source: Amended at 40 Ill. Reg. ~~—~~_____, effective _____~~———~~)

Section 724.935 Recordkeeping Requirements

a) Compliance Required.

1) Each owner or operator subject to the provisions of this Subpart AA must comply with the recordkeeping requirements of this Section.

2) An owner or operator of more than one hazardous waste management unit subject to the provisions of this Subpart AA may comply with the recordkeeping requirements for these hazardous waste management units in one recordkeeping system if the system identifies each record by each hazardous waste management unit.

b) Owners and operators must record the following information in the facility operating record:

1) For facilities that comply with the provisions of Section 724.933(a)(2), an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The schedule must also include a rationale of why the installation cannot be completed at an earlier date. The implementation schedule must be in the facility operating record by the effective date that the facility becomes subject to the provisions of this Subpart AA.

2) Up-to-date documentation of compliance with the process vent standards in Section 724.932, including the following:

A) Information and data identifying all affected process vents, annual throughput, and operating hours of each affected unit, estimated emission rates for each affected vent and for the overall facility (i.e., the total emissions for all affected vents at the facility), and the approximate location within the facility of each affected unit

(e.g., identify the hazardous waste management units on a facility plot plan).

B) Information and data supporting determination of vent emissions and emission reductions achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, determinations of vent emissions and emission reductions must be made using operating parameter values (e.g., temperatures, flow rates, or vent stream organic compounds and concentrations) that represent the conditions that result in maximum organic emissions, such as when the waste management unit is operating at the highest load or capacity level reasonably expected to occur. If the owner or operator takes any action (e.g., managing a waste of different composition or increasing operating hours of affected waste management units) that would result in an increase in total organic emissions from affected process vents at the facility, then a new determination is required.

3) Where an owner or operator chooses to use test data to determine the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan. The test plan must include the following:

A) A description of how it is determined that the planned test is going to be conducted when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. This must include the estimated or design flow rate and organic content of each vent stream and define the acceptable operating ranges of key process and control device parameters during the test program.

B) A detailed engineering description of the closed-vent system and control device including the following:

i) Manufacturer's name and model number of control device;

ii) Type of control device;

iii) Dimensions of the control device;

iv) Capacity; and

v) Construction materials.

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

4) Documentation of compliance with Section 724.933 must include the following information:

A) A list of all information references and sources used in preparing the documentation.

B) Records, including the dates of each compliance test required by Section 724.933(k).

C) If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of ~~"~~"APTI Course 415: Control of Gaseous Emissions,~~"~~" USEPA publication number EPA~~-~~ 450/2-81-005, incorporated by reference in 35 Ill. Adm. Code 720.111(a)~~,~~ or other engineering texts, approved by the Agency, that present basic control device design information. Documentation provided by the control device manufacturer or vendor that describes the control device design in accordance with subsections (b)(4)(C)(i) through (b)(4)(C)(vii) of this Section may be used to comply with this requirement. The design analysis must address the vent stream characteristics and control device operation parameters as specified below.

i) For a thermal vapor incinerator, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must

also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.

ii) For a catalytic vapor incinerator, the design analysis must consider the vent stream composition, constituent concentrations,, and flow rate. The design analysis must also establish the design minimum and average temperatures across the catalyst bed inlet and outlet.

iii) For a boiler or process heater, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also establish the design minimum and average flame zone temperatures, combustion zone residence time and description of method and location where the vent stream is introduced into the combustion zone.

iv) For a flare, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also consider the requirements specified in Section 724.933(d).

v) For a condenser, the design analysis must consider the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis must also establish the design outlet organic compound concentration level, design average temperature of the condenser exhaust vent stream and design average temperatures of the coolant fluid at the condenser inlet and outlet.

vi) For a carbon adsorption system, such as a fixed-bed adsorber that regenerates the carbon bed directly onsite in the control device, the design analysis must consider the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis must also establish the design exhaust vent stream

organic compound concentration level, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total steam flow over the period of each complete carbon bed regeneration cycle, duration of the carbon bed steaming and cooling/drying cycles, design carbon bed temperature after regeneration, design carbon bed regeneration time and design service life of carbon.

vii) For a carbon adsorption system, such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device, the design analysis must consider the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis must also establish the design outlet organic concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.

D) A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is or would be operating at the highest load or capacity level reasonably expected to occur.

E) A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 percent or greater unless the total organic concentration limit of Section 724.932(a) is achieved at an efficiency less than 95 weight percent or the total organic emission limits of Section 724.932(a) for affected process vents at the facility are attained by a control device involving vapor recovery at an efficiency less than 95 weight percent. A statement provided by the control device manufacturer or vendor certifying that the control equipment meets the design specifications may be used to comply with this requirement.

F) If performance tests are used to demonstrate compliance, all test results.

c) Design documentation and monitoring operating and inspection information for each closed-vent system and control device required to comply with the provisions of this Part must be recorded and kept up-to-date in the facility operating record. The information must include the following:

1) Description and date of each modification that is made to the closed-vent system or control device design.

2) Identification of operating parameter, description of monitoring device, and diagram of monitoring sensor location or locations used to comply with Section 724.933(f)(1) and (f)(2).

3) Monitoring, operating and inspection information required by Section 724.933(f) through (k).

4) Date, time, and duration of each period that occurs while the control device is operating when any monitored parameter exceeds the value established in the control device design analysis as specified below:

A) For a thermal vapor incinerator designed to operate with a minimum residence time of 0.50 second at a minimum temperature of 760° C, any period when the combustion temperature is below 760° C.

B) For a thermal vapor incinerator designed to operate with an organic emission reduction efficiency of 95 weight percent or greater, any period when the combustion zone temperature is more than 28° C below the design average combustion zone temperature established as a requirement of subsection (b)(4)(C)(i) of this Section.

C) For a catalytic vapor incinerator, any period when:

i) Temperature of the vent stream at the catalyst bed inlet is more than 28° C below the average temperature of the inlet

vent stream established as a requirement of subsection (b)(4)(C)(ii) of this Section; or

ii) Temperature difference across the catalyst bed is less than 80% of the design average temperature difference established as a requirement of subsection (b)(4)(C)(ii) of this Section.

D) For a boiler or process heater, any period when either of the following occurs:

i) Flame zone temperature is more than 28° C below the design average flame zone temperature established as a requirement of subsection (b)(4)(C)(iii) of this Section; or

ii) Position changes where the vent stream is introduced to the combustion zone from the location established as a requirement of subsection (b)(4)(C)(iii) of this Section.

E) For a flare, period when the pilot flame is not ignited.

F) For a condenser that complies with Section 724.933(f)(2)(F)(i), any period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the condenser are more than 20 percent greater than the design outlet organic compound concentration level established as a requirement of subsection (b)(4)(C)(v) of this Section.

G) For a condenser that complies with Section 724.933(f)(2)(F)(ii), any period when the following occurs:

i) Temperature of the exhaust vent stream from the condenser is more than 6° C above the design average exhaust vent stream temperature established as a requirement of subsection (b)(4)(C)(v) of this Section.

ii) Temperature of the coolant fluid exiting the condenser is more than 6° C above the design average coolant fluid

temperature at the condenser outlet established as a requirement of subsection (b)(4)(C)(v) of this Section.

H) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device and complies with Section 724.933(f)(2)(G)(i), any period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the carbon bed are more than 20 percent greater than the design exhaust vent stream organic compound concentration level established as a requirement of subsection (b)(4)(C)(vi) of this Section.

I) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device and complies with Section 724.933(f)(2)(G)(ii), any period when the vent stream continues to flow through the control device beyond the predetermined carbon bed regeneration time established as a requirement of subsection (b)(4)(C)(vi) of this Section.

5) Explanation for each period recorded under subsection (c)(4) of this Section of the cause for control device operating parameter exceeding the design value and the measures implemented to correct the control device operation.

6) For a carbon adsorption system operated subject to requirements specified in Section 724.933(g) or (h)(2), any date when existing carbon in the control device is replaced with fresh carbon.

7) For a carbon adsorption system operated subject to requirements specified in Section 724.933(h)(1), a log that records the following:

A) Date and time when control device is monitored for carbon breakthrough and the monitoring device reading; and

B) Date when existing carbon in the control device is replaced with fresh carbon.

8) Date of each control device startup and shutdown.

9) An owner or operator designating any components of a closed-vent system as unsafe to monitor pursuant to Section 724.933(o) must record in a log that is kept in the facility operating record the identification of closed-vent system components that are designated as unsafe to monitor in accordance with the requirements of Section 724.933(o), an explanation for each closed-vent system component stating why the closed-vent system component is unsafe to monitor, and the plan for monitoring each closed-vent system component.

10) When each leak is detected, as specified in Section 724.933(l), the following information must be recorded:

A) The instrument identification number; the closed-vent system component identification number; and the operator name, initials, or identification number.

B) The date the leak was detected and the date of first attempt to repair the leak.

C) The date of successful repair of the leak.

D) Maximum instrument reading measured by Reference Method 21 (Determination of Volatile Organic Compound Leaks) of appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), after it is successfully repaired or determined to be nonrepairable.

E) ~~"~~"Repair delayed"~~"~~ and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

i) The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.

ii) If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion.

d) Records of the monitoring, operating, and inspection information required by subsections (c)(3) through (c)(10) of this Section must be kept at least three years following the date of each occurrence, measurement, corrective action, or record.

e) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, the Agency must specify the appropriate recordkeeping requirements.

f) Up-to-date information and data used to determine whether or not a process vent is subject to the requirements in Section 724.932, including supporting documentation as required by Section 724.934(d)(2), when application of the knowledge of the nature of the hazardous wastestream or the process by which it was produced is used, must be recorded in a log that is kept in the facility operating record.

(Source: Amended at 40 Ill. Reg. ~~—~~_____, effective _____~~_____~~)

Section 724.936 Reporting Requirements

a) A semiannual report must be submitted by owners and operators subject to the requirements of this Subpart AA to the Agency by dates specified in the RCRA permit. The report must include the following information:

1) The USEPA identification number (35 Ill. Adm. Code 722.112), name, and address of the facility.

2) For each month during the semiannual reporting period the following:

A) Dates when the control device did the following:

i) Exceeded or operated outside of the design specifications, as defined in Section 724.935(c)(4); and

ii) Such exceedances were not corrected within 24 hours, or that a flare operated with visible emissions, as defined by Reference Method 22 monitoring;

B) The duration and cause of each exceedance or visible emissions; and

C) Any corrective measures taken.

b) If during the semiannual reporting period, the control device does not exceed or operate outside of the design specifications, as defined in Section 724.935(c)(4), for more than 24 hours or a flare does not operate with visible emissions, as defined in Section 724.933(d), a report to the Agency is not required.

(Source: Amended at 40 Ill. Reg. ~~—~~_____, effective _____~~———~~)

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

Section 724.981 Definitions

As used in this Subpart CC, all terms will have the meaning given to them in 35 Ill. Adm. Code 725.981; section 1004 of the federal Resource Conservation and Recovery Act (42 USC 6903), incorporated by reference in 35 Ill. Adm. Code 720.111; and 35 Ill. Adm. Code 720 through ~~728.~~ ~~726.~~726728.

(Source: Amended at 40 Ill. Reg. ~~—~~_____, effective _____~~———~~)

Section 724.982 Standards: General

a) This Section applies to the management of hazardous waste in tanks, surface impoundments, and containers subject to this Subpart CC.

b) The owner or operator must control air pollutant emissions from each waste management unit in accordance with the standards specified in Sections 724.984 through 724.987, as applicable to the waste management unit, except as provided for in subsection (c) of this Section.

c) A tank, surface impoundment, or container is exempt from standards specified in Sections 724.984 through 724.987, as applicable, provided that all hazardous waste placed in the waste management unit is one of the following:

1) A tank, surface impoundment, or container for which all hazardous waste entering the unit has an average VO concentration at the point of waste origination of less than 500 parts per million by weight (ppmw). The average VO concentration must be determined by the procedures specified in Section 724.983(a). The owner or operator must review and update, as necessary, this determination at least once every 12 months following the date of the initial determination for the hazardous waste streams entering the unit.

2) A tank, surface impoundment, or container for which the organic content of all the hazardous waste entering the waste management unit has been reduced by an organic destruction or removal process that achieves any one of the following conditions:

A) The process removes or destroys the organics contained in the hazardous waste to a level such that the average VO concentration of the hazardous waste at the point of waste treatment is less than the exit concentration limit (C_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 724.983(b).

B) The process removes or destroys the organics contained in the hazardous waste to a level such that the organic reduction efficiency (R) for the process is equal to or greater than 95 percent, and the average VO concentration of the hazardous waste at the point of waste treatment is less than 100 ppmw. The organic reduction efficiency for the process and the average VO concentration of the hazardous waste at the point of waste treatment must be determined using the procedures specified in Section 724.983(b).

C) The process removes or destroys the organics contained in the

hazardous waste to such a level that the actual organic mass removal rate (MR) for the process is equal to or greater than the required organic mass removal rate (RMR) established for the process. The required organic mass removal rate and the actual organic mass removal rate for the process must be determined using the procedures specified in Section 724.983(b).

D) The process is a biological process that destroys or degrades the organics contained in the hazardous waste so that either of the following conditions are met:

i) The organic reduction efficiency (R) for the process is equal to or greater than 95 percent, and the organic biodegradation efficiency (R_{bio}) for the process is equal to or greater than 95 percent. The organic reduction efficiency and the organic biodegradation efficiency for the process must be determined using the procedures specified in Section 724.983(b).

ii) The total actual organic mass biodegradation rate (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 724.983(b).

E) The process removes or destroys the organics contained in the hazardous waste and meets all of the following conditions:

i) From the point of waste origination through the point where the hazardous waste enters the treatment process, the hazardous waste is continuously managed in waste management units that use air emission controls in accordance with the standards specified in Sections 724.984 through 724.987, as applicable to the waste management unit.

ii) From the point of waste origination through the point where the hazardous waste enters the treatment process, any transfer of the hazardous waste is accomplished through continuous hard-piping or other closed system transfer that does not allow exposure of the waste to the atmosphere.

BOARD NOTE: The USEPA considers a drain system that meets the requirements of federal subpart RR of 40 CFR 63 (National Emission Standards for Individual Drain Systems) to be a closed system.

iii) The average VO concentration of the hazardous waste at the point of waste treatment is less than the lowest average VO concentration at the point of waste origination, determined for each of the individual hazardous waste streams entering the process or 500 ppmw, whichever value is lower. The average VO concentration of each individual hazardous waste stream at the point of waste origination must be determined using the procedures specified in Section 724.983(a). The average VO concentration of the hazardous waste at the point of waste treatment must be determined using the procedures specified in Section 724.983(b).

F) A process that removes or destroys the organics contained in the hazardous waste to a level such that the organic reduction efficiency (R) for the process is equal to or greater than 95 percent and the owner or operator certifies that the average VO concentration at the point of waste origination for each of the individual waste streams entering the process is less than 10,000 ppmw. The organic reduction efficiency for the process and the average VO concentration of the hazardous waste at the point of waste origination must be determined using the procedures specified in Section 724.983(b) and Section 724.983(a), respectively.

G) A hazardous waste incinerator for which either of the following conditions is true:

i) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart H of 35 Ill. Adm. Code 726; or

ii) The owner or operator has designed and operates the incinerator in accordance with the interim status requirements of Subpart O of 35 Ill. Adm. Code 725.

H) A boiler or industrial furnace for which either of the following conditions is true:

i) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart H of 35 Ill. Adm. Code 726; or

ii) The owner or operator has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of Subpart O of 35 Ill. Adm. Code 725.

I) For the purpose of determining the performance of an organic destruction or removal process in accordance with the conditions in each of subsections (c)(2)(A) through (c)(2)(F) of this Section, the owner or operator must account for VO concentrations determined to be below the limit of detection of the analytical method by using the following VO concentration:

i) If Reference Method 25D (Determination of the Volatile Organic Concentration of Waste Samples) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), is used for the analysis, one-half the blank value determined in Section 4.4 of the method or a value of 25 ppmw, whichever is less.

ii) If any other analytical method is used, one-half the sum of the limits of detection established for each organic constituent in the waste that has a Henry's law constant value at least 0.1 mole-fraction-in-the-gas-phase/mole-

fraction-in-the-liquid-phase (0.1 Y/X) (which can also be expressed as 1.8 ~~*~~x 10^{-6} atmospheres/gram-mole/m^3) at 25° C.

3) A tank or surface impoundment used for biological treatment of hazardous waste in accordance with the requirements of subsection (c)(2)(D) of this Section.

4) A tank, surface impoundment, or container for which all hazardous waste placed in the unit fulfills either of the following conditions:

A) It meets the numerical concentration limits for organic hazardous constituents, applicable to the hazardous waste, as specified in Table T to 35 Ill. Adm. Code 728; or

B) The organic hazardous constituents in the waste have been treated by the treatment technology established by USEPA for the waste, as set forth in 35 Ill. Adm. Code 728.142(a), or have been removed or destroyed by an equivalent method of treatment approved by the Agency pursuant to 35 Ill. Adm. Code 728.142(b).

5) A tank used for bulk feed of hazardous waste to a waste incinerator and all of the following conditions are met:

A) The tank is located inside an enclosure vented to a control device that is designed and operated in accordance with all applicable requirements specified under federal subpart FF of 40 CFR 61 (National Emission Standard for Benzene Waste Operations), incorporated by reference in 35 Ill. Adm. Code 720.111(b), for a facility at which the total annual benzene quantity from the facility waste is equal to or greater than 10 megagrams (11 tons) per year;

B) The enclosure and control device serving the tank were installed and began operation prior to November 25, 1996; and

C) The enclosure is designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T— Criteria for and Verification of a Permanent or Temporary

Total Enclosure"" under appendix B to 40 CFR 52.741 (VOM Measurement Techniques for Capture Efficiency), incorporated by reference in 35 Ill. Adm. Code 720.111(b). The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical or electrical equipment; or to direct air flow into the enclosure. The owner or operator must perform the verification procedure for the enclosure as specified in Section 5.0 to ""Procedure T— – Criteria for and Verification of a Permanent or Temporary Total Enclosure"" annually.

d) The Agency may at any time perform or request that the owner or operator perform a waste determination for a hazardous waste managed in a tank, surface impoundment, or container that is exempted from using air emission controls under the provisions of this Section, as follows:

1) The waste determination for average VO concentration of a hazardous waste at the point of waste origination must be performed using direct measurement in accordance with the applicable requirements of Section 724.983(a). The waste determination for a hazardous waste at the point of waste treatment must be performed in accordance with the applicable requirements of Section 724.983(b).

2) In performing a waste determination pursuant to subsection (d)(1) of this Section, the sample preparation and analysis must be conducted as follows:

A) In accordance with the method used by the owner or operator to perform the waste analysis, except in the case specified in subsection (d)(2)(B) of this Section.

B) If the Agency determines that the method used by the owner or operator was not appropriate for the hazardous waste managed in the tank, surface impoundment, or container, then the Agency may choose an appropriate method.

3) Where the owner or operator is requested to perform the waste determination, the Agency may elect to have an authorized representative

observe the collection of the hazardous waste samples used for the analysis.

4) Where the results of the waste determination performed or requested by the Agency do not agree with the results of a waste determination performed by the owner or operator using knowledge of the waste, then the results of the waste determination performed in accordance with the requirements of subsection (d)(1) of this Section must be used to establish compliance with the requirements of this Subpart CC.

5) Where the owner or operator has used an averaging period greater than one hour for determining the average VO concentration of a hazardous waste at the point of waste origination, the Agency may elect to establish compliance with this Subpart CC by performing or requesting that the owner or operator perform a waste determination using direct measurement based on waste samples collected within a one-hour period, as follows:

A) The average VO concentration of the hazardous waste at the point of waste origination must be determined by direct measurement in accordance with the requirements of Section 724.983(a).

B) Results of the waste determination performed or requested by the Agency showing that the average VO concentration of the hazardous waste at the point of waste origination is equal to or greater than 500 ppmw must constitute noncompliance with this Subpart CC, except in a case as provided for in subsection (d)(5)(C) of this Section.

C) Where the average VO concentration of the hazardous waste at the point of waste origination previously has been determined by the owner or operator using an averaging period greater than one hour to be less than 500 ppmw but because of normal operating process variations the VO concentration of the hazardous waste determined by direct measurement for any given one-hour period may be equal to or greater than 500 ppmw, information that was used by the owner or operator to determine the average VO concentration of the hazardous waste (e.g., test results, measurements, calculations,

and other documentation) and recorded in the facility records in accordance with the requirements of Section 724.983(a) and Section 724.989 must be considered by the Agency together with the results of the waste determination performed or requested by the Agency in establishing compliance with this Subpart CC.

(Source: Amended at 40 Ill. Reg. ~~—~~_____, effective _____~~———~~)

Section 724.986 Standards: Containers

a) The provisions of this Section apply to the control of air pollutant emissions from containers for which Section 724.982(b) references the use of this Section for such air emission control.

b) General requirements.

1) The owner or operator must control air pollutant emissions from each container subject to this Section in accordance with the following requirements, as applicable to the container, except when the special provisions for waste stabilization processes specified in subsection (b)(2) of this Section apply to the container.

A) For a container having a design capacity greater than 0.1 m^3 (26 gal) and less than or equal to 0.46 m^3 (120 gal), the owner or operator must control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c) of this Section.

B) For a container having a design capacity greater than 0.46 m^3 (120 gal) that is not in light material service, the owner or operator must control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c) of this Section.

C) For a container having a design capacity greater than 0.46 m^3 (120 gal) that is in light material service, the owner or operator must control air pollutant emissions from the container in accordance with the Container Level 2 standards specified in subsection (d) of

this Section.

2) When a container having a design capacity greater than 0.1 m^3 (26 gal) is used for treatment of a hazardous waste by a waste stabilization process, the owner or operator must control air pollutant emissions from the container in accordance with the Container Level 3 standards specified in subsection (e) of this Section at those times during the waste stabilization process when the hazardous waste in the container is exposed to the atmosphere.

c) Container Level 1 standards.

1) A container using Container Level 1 controls is one of the following:

A) A container that meets the applicable USDOT regulations on packaging hazardous materials for transportation, as specified in subsection (f) of this Section.

B) A container equipped with a cover and closure devices that form a continuous barrier over the container openings so that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container (e.g., a lid on a drum or a suitably secured tarp on a roll-off box) or may be an integral part of the container structural design (e.g., a ""portable tank"" or bulk cargo container equipped with a screw-type cap).

C) An open-top container in which an organic-vapor suppressing barrier is placed on or over the hazardous waste in the container so that no hazardous waste is exposed to the atmosphere. One example of such a barrier is application of a suitable organic-vapor suppressing foam.

2) A container used to meet the requirements of subsection (c)(1)(B) or (c)(1)(C) of this Section must be equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the hazardous waste to the atmosphere

and to maintain the equipment integrity for as long as it is in service. Factors to be considered in selecting the materials of construction and designing the cover and closure devices must include the following: the organic vapor permeability; the effects of contact with the hazardous waste or its vapor managed in the container; the effects of outdoor exposure of the closure device or cover material to wind, moisture, and sunlight; and the operating practices for which the container is intended to be used.

3) Whenever a hazardous waste is in a container using Container Level 1 controls, the owner or operator must install all covers and closure devices for the container, as applicable to the container, and secure and maintain each closure device in the closed position, except as follows:

A) Opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container, as follows:

i) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator must promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.

ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator must promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.

B) Opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container, as follows:

i) For the purpose of meeting the requirements of this Section, an empty container, as defined in 35 Ill. Adm. Code 721.107(b), may be open to the atmosphere at any time (i.e., covers and closure devices are not required to be secured in the closed position on an empty container).

ii) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container, as defined in 35 Ill. Adm. Code 721.107(b), the owner or operator must promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

C) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator must promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.

D) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device that vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device must be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens must be established so that the device remains in the closed position whenever the internal pressure of the

container is within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

E) Opening of a safety device, as defined in 35 Ill. Adm. Code 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.

4) The owner or operator of containers using Container Level 1 controls must inspect the containers and their covers and closure devices, as follows:

A) In the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility (i.e., it does not meet the conditions for an empty container, as specified in 35 Ill. Adm. Code 721.107(b)), the owner or operator must visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection must be conducted on or before the date on which the container is accepted at the facility (i.e., the date when the container becomes subject to the Subpart CC container standards). For the purposes of this requirement, the date of acceptance is the date of signature that the facility owner or operator enters on Item 20 of the Uniform Hazardous Waste Manifest, as set forth in the appendix to 40 CFR 262 (Uniform Hazardous Waste Manifest and Instructions (EPA Forms 8700-22 and 8700-22A and Their Instructions)), incorporated by reference in 35 Ill. Adm. Code 720.111(b)

(USEPA Forms 8700-22 and 8700-22A), as required under Section 724.171. If a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (c)(4)(C) of this Section.

B) In the case when a container used for managing hazardous waste remains at the facility for a period of one year or more, the owner or operator must visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (c)(4)(C) of this Section.

C) When a defect is detected for the container, cover, or closure devices, the owner or operator must make first efforts at repair of the defect no later than 24 hours after detection and repair must be completed as soon as possible but no later than five calendar days after detection. If repair of a defect cannot be completed within five calendar days, then the hazardous waste must be removed from the container and the container must not be used to manage hazardous waste until the defect is repaired.

5) The owner or operator must maintain at the facility a copy of the procedure used to determine that containers with capacity of 0.46 m^3 (120 gal) or greater that do not meet applicable USDOT regulations, as specified in subsection (f) of this Section, are not managing hazardous waste in light material service.

d) Container Level 2 standards.

1) A container using Container Level 2 controls is one of the following:

A) A container that meets the applicable USDOT regulations on packaging hazardous materials for transportation, as specified in subsection (f) of this Section.

B) A container that operates with no detectable organic emissions, as defined in 35 Ill. Adm. Code 725.981, and determined in accordance with the procedure specified in subsection (g) of this Section.

C) A container that has been demonstrated within the preceding 12 months to be vapor-tight by using Reference Method 27 (Determination of Vapor Tightness of Gasoline Delivery Tank Using Pressure-Vacuum Test) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), in accordance with the procedure specified in subsection (h) of this Section.

2) Transfer of hazardous waste in or out of a container using Container Level 2 controls must be conducted in such a manner as to minimize exposure of the hazardous waste to the atmosphere, to the extent practical, considering the physical properties of the hazardous waste and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that the USEPA considers to meet the requirements of this subsection (d)(2) include using any one of the following: a submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous waste is filled and subsequently purging the transfer line before removing it from the container opening.

3) Whenever a hazardous waste is in a container using Container Level 2 controls, the owner or operator must install all covers and closure devices for the container, and secure and maintain each closure device in the closed position, except as follows:

A) Opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container, as follows:

i) In the case when the container is filled to the intended final

level in one continuous operation, the owner or operator must promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.

ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator must promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon whichever of the following conditions occurs first: the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container.

B) Opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container, as follows:

i) For the purpose of meeting the requirements of this Section, an empty container, as defined in 35 Ill. Adm. Code 721.107(b), may be open to the atmosphere at any time (i.e., covers and closure devices are not required to be secured in the closed position on an empty container).

ii) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container, as defined in 35 Ill. Adm. Code 721.107(b), the owner or operator must promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

C) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator must promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.

D) Opening of a spring-loaded, pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device that vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device must be designed to operate with no detectable organic emission when the device is secured in the closed position. The settings at which the device opens must be established so that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

E) Opening of a safety device, as defined in 35 Ill. Adm. Code 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.

4) The owner or operator of containers using Container Level 2 controls must inspect the containers and their covers and closure devices, as follows:

A) In the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility (i.e., it does not meet the conditions for an empty container as specified in 35 Ill. Adm. Code 721.107(b)), the owner or operator must visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection must be conducted on or before the date on which the container is accepted at the facility (i.e., the date when the container becomes subject to the Subpart CC container standards). For the purposes of this requirement, the date of acceptance is the date of signature that the facility owner or operator enters on Item 20 of the Uniform Hazardous Waste Manifest, in the appendix to 40 CFR 262 (Uniform Hazardous Waste Manifest and Instructions (USEPA Forms 8700-22 and 8700-22A and Their Instructions)), as required under Section 724.171. If a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (d)(4)(C) of this Section.

B) In the case when a container used for managing hazardous waste remains at the facility for a period of one year or more, the owner or operator must visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (d)(4)(C) of this Section.

C) When a defect is detected for the container, cover, or closure devices, the owner or operator must make first efforts at repair of the defect no later than 24 hours after detection, and repair must be completed as soon as possible but no later than five calendar days after detection. If repair of a defect cannot be completed within

five calendar days, then the hazardous waste must be removed from the container and the container must not be used to manage hazardous waste until the defect is repaired.

e) Container Level 3 standards.

1) A container using Container Level 3 controls is one of the following:

A) A container that is vented directly through a closed-vent system to a control device in accordance with the requirements of subsection (e)(2)(B) of this Section.

B) A container that is vented inside an enclosure that is exhausted through a closed-vent system to a control device in accordance with the requirements of subsections (e)(2)(A) and (e)(2)(B) of this Section.

2) The owner or operator must meet the following requirements, as applicable to the type of air emission control equipment selected by the owner or operator:

A) The container enclosure must be designed and operated in accordance with the criteria for a permanent total enclosure, as specified in "Procedure T – Criteria for and Verification of a Permanent or Temporary Total Enclosure" under appendix B to 40 CFR 52.741 (VOM Measurement Techniques for Capture Efficiency), incorporated by reference in 35 Ill. Adm. Code 720.111(b). The enclosure may have permanent or temporary openings to allow worker access; passage of containers through the enclosure by conveyor or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator must perform the verification procedure for the enclosure, as specified in Section 5.0 to "Procedure T – Criteria for and Verification of a Permanent or Temporary Total Enclosure" initially when the enclosure is first installed and, thereafter, annually.

B) The closed-vent system and control device must be designed and

operated in accordance with the requirements of Section 724.987.

3) Safety devices, as defined in 35 Ill. Adm. Code 725.981, may be installed and operated as necessary on any container, enclosure, closed-vent system, or control device used to comply with the requirements of subsection (e)(1) of this Section.

4) Owners and operators using Container Level 3 controls in accordance with the provisions of this Subpart CC must inspect and monitor the closed-vent systems and control devices, as specified in Section 724.987.

5) Owners and operators that use Container Level 3 controls in accordance with the provisions of this Subpart CC must prepare and maintain the records specified in Section 724.989(d).

6) The transfer of hazardous waste into or out of a container using Container Level 3 controls must be conducted in such a manner as to minimize exposure of the hazardous waste to the atmosphere, to the extent practical considering the physical properties of the hazardous waste and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that USEPA considers to meet the requirements of this subsection (e)(6) include using any one of the following: the use of a submerged-fill pipe or other submerged-fill method to load liquids into the container; the use of a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or the use of a fitted opening in the top of a container through which the hazardous waste is filled and subsequently purging the transfer line before removing it from the container opening.

f) For the purpose of compliance with subsection (c)(1)(A) or (d)(1)(A) of this Section, containers must be used that meet the applicable USDOT regulations on packaging hazardous materials for transportation, as follows:

1) The container meets the applicable requirements specified by USDOT in 49 CFR 178 (Specifications for Packaging), or 49 CFR 179 (Specifications for Tank Cars), each incorporated by reference in 35 Ill. Adm. Code 720.111(b).

2) Hazardous waste is managed in the container in accordance with the applicable requirements specified by USDOT in subpart B of 49 CFR 107 (Exemptions), 49 CFR 172 (Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements), 49 CFR 173 (Shippers—General Requirements for Shipments and Packages), and 49 CFR 180 (Continuing Qualification and Maintenance of Packagings), each incorporated by reference in 35 Ill. Adm. Code 720.111(b).

3) For the purpose of complying with this Subpart CC, no exceptions to the 49 CFR 178 or 179 regulations are allowed, except as provided for in subsection (f)(4) of this Section.

4) For a lab pack that is managed in accordance with the USDOT requirements of 49 CFR 178 (Specifications for Packagings), for the purpose of complying with this Subpart CC, an owner or operator may comply with the exceptions for combination packagings specified by USDOT in 49 CFR 173.12(b) (Exceptions for Shipments of Waste Materials), incorporated by reference in 35 Ill. Adm. Code 720.111(b).

g) To determine compliance with the no detectable organic emissions requirement of subsection (d)(1)(B) of this Section, the procedure specified in Section 724.983(d) must be used.

1) Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the container, its cover, and associated closure devices, as applicable to the container, must be checked. Potential leak interfaces that are associated with containers include, but are not limited to, the following: the interface of the cover rim and the container wall; the periphery of any opening on the container or container cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

2) The test must be performed when the container is filled with a material having a volatile organic concentration representative of the range of volatile organic concentrations for the hazardous wastes expected to be managed in this type of container. During the test, the container cover and

closure devices must be secured in the closed position.

h) Procedure for determining a container to be vapor-tight using Reference Method 27 for the purpose of complying with subsection (d)(1)(C) of this Section.

1) The test must be performed in accordance with Reference Method 27.

2) A pressure measurement device must be used that has a precision of ± 2.5 mm (0.098 in) water and that is capable of measuring above the pressure at which the container is to be tested for vapor tightness.

3) If the test results determined by Reference Method 27 indicate that the container sustains a pressure change less than or equal to 750 Pascals (0.11 psig) within five minutes after it is pressurized to a minimum of 4,500 Pascals (0.65 psig), then the container is determined to be vapor-tight.

(Source: Amended at 40 Ill. Reg. ~~—~~ _____, effective _____ ~~_____~~)

SUBPART DD: CONTAINMENT BUILDINGS

Section 724.1101 Design and Operating Standards

a) All containment buildings must comply with the following design and operating standards:

1) The containment building must be completely enclosed with a floor, walls, and a roof to prevent exposure to the elements (e.g., precipitation, wind, run on) and to assure containment of managed wastes.

2) The floor and containment walls of the unit, including the secondary containment system if required under subsection (b) of this Section, must be designed and constructed of materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit, and to prevent failure due to pressure gradients, settlement, compression, or uplift, physical contact with the hazardous wastes to which they are exposed; climatic conditions; and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment

walls. The unit must be designed so that it has sufficient structural strength to prevent collapse or other failure. All surfaces to be in contact with hazardous wastes must be chemically compatible with those wastes. The containment building must meet the structural integrity requirements established by professional organizations generally recognized by the industry such as the American Concrete Institute (ACI) and the American Society of Testing Materials (ASTM). If appropriate to the nature of the waste management operation to take place in the unit, an exception to the structural strength requirement may be made for light-weight doors and windows that meet the following criteria:

A) They provide an effective barrier against fugitive dust emissions under subsection (c)(1)(C) of this Section; and

B) The unit is designed and operated in a fashion that assures that wastes will not actually come in contact with these openings.

3) Incompatible hazardous wastes or treatment reagents must not be placed in the unit or its secondary containment system if they could cause the unit or secondary containment system to leak, corrode, or otherwise fail.

4) A containment building must have a primary barrier designed to withstand the movement of personnel, waste, and handling equipment in the unit during the operating life of the unit and appropriate for the physical and chemical characteristics of the waste to be managed.

b) For a containment building used to manage hazardous wastes containing free liquids or treated with free liquids (the presence of which is determined by the paint filter test, a visual examination, or other appropriate means), the owner or operator must include the following:

1) A primary barrier designed and constructed of materials to prevent the migration of hazardous constituents into the barrier (e.g., a geomembrane covered by a concrete wear surface).

2) A liquid collection and removal system to minimize the accumulation of liquid on the primary barrier of the containment building, as follows:

A) The primary barrier must be sloped to drain liquids to the associated collection system; and

B) Liquids and waste must be collected and removed to minimize hydraulic head on the containment system at the earliest practicable time.

3) A secondary containment system including a secondary barrier designed and constructed to prevent migration of hazardous constituents into the barrier, and a leak detection system that is capable of detecting failure of the primary barrier and collecting accumulated hazardous wastes and liquids at the earliest practicable time.

A) The requirements of the leak detection component of the secondary containment system are satisfied by installation of a system that is, at a minimum, as follows:

i) It is constructed with a bottom slope of 1 percent or more; and

ii) It is constructed of a granular drainage material with a hydraulic conductivity of 1 ~~*~~x 10^{-2} cm/sec or more and a thickness of 12 inches (30.5 cm) or more, or constructed of synthetic or geonet drainage materials with a transmissivity of 3 ~~*~~x 10^{-5} m^2/sec or more.

B) If treatment is to be conducted in the building, an area in which such treatment will be conducted must be designed to prevent the release of liquids, wet materials, or liquid aerosols to other portions of the building.

C) The secondary containment system must be constructed of materials that are chemically resistant to the waste and liquids managed in the containment building and of sufficient strength and thickness to prevent collapse under the pressure exerted by overlaying materials and by any equipment used in the containment building. (Containment buildings can serve as secondary containment systems for tanks placed within the building under

certain conditions. A containment building can serve as an external liner system for a tank, provided it meets the requirements of Section 724.193(e)(1). In addition, the containment building must meet the requirements of Section 724.193(b) and Sections 724.193(c)(1) and (c)(2) to be an acceptable secondary containment system for a tank.)

4) For existing units other than 90-day generator units, USEPA may delay the secondary containment requirement for up to two years, based on a demonstration by the owner or operator that the unit substantially meets the standards of this Subpart DD. In making this demonstration, the owner or operator must have done the following:

A) Provided written notice to USEPA of their request by November 16, 1992. This notification must have described the unit and its operating practices with specific reference to the performance of existing systems, and specific plans for retrofitting the unit with secondary containment;

B) Responded to any comments from USEPA on these plans within 30 days; and

C) Fulfilled the terms of the revised plans, if such plans are approved by USEPA.

c) An owner or operator of a containment building must do the following:

1) It must use controls and practice to ensure containment of the hazardous waste within the unit, and at a minimum:

A) Maintain the primary barrier to be free of significant cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be release from the primary barrier;

B) Maintain the level of the stored or treated hazardous waste within the containment walls of the unit so that the height of any containment wall is not exceeded;

C) Take measures to prevent the tracking of hazardous waste out of the unit by personnel or by equipment used in handling the waste. An area must be designated to decontaminate equipment and any rinsate must be collected and properly managed; and

D) Take measures to control fugitive dust emissions such that any openings (doors, windows, vents, cracks, etc.) exhibit no visible emissions (see Reference Method 22 (Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares) in appendix A to 40 CFR 60 (Test Methods)), incorporated by reference in 35 Ill. Adm. Code 720.111(b). In addition, all associated particulate collection devices (e.g., fabric filter, electrostatic precipitator, etc.) must be operated and maintained with sound air pollution control practices (see 40 CFR 60 for guidance). This state of no visible emissions must be maintained effectively at all times during routine operating and maintenance conditions, including when vehicles and personnel are entering and exiting the unit.

BOARD NOTE: At 40 CFR 264.1101(c)(1)(iv) (2005), USEPA cites "40 CFR part 60, subpart 292." At 57 Fed. Reg. 37217 (Aug. 18, 1992), USEPA repeats this citation in the preamble discussion of adoption of the rules. No such provision exists in the Code of Federal Regulations. While 40 CFR 60.292 of the federal regulations pertains to control of fugitive dust emissions, that provision is limited in its application to glass melting furnaces. The Board has chosen to use the general citation: "40 CFR 60."

2) It must obtain and keep on site a certification by a qualified Professional Engineer that the containment building design meets the requirements of subsections (a) through (c) of this Section.

3) Throughout the active life of the containment building, if the owner or operator detects a condition that could lead to or has caused a release of hazardous waste, it must repair the condition promptly, in accordance with the following procedures:

A) Upon detection of a condition that has led to a release of hazardous

wastes (e.g., upon detection of leakage from the primary barrier) the owner or operator must do the following:

i) Enter a record of the discovery in the facility operating record;

ii) Immediately remove the portion of the containment building affected by the condition from service;

iii) Determine what steps must be taken to repair the containment building, remove any leakage from the secondary collection system, and establish a schedule for accomplishing the cleanup and repairs; and

iv) Within seven days after the discovery of the condition, notify the Agency in writing of the condition, and within 14 working days, provide a written notice to the Agency with a description of the steps taken to repair the containment building, and the schedule for accomplishing the work.

B) The Agency must review the information submitted, make a determination in accordance with Section 34 of the Act, regarding whether the containment building must be removed from service completely or partially until repairs and cleanup are complete, and notify the owner or operator of the determination and the underlying rationale in writing.

C) Upon completing all repairs and cleanup the owner and operator must notify the Agency in writing and provide a verification, signed by a qualified, registered professional engineer, that the repairs and cleanup have been completed according to the written plan submitted in accordance with subsection (c)(3)(A)(iv) of this Section.

4) It must inspect and record in the facility's operating record, at least once every seven days, data gathered from monitoring and leak detection equipment, as well as the containment building and the area immediately surrounding the containment building, to detect signs of releases of

hazardous waste..

d) For a containment building that contains both areas with and without secondary containment, the owner or operator must do the following:

1) Design and operate each area in accordance with the requirements enumerated in subsections (a) through (c) of this Section;

2) Take measures to prevent the release of liquids or wet materials into areas without secondary containment; and

3) Maintain in the facility~~'~~'s operating log a written description of the operating procedures used to maintain the integrity of areas without secondary containment.

e) Notwithstanding any other provision of this Subpart DD, the Agency must, in writing, allow the use of alternatives to the requirements for secondary containment for a permitted containment building where the Agency has determined that the facility owner or operator has adequately demonstrated that the only free liquids in the unit are limited amounts of dust suppression liquids required to meet occupational health and safety requirements, and where containment of managed wastes and liquids can be assured without a secondary containment system.

(Source: Amended at 40 Ill. Reg. ~~—~~ _____, effective _____ ~~_____~~)

Section 724.1102 Closure and Post-Closure Care

a) At closure of a containment building, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate~~,~~ and manage them as hazardous waste~~,~~ unless 35 Ill. Adm. Code 721.103(e) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for containment buildings must meet all of the requirements specified in Subparts G and H of of this Part35 Ill. Adm. Code ~~739 of this Part.~~739.

b) If, after removing or decontaminating all residues and making all reasonable

efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in subsection (a) of this Section, the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he must close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills (Section35 Ill. Adm. Code ~~Section~~ 724.310). In addition, for the purposes of closure, post-closure, and financial responsibility, such a containment building is then considered to be a landfill, and the owner or operator must meet all the requirements for landfills specified in Subparts G and H of this Part35 Ill. Adm. Code ~~739 of this Part.~~739.

(Source: Amended at 40 Ill. Reg. ~~—~~_____, effective _____~~_____~~)

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Moved to	1
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