

ILLINOIS POLLUTION CONTROL BOARD

December 2, 1999

IN THE MATTER OF: )  
 )  
RCRA SUBTITLE C UPDATE, USEPA ) R00-5  
AMENDMENTS (January 1, 1999, through ) (Identical-in-Substance  
June 30, 1999) ) Rulemaking - Land)

Adopted Rule. Final Order.

ORDER OF THE BOARD (by E.Z. Kezelis):

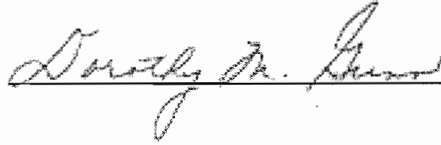
Under Sections 7.2 and 22.4(a) of the Environmental Protection Act (Act) (415 ILCS 5/7.2 and 22.4(a) (1998)), the Board today adopts amendments to the Illinois regulations that are "identical in substance" to hazardous waste regulations that the United States Environmental Protection Agency (USEPA) adopted to implement Subtitle C of the federal Resource Conservation and Recovery Act of 1976 (RCRA Subtitle C) (42 U.S.C. §§ 6921 *et seq.* (1998)). The nominal timeframe of this docket includes federal RCRA Subtitle C amendments that USEPA adopted in the period January 1, 1999, through June 30, 1999.

Sections 7.2 and 22.4(a) provide for quick adoption of regulations that are identical in substance to federal regulations that USEPA adopts to implement Sections 3001 through 3005 of RCRA (42 U.S.C. §§ 6921-6925 (1998)). Section 22.4(a) also provides that Title VII of the Act and Section 5 of the Administrative Procedure Act (APA) (5 ILCS 100/5-35 and 5-40 (1998)) do not apply to the Board's adoption of identical-in-substance regulations. The federal RCRA Subtitle C regulations are found at 40 C.F.R. 260 through 266, 268, 270, 271, 273, and 279.

This order is supported by an opinion that the Board also adopts today. The Board will wait 30 days for USEPA to review the amendments, as provided in the agreement between USEPA and the State of Illinois relating to federal authorization of the State program, in order to allow USEPA an additional opportunity to review the amendments before they become effective. We will then file the amendments with the Secretary of State and submit Notices of Adopted Amendments for publication in the *Illinois Register*. The complete text of the adopted amendments follows.

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, do hereby certify that the above order was adopted on the 2nd day of December 1999 by a vote of 6-0.

A handwritten signature in cursive script, reading "Dorothy M. Gunn", is written over a horizontal line.

Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board

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

PART 720  
 HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL

SUBPART A: GENERAL PROVISIONS

Section

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

SUBPART B: DEFINITIONS

Section

- 720.110 Definitions  
 720.111 References

SUBPART C: RULEMAKING PETITIONS AND OTHER PROCEDURES

Section

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

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

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

SOURCE: Adopted in R81-22, 43 PCB 427, at 5 Ill. Reg. 9781, effective May 17, 1982; amended and codified in R81-22, 45 PCB 317, at 6 Ill. Reg. 4828, effective May 17, 1982; amended in R82-19 at 7 Ill. Reg. 14015, effective October 12, 1983; amended in R84-9, 53 PCB 131 at 9 Ill. Reg. 11819, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 968, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 13998, effective August 12, 1986; amended in R86-19 at 10 Ill. Reg. 20630, effective December 2, 1986; amended in R86-28 at 11 Ill. Reg. 6017, effective March 24, 1987; amended in R86-46 at 11 Ill. Reg. 13435,

effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19280, effective November 12, 1987; amended in R87-26 at 12 Ill. Reg. 2450, effective January 15, 1988; amended in R87-39 at 12 Ill. Reg. 12999, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 362, effective December 27, 1988; amended in R89-1 at 13 Ill. Reg. 18278, effective November 13, 1989; amended in R89-2 at 14 Ill. Reg. 3075, effective February 20, 1990; amended in R89-9 at 14 Ill. Reg. 6225, effective April 16, 1990; amended in R90-10 at 14 Ill. Reg. 16450, effective September 25, 1990; amended in R90-17 at 15 Ill. Reg. 7934, effective May 9, 1991; amended in R90-11 at 15 Ill. Reg. 9323, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14446, effective September 30, 1991; amended in R91-13 at 16 Ill. Reg. 9489, effective June 9, 1992; amended in R92-1 at 16 Ill. Reg. 17636, effective November 6, 1992; amended in R92-10 at 17 Ill. Reg. 5625, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20545, effective November 22, 1993; amended in R93-16 at 18 Ill. Reg. 6720, effective April 26, 1994; amended in R94-7 at 18 Ill. Reg. 12160, effective July 29, 1994; amended in R94-17 at 18 Ill. Reg. 17480, effective November 23, 1994; amended in R95-6 at 19 Ill. Reg. 9508, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 10929, August 1, 1996; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 256, effective December 16, 1997; amended in R98-12 at 22 Ill. Reg. 7590, effective April 15, 1998; amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. 17496, effective September 28, 1998; amended in R98-21/R99-2/R99-7 at 23 Ill. Reg. 1704, effective January 19, 1999; amended in R99-15 at 23 Ill. Reg. 9094, effective July 26, 1999; amended in R00-5 at 24 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

## SUBPART B: DEFINITIONS

### Section 720.111      References

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

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

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

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

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

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

"Cathodic Protection of Underground Petroleum Storage Tanks

and Piping Systems”, API Recommended Practice 1632, Second Edition, December, 1987.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

MICE. Methods Information Communication Exchange Service, 703-821-4690:

“Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA Publication number SW-846, Update IIIA (April 1998).

GPO. Available from the Superintendent of Documents, U.S.

Government Printing Office, Washington, D.C. 20402, ~~202-783-3238~~ 202-512-1800:

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

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

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

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

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

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

NTIS. Available from the U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, ~~703-487-4600~~ 703-605-6000 or 800-553-6847:

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

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

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

“Method 164, Revision A, n-Hexane Extractable Material (HEM; Oil and Grease) and Silica Gel Treated n-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry.” Document number PB99-121949.

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

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

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

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

“Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA Publication number SW-846 (Third Edition, November, 1986), as amended by Updates I (July, 1992), II (September, 1994), IIA (August, 1993), IIB (January, 1995), and III (December, 1996), and IIIA (April 1998) (Document Number 955-001-00000-1).

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

10 CFR 20, Appendix B (1998)

40 CFR 51.100(ii) (1998)

40 CFR 51, Appendix W (1998)

40 CFR 52.741, Appendix B (1998)

40 CFR 60 (1998)

40 CFR 61, Subpart V (1998)

40 CFR 63 (1998)

40 CFR 136 (1998), as corrected at 63 Fed. Reg. 38756 (July 20, 1998) and 63 Fed. Reg. 44146 (Aug. 18, 1998) and amended at 63 Fed. Reg. 50387 (Sep. 21, 1998), 64 Fed. Reg. 4975 (Feb. 2, 1999), 64 Fed. Reg. 26315 (May 14, 1999), and 64 Fed. Reg. 30417 (June 8, 1999)

40 CFR 142 (1998)

40 CFR 220 (1998)

40 CFR 232.2 (1998)

40 CFR 260.20 (1998)

40 CFR 264 (1998)

40 CFR 268.41 (1990)

40 CFR 268.Appendix IX (1998)

40 CFR 270.5 (1998)

40 CFR 302.4, 302.5, and 302.6 (1998)

40 CFR 761 (1998)

49 CFR 171 (1998)

49 CFR 173 (1998)

49 CFR 178 (1998)

c) Federal Statutes

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

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

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

d) This Section incorporates no later editions or amendments.

(Source: Amended at 24 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

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

PART 722  
STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE

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

SUBPART B: THE MANIFEST

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722.121	Acquisition of Manifests

- 722.122 Number of Copies  
722.123 Use of the Manifest

#### SUBPART C: PRE-TRANSPORT REQUIREMENTS

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722.130 Packaging  
722.131 Labeling  
722.132 Marking  
722.133 Placarding  
722.134 Accumulation Time

#### SUBPART D: RECORDKEEPING AND REPORTING

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722.140 Recordkeeping  
722.141 Annual Reporting  
722.142 Exception Reporting  
722.143 Additional Reporting  
722.144 Special Requirements for Generators of between 100 and 1000 kilograms per month

#### SUBPART E: EXPORTS OF HAZARDOUS WASTE

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722.151 Definitions  
722.152 General Requirements  
722.153 Notification of Intent to Export  
722.154 Special Manifest Requirements  
722.155 Exception Report  
722.156 Annual Reports  
722.157 Recordkeeping  
722.158 International Agreements

#### SUBPART F: IMPORTS OF HAZARDOUS WASTE

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722.160 Imports of Hazardous Waste

#### SUBPART G: FARMERS

- Section  
722.170 Farmers

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

- Section  
722.180 Applicability  
722.181 Definitions

722.182	General Conditions
722.183	Notification and Consent
722.184	Tracking Document
722.185	Contracts
722.186	Provisions Relating to Recognized Traders
722.187	Reporting and Recordkeeping
722.189	OECD Waste Lists

722.Appendix A Hazardous Waste Manifest

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

**SOURCE:** Adopted in R81-22, 43 PCB 427, at 5 Ill. Reg. 9781, effective May 17, 1982; amended and codified in R81-22, 45 PCB 317, at 6 Ill. Reg. 4828, effective May 17, 1982; amended in R82-18, 51 PCB 31, at 7 Ill. Reg. 2518, effective February 22, 1983; amended in R84-9 at 9 Ill. Reg. 11950, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 1131, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 14112, effective August 12, 1986; amended in R86-19 at 10 Ill. Reg. 20709, effective December 2, 1986; amended in R86-46 at 11 Ill. Reg. 13555, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19392, effective November 12, 1987; amended in R87-39 at 12 Ill. Reg. 13129, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 452, effective December 27, 1988; amended in R89-1 at 13 Ill. Reg. 18523, effective November 13, 1989; amended in R90-10 at 14 Ill. Reg. 16653, effective September 25, 1990; amended in R90-11 at 15 Ill. Reg. 9644, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14562, effective October 1, 1991; amended in R91-13 at 16 Ill. Reg. 9833, effective June 9, 1992; amended in R92-1 at 16 Ill. Reg. 17696, effective November 6, 1992; amended in R93-4 at 17 Ill. Reg. 20822, effective November 22, 1993; amended in R95-6 at 19 Ill. Reg. 9935, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 11236, effective August 1, 1996; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 603, effective December 16, 1997; amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. 17950, effective September 28, 1998; amended in R00-5 at 24 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

### SUBPART C: PRE-TRANSPORT REQUIREMENTS

Section 722.134 Accumulation Time

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

- A) In containers, and the generator complies with 35 Ill. Adm. Code 725.Subparts I, AA, BB, and CC; ~~or~~
- B) In tanks, and the generator complies with 35 Ill. Adm. Code 725.Subparts J, AA, BB, and CC, except 35 Ill. Adm. Code 725.297(c) and 725.300; ~~or~~
- C) On drip pads, and the generator complies with 35 Ill. Adm. Code 725.Subpart W and maintains the following records at the facility:
  - i) A description of the procedures that will be followed to ensure that all wastes are removed from the drip pad and associated collection system at least once every 90 days, and
  - ii) Documentation of each waste removal, including the quantity of waste removed from the drip pad and the sump or collection system and the date and time of removal; or
- D) In containment buildings, and the generator complies with 35 Ill. Adm. Code 725.Subpart DD (has placed its Professional Engineer (PE) certification that the building complies with the design standards specified in 35 Ill. Adm. Code 725.1101 in the facility's operating record prior to the date of initial operation of the unit). The owner or operator shall maintain the following records at the facility:
  - i) A written description of procedures to ensure that each waste volume remains in the unit for no more than 90 days, a written description of the waste generation and management practices for the facility showing that they are consistent with respecting the 90 day limit, and documentation that the procedures are complied with; or
  - ii) Documentation that the unit is emptied at least once every 90 days;

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

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

- 3) While being accumulated on-site, each container and tank is labeled or marked clearly with the words "Hazardous Waste"; and
  - 4) The generator complies with the requirements for treatment, storage, and disposal facility owners or operators in 35 Ill. Adm. Code 725.Subparts C and D and with 35 Ill. Adm. Code 725.116 and 728.107(a)(4).
- b) A generator that accumulates hazardous waste for more than 90 days is an operator of a storage facility and is subject to the requirements of 35 Ill. Adm. Code 724 and 725 and the permit requirements of 35 Ill. Adm. Code 702, 703 and 705 unless the generator has been granted an extension of the 90-day period. If hazardous wastes must remain on-site for longer than 90 days due to unforeseen, temporary, and uncontrollable circumstances, the generator may seek an extension of up to 30 days by means of a variance or provisional variance, pursuant to Section 37 of the Environmental Protection Act and 35 Ill. Adm. Code 180 (Agency procedural regulations).
- c) Accumulation near the point of generation.
- 1) A generator may accumulate as much as 55 gallons of hazardous waste or one quart of acutely hazardous waste listed in 35 Ill. Adm. Code 721.133(e) in containers at or near any point of generation where wastes initially accumulate that is under the control of the operator of the process generating the waste without a permit or interim status and without complying with subsection (a) of this Section, provided the generator does the following:
    - A) Complies with 35 Ill. Adm. Code 725.271, 725.272<sub>1</sub> and 725.273(a)<sub>1</sub> and
    - B) Marks the generator's containers either with the words "Hazardous Waste" or with other words that identify the contents of the containers.
  - 2) A generator that accumulates either hazardous waste or acutely hazardous waste listed in 35 Ill. Adm. Code 721.133(e) in excess of the amounts listed in subsection (c)(1) of this Section at or near any point of generation must, with respect to that amount of excess waste, comply within three days with subsection (a) of this Section or other applicable provisions of this Chapter. During the three day period the generator must continue to comply with subsection (c)(1) of this Section. The generator must mark the container holding the excess accumulation of hazardous waste with the date the excess amount began accumulating.

- d) A generator that generates greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month may accumulate hazardous waste on-site for 180 days or less without a permit or without having interim status provided that the following conditions are fulfilled:
- 1) The quantity of waste accumulated on-site never exceeds 6000 kilograms;
  - 2) The generator complies with the requirements of 35 Ill. Adm. Code 725.Subpart I (except 35 Ill. Adm. Code 725.276 and 725.278);
  - 3) The generator complies with the requirements of 35 Ill. Adm. Code 725.301;
  - 4) The generator complies with the requirements of subsections (a)(2) and ~~(e)(3)~~ (a)(3) of this Section, 35 Ill. Adm. Code 725.Subpart C, and 35 Ill. Adm. Code ~~728.107(a)(4)~~ 728.107(a)(5); and
  - 5) The generator complies with the following requirements:
    - A) At all times there must be at least one employee either on the premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures specified in subsection (d)(5)(D) of this Section. The employee is the emergency coordinator.
    - B) The generator shall post the following information next to the telephone:
      - i) The name and telephone number of the emergency coordinator;
      - ii) Location of fire extinguishers and spill control material and, if present, fire alarm; and
      - iii) The telephone number of the fire department, unless the facility has a direct alarm.
    - C) The generator shall ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
    - D) The emergency coordinator or designee shall respond to any



emergencies that arise. The applicable responses are as follows:

- i) In the event of a fire, call the fire department or attempt to extinguish it using a fire extinguisher;
  - ii) In the event of a spill, contain the flow of hazardous waste to the extent possible and, as soon as is practicable, clean up the hazardous waste and any contaminated materials or soil;
  - iii) In the event of a fire, explosion, or other release that could threaten human health outside the facility, or when the generator has knowledge that a spill has reached surface water, the generator shall immediately notify the National Response Center (using its 24-hour toll free number 800-424-8802). The report must include the following information: the name, address, and USEPA identification number (Section 722.112 of this Part) of the generator; the date, time, and type of incident (e.g., spill or fire); the quantity and type of hazardous waste involved in the incident; the extent of injuries, if any; and the estimated quantity and disposition of recoverable materials, if any.
- e) A generator that generates greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month and that must transport the waste or offer the waste for transportation over a distance of 200 miles or more for off-site treatment, storage, or disposal may accumulate hazardous waste on-site for 270 days or less without a permit or without having interim status, provided that the generator complies with the requirements of subsection (d) of this Section.
- f) A generator that generates greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month and that accumulates hazardous waste in quantities exceeding 6000 kg or accumulates hazardous waste for more than 180 days (or for more than 270 days if the generator must transport the waste or offer the waste for transportation over a distance of 200 miles or more) is an operator of a storage facility and is subject to the requirements of 35 Ill. Adm. Code 724 and 725 and the permit requirements of 35 Ill. Adm. Code 703, unless the generator has been granted an extension to the 180-day (or 270-day if applicable) period. If hazardous wastes must remain on-site for longer than 180 days (or 270 days if applicable) due to unforeseen, temporary, and uncontrollable circumstances, the generator may seek an extension of up to 30 days by means of variance or provisional variance pursuant to Section 37 of the Environmental Protection Act.

(Source: Amended at 24 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

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

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

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

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



Reg. 17601, effective November 23, 1994; amended in R95-6 at 19 Ill. Reg. 9951, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 11244, 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. \_\_\_\_\_, effective \_\_\_\_\_.

## SUBPART AA: AIR EMISSION STANDARDS FOR PROCESS VENTS

### Section 724.931 Definitions

As used in this Subpart, all terms not defined in ~~the~~this Subpart have the meaning given them in the Resource Conservation and Recovery Act and 35 Ill. Adm. Code 720 through 726.

“Air stripping operation” ~~is~~means a desorption operation employed to transfer one or more volatile components from a liquid mixture into a gas (air) either with or without the application of heat to the liquid. Packed towers, spray towers and bubble-cap, sieve, or valve-type plate towers are among the process configurations used for contacting the air and a liquid.

“Bottoms receiver” means a container or tank used to receive and collect the heavier bottoms fractions of the distillation feed stream that remain in the liquid phase.

“Btu” means British thermal unit.

“Closed-vent system” means a system that is not open to the atmosphere and that is composed of piping, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device.

“Condenser” means a heat-transfer device that reduces a thermodynamic fluid from its vapor phase to its liquid phase.

“Connector” means flanged, screwed, welded or other joined fittings used to connect two pipelines or a pipeline and a piece of equipment. For the purposes of reporting and recordkeeping, “connector” means flanged fittings that are not covered by insulation or other materials that prevent location of the fittings.

“Continuous recorder” means a data-recording device recording an instantaneous data value at least once every 15 minutes.

“Control device” means an enclosed combustion device, vapor recovery system,

or flare. Any device the primary function of which is the recovery or capture of solvents or other organics for use, reuse, or sale (e.g., a primary condenser on a solvent recovery unit) is not a control device.

“Control device shutdown” means the cessation of operation of a control device for any purpose.

“Distillate receiver” means a container or tank used to receive and collect liquid material (condensed) from the overhead condenser of a distillation unit and from which the condensed liquid is pumped to larger storage tanks or other process units.

“Distillation operation” means an operation, either batch or continuous, separating one or more feed stream(s) into two or more exit streams, each exit stream having component concentrations different from those in the feed stream(s). The separation is achieved by the redistribution of the components between the liquid and vapor phase as they approach equilibrium within the distillation unit.

“Double block and bleed system” means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

“Equipment” means each valve, pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, ~~or~~ flange or other connector, and any control devices or systems required by this Subpart.

“First attempt at repair” means to take rapid action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.

“Flame zone” means the portion of the combustion chamber in a boiler occupied by the flame envelope.

“Flow indicator” means a device that indicates whether gas flow is present in a vent stream.

“Fractionation operation” means a distillation operation or method used to separate a mixture of several volatile components of different boiling points in successive stages, each stage removing from the mixture some proportion of one of the components.

“ft” means foot.

“h” means hour.

“Hazardous waste management unit shutdown” means a work practice or

operational procedure that stops operation of a hazardous waste management unit or part of a hazardous waste management unit. An unscheduled work practice or operational procedure that stops operation of a hazardous waste management unit or part of a hazardous waste management unit for less than 24 hours is not a hazardous waste management unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping operation are not hazardous waste management unit shutdowns.

“Hot well” means a container for collecting condensate as in a steam condenser serving a vacuum-jet or steam-jet ejector.

“In gas-vapor service” means that the piece of equipment contains or contacts a hazardous waste stream that is in the gaseous state at operating conditions.

“In heavy liquid service” means that the piece of equipment is not in gas-vapor service or in light liquid service.

“In light liquid service” means that the piece of equipment contains or contacts a waste stream where the vapor pressure of one or more of the organic components in the stream is greater than 0.3 kilopascals (kPa) at 20° C, the total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20° C is equal to or greater than 20 percent by weight, and the fluid is a liquid at operating conditions.

“In situ sampling systems” means nonextractive samplers or in-line samplers.

“In vacuum service” means that equipment is operating at an internal pressure that is at least 5 kPa below ambient pressure.

“Kg” means kilogram.

“kPa” means kilopascals.

“lb” means pound.

“m” means meter.

“Mg” means Megagrams, or metric tonnes.

“MJ” means Megajoules, or ten to the sixth Joules.

“MW” means Megawatts.

“Malfunction” means any sudden failure of a control device or a hazardous waste management unit or failure of a hazardous waste management unit to

operate in a normal or usual manner, so that organic emissions are increased.

“Open-ended valve or line” means any valve, except a pressure relief valves valve, having that has one side of the valve seat in contact with process fluid hazardous waste and one side open to the atmosphere, either directly or through open piping.

“ppmv” means parts per million by volume.

“ppmw” means parts per million by weight.

“Pressure release” means the emission of materials resulting from the system pressure being greater than the set pressure of the pressure relief device.

“Process heater” means a device that transfers heat liberated by burning fuel to fluids contained in tubes, including all fluids except water that are heated to produce steam.

“Process vent” means any open-ended pipe or stack that is vented to the atmosphere either directly, through a vacuum-producing system, or through a tank (e.g., distillate receiver, condenser, bottoms receiver, surge control tank, separator tank, or hot well) associated with hazardous waste distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations.

“Repaired” means that equipment is adjusted, or otherwise altered, to eliminate a leak.

“s” means second.

“Sampling connection system” means an assembly of equipment within a process or waste management unit that is used during periods of representative operation to take samples of the process or waste fluid. Equipment that is used to take non-routine grab samples is not considered a sampling connection system.

“scm” means standard cubic meter.

“scft” means standard cubic foot.

“Sensor” means a device that measures a physical quantity or the change in a physical quantity, such as temperature, pressure, flow rate, pH, or liquid level.

“Separator tank” means a device used for separation of two immiscible liquids.

“Solvent extraction operation” means an operation or method of separation in

which a solid or solution is contracted with a liquid solvent (the two being mutually insoluble) to preferentially dissolve and transfer one or more components into the solvent.

“Startup” means the setting in operation of a hazardous waste management unit or control device for any purpose.

“Steam stripping operation” means a distillation operation in which vaporization of the volatile constituents of a liquid mixture takes place by the introduction of steam directly in to the charge.

“Surge control tank” means a large-sized pipe or storage reservoir sufficient to contain the surging liquid discharge of the process tank to which it is connected.

“Thin-film evaporation operation” means a distillation operation that employs a heating surface consisting of a large diameter tube that may be either straight or tapered, horizontal or vertical. Liquid is spread on the tube wall by a rotating assembly of blades that maintain a close clearance from the wall or actually ride on the film of liquid on the wall.

“USDOT” means the United States Department of Transportation.

“Vapor incinerator” means any enclosed combustion device that is used for destroying organic compounds and does not extract energy in the form of steam or process heat.

“Vented” means discharged through an opening, typically an open-ended pipe or stack, allowing the passage of a stream of liquids, gases, or fumes into the atmosphere. The passage of liquids, gases, or fumes is caused by mechanical means, such as compressors or vacuum-producing systems, or by process-related means, such as evaporation produced by heating, and not caused by tank loading and unloading (working losses) or by natural means, such as diurnal temperature changes.

“yr” means year.

(Source: Amended at 24 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

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

### Section 724.980      Applicability

- a)      The requirements of this Subpart apply to owners and operators of all facilities

that treat, store, or dispose of hazardous waste in tanks, surface impoundments, or containers subject to Subpart I, J, or K of this Part, except as Section 724.101 and subsection (b) of this Section provide otherwise.

- b) The requirements of this Subpart do not apply to the following waste management units at the facility:
- 1) A waste management unit that holds hazardous waste placed in the unit before December 6, 1996, and in which no hazardous waste is added to the unit on or after December 6, 1996.
  - 2) A container that has a design capacity less than or equal to 0.1 m<sup>3</sup> (3.5 ft<sup>3</sup> or 26.4 gal).
  - 3) A tank in which an owner or operator has stopped adding hazardous waste and the owner or operator has begun implementing or completed closure pursuant to an approved closure plan.
  - 4) A surface impoundment in which an owner or operator has stopped adding hazardous waste (except to implement an approved closure plan) and the owner or operator has begun implementing or completed closure pursuant to an approved closure plan.
  - 5) A waste management unit that is used solely for on-site treatment or storage of hazardous waste that is ~~generated-placed in the unit as the a~~ result of implementing remedial activities required pursuant to the Act or Board regulations or under the corrective action authorities of RCRA section 3004(u), 3004(v), or 3008(h); CERCLA authorities; or similar federal or State authorities.
  - 6) A waste management unit that is used solely for the management of radioactive mixed waste in accordance with all applicable regulations under the authority of the Atomic Energy Act (42 USC 2011 et seq.) and the Nuclear Waste Policy Act.
  - 7) A hazardous waste management unit that the owner or operator certifies is equipped with and operating air emission controls in accordance with the requirements of an applicable federal Clean Air Act regulation codified under 40 CFR 60, 61, or 63. For the purpose of complying with this subsection (b)(7), a tank for which the air emission control includes an enclosure, as opposed to a cover, must be in compliance with the enclosure and control device requirements of Section 724.984(i), except as provided in Section 724.982(c)(5).
  - 8) A tank that has a process vent, as defined in 35 Ill. Adm. Code 724.931.

- c) For the owner and operator of a facility subject to this Subpart and that received a final RCRA permit prior to December 6, 1996, the requirements of this Subpart ~~shall~~must be incorporated into the permit when the permit is reissued, renewed, or modified in accordance with the requirements of 35 Ill. Adm. Code 703 and 705. Until ~~such~~the date when the owner and operator receives a final permit incorporating the requirements of this Subpart, the owner and operator is subject to the requirements of 35 Ill. Adm. Code 725.Subpart CC.
- d) The requirements of this Subpart, except for the recordkeeping requirements specified in Section 724.989(i), are stayed for a tank or container used for the management of hazardous waste generated by organic peroxide manufacturing and its associated laboratory operations, when the owner or operator of the unit meets all of the following conditions:
- 1) The owner or operator identifies that the tank or container receives hazardous waste generated by an organic peroxide manufacturing process producing more than one functional family of organic peroxides or multiple organic peroxides within one functional family, that one or more of these organic peroxides could potentially undergo self-accelerating thermal decomposition at or below ambient temperatures, and that organic peroxides are the predominant products manufactured by the process. For the purposes of this subsection, “organic peroxide” means an organic compound that contains the bivalent -O-O- structure and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.
  - 2) The owner or operator prepares documentation, in accordance with Section 724.989(i), explaining why an undue safety hazard would be created if air emission controls specified in Sections 724.984 through 724.987 are installed and operated on the tanks and containers used at the facility to manage the hazardous waste generated by the organic peroxide manufacturing process or processes meeting the conditions of subsection (d)(1) of this Section.
  - 3) The owner or operator notifies the Agency in writing that hazardous waste generated by an organic peroxide manufacturing process or processes meeting the conditions of subsection (d)(1) of this Section are managed at the facility in tanks or containers meeting the conditions of subsection (d)(2) of this Section. The notification must state the name and address of the facility and be signed and dated by an authorized representative of the facility owner or operator.

(Source: Amended at 24 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## Section 724.983 Waste Determination Procedures

- a) Waste determination procedure for average volatile organic (VO) concentration of a hazardous waste at the point of waste origination.
  - 1) An owner or operator shall determine the average VO concentration at the point of waste origination for each hazardous waste placed in a waste management unit exempted under the provisions of Section 724.982(c)(1) from using air emission controls in accordance with standards specified in Section 724.984 through Section 724.987, as applicable to the waste management unit.
    - A) An owner or operator shall make an initial determination of the average VO concentration of the waste stream before the first time any portion of the material in the hazardous waste stream is placed in a waste management unit exempted under the provisions of Section 724.982(c)(1) from using air emission controls. Thereafter, an owner or operator shall make an initial determination of the average VO concentration of the waste stream for each averaging period that a hazardous waste is managed in the unit.
    - B) An owner or operator shall perform a new waste determination whenever changes to the source generating the waste stream are reasonably likely to cause the average VO concentration of the hazardous waste to increase to a level that is equal to or greater than the applicable VO concentration limits specified in Section 724.982.
  - 2) For a waste determination that is required by subsection (a)(1) of this Section, the average VO concentration of a hazardous waste at the point of waste origination ~~shall~~ must be determined in accordance with the procedures specified in 35 Ill. Adm. Code 725.984(a)(2) through (a)(4).
- b) Waste determination procedures for treated hazardous waste.
  - 1) An owner or operator shall perform the applicable waste determination for each treated hazardous waste placed in a waste management unit exempted under the provisions of Section 724.982(c)(2)(A) through (c)(2)(F) from using air emission controls in accordance with standards specified in Sections 724.984 through 724.987, as applicable to the waste management unit.
    - A) An owner or operator shall make an initial determination of the



average VO concentration of the waste stream before the first time any portion of the material in the treated waste stream is placed in the exempt waste management unit. Thereafter, an owner or operator shall update the information used for the waste determination at least once every 12 months following the date of the initial waste determination.

B) An owner or operator shall perform a new waste determination whenever changes to the process generating or treating the waste stream are reasonably likely to cause the average VO concentration of the hazardous waste to increase to such a level that the applicable treatment conditions specified in Section 724.982(c)(2) are not achieved.

- 2) The waste determination for a treated hazardous waste ~~shall~~ must be performed in accordance with the procedures specified in 35 Ill. Adm. Code 725.984(b)(2) through (b)(9), as applicable to the treated hazardous waste.
- c) Procedure to determine the maximum organic vapor pressure of a hazardous waste in a tank.
  - 1) An owner or operator shall determine the maximum organic vapor pressure for each hazardous waste placed in a tank using Tank Level 1 controls in accordance with standards specified in Section 724.984(c).
  - 2) The maximum organic vapor pressure of the hazardous waste may be determined in accordance with the procedures specified in 35 Ill. Adm. Code 725.984(c)(2) through (c)(4).
- d) The procedure for determining no detectable organic emissions for the purpose of complying with this Subpart must be conducted in accordance with the procedures specified in 35 Ill. Adm. Code 725.984(d).

(Source: Amended at 24 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 724.984 Standards: Tanks

- a) The provisions of this Section apply to the control of air pollutant emissions from tanks for which Section 724.982(b) references the use of this Section for such air emission control.
- b) The owner or operator shall control air pollutant emissions from each tank subject to this Section in accordance with the following requirements, as applicable:

- 1) For a tank that manages hazardous waste that meets all of the conditions specified in subsections (b)(1)(A) through (b)(1)(C) of this Section, the owner or operator shall control air pollutant emissions from the tank in accordance with the Tank Level 1 controls specified in subsection (c) of this Section or the Tank Level 2 controls specified in subsection (d) of this Section.
  - A) The hazardous waste in the tank has a maximum organic vapor pressure that is less than the maximum organic vapor pressure limit for the tank's design capacity category as follows:
    - i) For a tank design capacity equal to or greater than 151 m<sup>3</sup> (39,900 gal), the maximum organic vapor pressure limit for the tank is 5.2 kPa (0.75 psig).
    - ii) For a tank design capacity equal to or greater than 75 m<sup>3</sup> (19,800 gal) but less than 151 m<sup>3</sup> (39,900 gal), the maximum organic vapor pressure limit for the tank is 27.6 kPa (4.00 psig).
    - iii) For a tank design capacity less than 75 m<sup>3</sup> (19,800 gal), the maximum organic vapor pressure limit for the tank is 76.6 kPa (11.1 psig).
  - B) The hazardous waste in the tank is not heated by the owner or operator to a temperature that is greater than the temperature at which the maximum organic vapor pressure of the hazardous waste is determined for the purpose of complying with subsection (b)(1)(A) of this Section.
  - C) The owner or operator does not treat the hazardous waste in the tank ~~is not treated by the owner or operator~~ using a waste stabilization process, as defined in 35 Ill. Adm. Code 725.981.
- 2) For a tank that manages hazardous waste that does not meet all of the conditions specified in subsections (b)(1)(A) through (b)(1)(C) of this Section, the owner or operator shall control air pollutant emissions from the tank by using Tank Level 2 controls in accordance with the requirements of subsection (d) of this Section. Examples of tanks required to use Tank Level 2 controls include a tank used for a waste stabilization process and a tank for which the hazardous waste in the tank has a maximum organic vapor pressure that is equal to or greater than the maximum organic vapor pressure limit for the tank's design capacity category as specified in subsection (b)(1)(A) of this Section.

- c) Owners and operators controlling air pollutant emissions from a tank using Tank Level 1 controls must meet the requirements specified in subsections (c)(1) through (c)(4) of this Section:
- 1) The owner or operator shall determine the maximum organic vapor pressure for a hazardous waste to be managed in the tank using Tank Level 1 controls before the first time the hazardous waste is placed in the tank. The maximum organic vapor pressure must be determined using the procedures specified in Section 724.983(c). Thereafter, the owner or operator shall perform a new determination whenever changes to the hazardous waste managed in the tank could potentially cause the maximum organic vapor pressure to increase to a level that is equal to or greater than the maximum organic vapor pressure limit for the tank design capacity category specified in subsection (b)(1)(A) of this Section, as applicable to the tank.
  - 2) The tank must be equipped with a fixed roof designed to meet the following specifications:
    - A) The fixed roof and its closure devices must be designed to form a continuous barrier over the entire surface area of the hazardous waste in the tank. The fixed roof may be a separate cover installed on the tank (e.g., a removable cover mounted on an open-top tank) or may be an integral part of the tank structural design (e.g., a horizontal cylindrical tank equipped with a hatch).
    - B) The fixed roof must be installed in such a manner ~~such~~ that there are no visible cracks, holes, gaps, or other open spaces between roof section joints or between the interface of the roof edge and the tank wall.
    - C) Either of the following must be true of each opening in the fixed roof and of any manifold system associated with the fixed roof:
      - i) The opening or manifold system is equipped with a closure device designed to operate ~~such~~ so that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device; or
      - ii) The opening or manifold system is connected by a closed-vent system that is vented to a control device. The control device must remove or destroy organics in the vent

stream, and it must be operating whenever hazardous waste is managed in the tank, except as provided for in subsection (c)(2)(E) of this Section.

- D) The fixed roof and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices must include the following: the organic vapor permeability; the effects of any contact with the hazardous waste or its vapors managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.
- E) The control device operated pursuant to subsection (c)(2)(C) of this Section needs not remove or destroy organics in the vent stream under the following conditions:
- i) During periods when it is necessary to provide access to the tank for performing the activities of subsection (c)(2)(E)(ii) of this Section, venting of the vapor headspace underneath the fixed roof to the control device is not required, opening of closure devices is allowed, and removal of the fixed roof is allowed. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, and resume operation of the control device; and
  - ii) During periods of routine inspection, maintenance, or other activities needed for normal operations, and for removal of accumulated sludge or other residues from the bottom of the tank.

BOARD NOTE: Subsections (c)(2)(E)(i) and (c)(2)(E)(ii) are derived from 40 CFR 264.1084(c)(2)(iii)(B)(1) and (c)(2)(iii)(B)(2), which the Board has codified here to comport with Illinois Administrative Code format requirements.

- 3) Whenever a hazardous waste is in the tank, the fixed roof must be installed with each closure device secured in the closed position, except as follows:

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

by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

- B) The owner or operator shall perform an initial inspection of the fixed roof and its closure devices on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except under the special conditions provided for in subsection (l) of this Section.
  - C) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k) of this Section.
  - D) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 724.989(b).
- d) Owners and operators controlling air pollutant emissions from a tank using Tank Level 2 controls must use one of the following tanks:
- 1) A fixed-roof tank equipped with an internal floating roof in accordance with the requirements specified in subsection (e) of this Section;
  - 2) A tank equipped with an external floating roof in accordance with the requirements specified in subsection (f) of this Section;
  - 3) A tank vented through a closed-vent system to a control device in accordance with the requirements specified in subsection (g) of this Section;
  - 4) A pressure tank designed and operated in accordance with the requirements specified in subsection (h) of this Section; or
  - 5) A tank located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device in accordance with the requirements specified in subsection (i) of this Section.
- e) The owner or operator that controls air pollutant emissions from a tank using a fixed roof with an internal floating roof shall meet the requirements specified in subsections (e)(1) through (e)(3) of this Section.

- 1) The tank must be equipped with a fixed roof and an internal floating roof in accordance with the following requirements:
  - A) The internal floating roof must be designed to float on the liquid surface except when the floating roof must be supported by the leg supports.
  - B) The internal floating roof must be equipped with a continuous seal between the wall of the tank and the floating roof edge that meets either of the following requirements:
    - i) A single continuous seal that is either a liquid-mounted seal or a metallic shoe seal, as defined in 35 Ill. Adm. Code 725.981; or
    - ii) Two continuous seals mounted one above the other. The lower seal may be a vapor-mounted seal.
  - C) The internal floating roof must meet the following specifications:
    - i) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.
    - ii) Each opening in the internal floating roof must be equipped with a gasketed cover or a gasketed lid except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains.
    - iii) Each penetration of the internal floating roof for the purpose of sampling must have a slit fabric cover that covers at least 90 percent of the opening.
    - iv) Each automatic bleeder vent and rim space vent must be gasketed.
    - v) Each penetration of the internal floating roof that allows for passage of a ladder must have a gasketed sliding cover.
    - vi) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof must have a flexible fabric sleeve seal or a gasketed sliding cover.

- 2) The owner or operator shall operate the tank in accordance with the following requirements:
  - A) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling must be continuous and must be completed as soon as practical.
  - B) Automatic bleeder vents are to be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.
  - C) Prior to filling the tank, each cover, access hatch, gauge float well or lid on any opening in the internal floating roof must be bolted or fastened closed (i.e., no visible gaps). Rim space vents must be set to open only when the internal floating roof is not floating or when the pressure beneath the rim exceeds the manufacturer's recommended setting.
- 3) The owner or operator shall inspect the internal floating roof in accordance with the procedures specified as follows:
  - A) The floating roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, any of the following: when the internal floating roof is not floating on the surface of the liquid inside the tank; when liquid has accumulated on top of the internal floating roof; when any portion of the roof seals have detached from the roof rim; when holes, tears, or other openings are visible in the seal fabric; when the gaskets no longer close off the hazardous waste surface from the atmosphere; or when the slotted membrane has more than 10 percent open area.
  - B) The owner or operator shall inspect the internal floating roof components as follows, except as provided in subsection (e)(3)(C) of this Section:
    - i) Visually inspect the internal floating roof components through openings on the fixed-roof (e.g., manholes and roof hatches) at least once every 12 months after initial fill, and
    - ii) Visually inspect the internal floating roof, primary seal, secondary seal (if one is in service), gaskets, slotted



membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least once every 10 years.

- C) As an alternative to performing the inspections specified in subsection (e)(3)(B) of this Section for an internal floating roof equipped with two continuous seals mounted one above the other, the owner or operator may visually inspect the internal floating roof, primary and secondary seals, gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least every five years.
- D) Prior to each inspection required by subsection (e)(3)(B) or (e)(3)(C) of this Section, the owner or operator shall notify the Agency in advance of each inspection to provide the Agency with the opportunity to have an observer present during the inspection. The owner or operator shall notify the Agency of the date and location of the inspection as follows:
  - i) Prior to each visual inspection of an internal floating roof in a tank that has been emptied and degassed, written notification must be prepared and sent by the owner or operator so that it is received by the Agency at least 30 calendar days before refilling the tank, except when an inspection is not planned, as provided for in subsection (e)(3)(D)(ii) of this Section.
  - ii) When a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the Agency as soon as possible, but no later than seven calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Agency at least seven calendar days before refilling the tank.
- E) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k) of this Section.
- F) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 724.989(b).

- 4) Safety devices, as defined in 35 Ill. Adm. Code 725.981, may be installed and operated as necessary on any tank complying with the requirements of this subsection (e).
- f) The owner or operator that controls air pollutant emissions from a tank using an external floating roof must meet the requirements specified in subsections (f)(1) through (f)(3) of this Section.
- 1) The owner or operator shall design the external floating roof in accordance with the following requirements:
    - A) The external floating roof must be designed to float on the liquid surface except when the floating roof must be supported by the leg supports.
    - B) The floating roof must be equipped with two continuous seals, one above the other, between the wall of the tank and the roof edge. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.
      - i) The primary seal must be a liquid-mounted seal or a metallic shoe seal, as defined in 35 Ill. Adm. Code 725.981. The total area of the gaps between the tank wall and the primary seal must not exceed 212 square centimeters (cm<sup>2</sup>) per meter (10.0 square inches (in<sup>2</sup>) per foot) of tank diameter, and the width of any portion of these gaps must not exceed 3.8 centimeters (cm) (1.5 in). If a metallic shoe seal is used for the primary seal, the metallic shoe seal must be designed so that one end extends into the liquid in the tank and the other end extends a vertical distance of at least 61 cm (24 in) above the liquid surface.
      - ii) The secondary seal must be mounted above the primary seal and cover the annular space between the floating roof and the wall of the tank. The total area of the gaps between the tank wall and the secondary seal must not exceed 21.2 cm<sup>2</sup> per meter (1.00 in<sup>2</sup> per foot) of tank diameter, and the width of any portion of these gaps must not exceed 1.3 cm (0.51 in).
    - C) The external floating roof must meet the following specifications:
      - i) Except for automatic bleeder vents (vacuum breaker

vents) and rim space vents, each opening in a noncontact external floating roof must provide a projection below the liquid surface.

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

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

one year or more, subsequent introduction of hazardous waste into the tank must be considered an initial operation for the purposes of subsections (f)(3)(A)(i) and (f)(3)(A)(ii) of this Section.

- iv) The owner or operator shall determine the total surface area of gaps in the primary seal and in the secondary seal individually using the procedure of subsection (f)(3)(D) of this Section.
  - v) In the event that the seal gap measurements do not conform to the specifications in subsection (f)(1)(B) of this Section, the owner or operator shall repair the defect in accordance with the requirements of subsection (k) of this Section.
  - vi) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 724.989(b).
- B) The owner or operator shall visually inspect the external floating roof in accordance with the following requirements:
- i) The floating roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, any of the following conditions: holes, tears, or other openings in the rim seal or seal fabric of the floating roof; a rim seal detached from the floating roof; all or a portion of the floating roof deck being submerged below the surface of the liquid in the tank; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.
  - ii) The owner or operator shall perform an initial inspection of the external floating roof and its closure devices on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in subsection (l) of this Section.
  - iii) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the

requirements of subsection (k) of this Section.

- iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 724.989(b).
- C) Prior to each inspection required by subsection (f)(3)(A) or (f)(3)(B) of this Section, the owner or operator shall notify the Agency in advance of each inspection to provide the Agency with the opportunity to have an observer present during the inspection. The owner or operator shall notify the Agency of the date and location of the inspection as follows:
- i) Prior to each inspection to measure external floating roof seal gaps as required under subsection (f)(3)(A) of this Section, written notification must be prepared and sent by the owner or operator so that it is received by the Agency at least 30 calendar days before the date the measurements are scheduled to be performed.
  - ii) Prior to each visual inspection of an external floating roof in a tank that has been emptied and degassed, written notification must be prepared and sent by the owner or operator so that it is received by the Agency at least 30 calendar days before refilling the tank, except when an inspection is not planned as provided for in subsection (f)(3)(C)(iii) of this Section.
  - iii) When a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the Agency as soon as possible, but no later than seven calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Agency at least seven calendar days before refilling the tank.
- D) Procedure for determining the total surface area of gaps in the primary seal and the secondary seal:
- i) The seal gap measurements must be performed at one or

more floating roof levels when the roof is floating off the roof supports.

- ii) Seal gaps, if any, must be measured around the entire perimeter of the floating roof in each place where a 0.32 cm (0.125 in) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the tank and measure the circumferential distance of each such location.
- iii) For a seal gap measured under subsection (f)(3) of this Section, the gap surface area must be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.
- iv) The total gap area must be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal diameter of the tank. These total gap areas for the primary seal and secondary seal are then compared to the respective standards for the seal type, as specified in subsection (f)(1)(B) of this Section.

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

- 4) Safety devices, as defined in 35 Ill. Adm. Code 725.981, may be installed and operated as necessary on any tank complying with the requirements of subsection (f) of this Section.
- g) The owner or operator that controls air pollutant emissions from a tank by venting the tank to a control device shall meet the requirements specified in subsections (g)(1) through (g)(3) of this Section.
  - 1) The tank must be covered by a fixed roof and vented directly through a closed-vent system to a control device in accordance with the following requirements:
    - A) The fixed roof and its closure devices must be designed to form a continuous barrier over the entire surface area of the liquid in the tank.

- B) Each opening in the fixed roof not vented to the control device must be equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices must be designed to operate ~~such~~so that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device must be designed to operate with no detectable organic emissions.
  - C) The fixed roof and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices must include the following: organic vapor permeability; the effects of any contact with the liquid and its vapor managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.
  - D) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 724.987.
- 2) Whenever a hazardous waste is in the tank, the fixed roof must be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except as follows:
- A) Venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times:
    - i) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure



the closure device in the closed position or reinstall the cover, as applicable, to the tank.

- ii) To remove accumulated sludge or other residues from the bottom of a tank.
- B) Opening of a safety device, as defined in 35 Ill. Adm. Code 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.
- 3) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the following procedures:
  - A) The fixed roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, any of the following: visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.
  - B) The closed-vent system and control device must be inspected and monitored by the owner or operator in accordance with the procedures specified in Section 724.987.
  - C) The owner or operator shall perform an initial inspection of the air emission control equipment on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in subsection (l) of this Section.
  - D) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k) of this Section.
  - E) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 724.989(b).
- h) The owner or operator that controls air pollutant emissions by using a pressure tank must meet the following requirements:
  - 1) The tank must be designed not to vent to the atmosphere as a result of compression of the vapor headspace in the tank during filling of the tank

to its design capacity.

- 2) All tank openings must be equipped with closure devices designed to operate with no detectable organic emissions as determined using the procedure specified in Section 724.983(d).
  - 3) Whenever a hazardous waste is in the tank, the tank must be operated as a closed-vent system that does not vent to the atmosphere, ~~except in the event that a safety device, as defined in 35 Ill. Adm. Code 725.981, is required to open to avoid an unsafe condition.~~ under either of the following two conditions:
    - A) The tank does not need to be operated as a closed-vent system at those times when the opening of a safety device, as defined in 35 Ill. Adm. Code 725.981, is required to avoid an unsafe condition.
    - B) The tank does not need to be operated as a closed-vent system at those times when the purging of inerts from the tank is required and the purge stream is routed to a closed-vent system and control device designed and operated in accordance with the requirements of Section 724.987.
- i) The owner or operator that controls air pollutant emissions by using an enclosure vented through a closed-vent system to an enclosed combustion control device ~~must~~ shall meet the requirements specified in subsections (i)(1) through (i)(4) of this Section.
- 1) The tank must be located inside an enclosure. The enclosure must be designed and operated in accordance with the criteria for a permanent total enclosure, as specified in “Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure, as specified in Section 5.0 to “Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure”, initially when the enclosure is first installed and, thereafter, annually.
  - 2) The enclosure must be vented through a closed-vent system to an enclosed combustion control device that is designed and operated in accordance with the standards for either a vapor incinerator, boiler, or

process heater specified in Section 724.987.

- 3) Safety devices, as defined in 35 Ill. Adm. Code 725.981, may be installed and operated as necessary on any enclosure, closed-vent system, or control device used to comply with the requirements of subsections (i)(1) and (i)(2) of this Section.
  - 4) The owner or operator shall inspect and monitor the closed-vent system and control device as specified in Section 724.987.
- j) The owner or operator shall transfer hazardous waste to a tank subject to this Section in accordance with the following requirements:
- 1) Transfer of hazardous waste, except as provided in subsection (j)(2) of this Section, to the tank from another tank subject to this Section or from a surface impoundment subject to Section 724.985 must be conducted using continuous hard-piping or another closed system that does not allow exposure of the hazardous waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the requirements of 40 CFR 63, subpart RR, "National Emission Standards for Individual Drain Systems", incorporated by reference in 35 Ill. Adm. Code 720.111.
  - 2) The requirements of subsection (j)(1) of this Section do not apply when transferring a hazardous waste to the tank under any of the following conditions:
    - A) The hazardous waste meets the average VO concentration conditions specified in Section 724.982(c)(1) at the point of waste origination.
    - B) The hazardous waste has been treated by an organic destruction or removal process to meet the requirements in Section 724.982(c)(2).
    - C) The hazardous waste meets the requirements of Section 724.982(c)(4).
- k) The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of subsection (c)(4), (e)(3), (f)(3), or (g)(3) of this Section, as follows:
- 1) The owner or operator shall make first efforts at repair of the defect no later than five calendar days after detection, and repair must be completed as soon as possible but no later than 45 calendar days after

detection except as provided in subsection (k)(2) of this Section.

- 2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the hazardous waste normally managed in the tank. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Repair of the defect must be completed before the process or unit resumes operation.
- 1) Following the initial inspection and monitoring of the cover, as required by the applicable provisions of this Subpart, subsequent inspection and monitoring may be performed at intervals longer than one year under the following special conditions:
    - 1) In the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions, then the owner or operator may designate a cover as an "unsafe to inspect and monitor cover" and comply with all of the following requirements:
      - A) Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required.
      - B) Develop and implement a written plan and schedule to inspect and monitor the cover, using the procedures specified in the applicable Section of this Subpart, as frequently as practicable during those times when a worker can safely access the cover.
    - 2) In the case when a tank is buried partially or entirely underground, an owner or operator is required to inspect and monitor, as required by the applicable provisions of this Section, only those portions of the tank cover and those connections to the tank (e.g., fill ports, access hatches, gauge wells, etc.) that are located on or above the ground surface.

(Source: Amended at 24 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 shall control air pollutant emissions from each container subject to this Section in accordance with the following requirements, as applicable to the container, except when the special provisions for waste stabilization processes specified in subsection (b)(2) of this Section apply to the container.
    - A) For a container having a design capacity greater than 0.1 m<sup>3</sup> (26 gal) and less than or equal to 0.46 m<sup>3</sup> (120 gal), the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c) of this Section.
    - B) For a container having a design capacity greater than 0.46 m<sup>3</sup> (120 gal) that is not in light material service, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c) of this Section.
    - C) For a container having a design capacity greater than 0.46 m<sup>3</sup> (120 gal) that is in light material service, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 2 standards specified in subsection (d) of this Section.
  - 2) When a container having a design capacity greater than 0.1 m<sup>3</sup> (26 gal) is used for treatment of a hazardous waste by a waste stabilization process, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 3 standards specified in subsection (e) of this Section at those times during the waste stabilization process when the hazardous waste in the container is exposed to the atmosphere.
- c) Container Level 1 standards.
- 1) A container using Container Level 1 controls is one of the following:
    - A) A container that meets the applicable ~~U.S. Department of Transportation (USDOT)~~ regulations on packaging hazardous materials for transportation, as specified in subsection (f) of this Section.
    - B) A container equipped with a cover and closure devices that form a continuous barrier over the container openings so that when the cover and closure devices are secured in the closed position there

are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container (e.g., a lid on a drum or a suitably secured tarp on a roll-off box) or may be an integral part of the container structural design (e.g., a “portable tank” or bulk cargo container equipped with a screw-type cap).

- C) An open-top container in which an organic-vapor suppressing barrier is placed on or over the hazardous waste in the container ~~such~~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 shall install all covers and closure devices for the container, as applicable to the container, and secure and maintain each closure device in the closed position except as follows:
    - A) Opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container as follows:
      - i) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.
      - ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as

applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.

- B) Opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container as follows:
- i) For the purpose of meeting the requirements of this Section, an empty container, as defined in 35 Ill. Adm. Code 721.107(b), may be open to the atmosphere at any time (i.e., covers and closure devices are not required to be secured in the closed position on an empty container).
  - ii) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container as defined in 35 Ill. Adm. Code 721.107(b), the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.
- C) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.
- D) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device ~~which~~ 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 ~~such~~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 shall inspect the containers and their covers and closure devices as follows:
- A) In the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied 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 shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. 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 incorporated by reference in 35 Ill. Adm. Code 722.Appendix A (USEPA Forms 8700-22 and 8700-22A), as required under Section 724.171. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (c)(4)(C) of this



## Section.

- B) In the case when a container used for managing hazardous waste remains at the facility for a period of one year or more, the owner or operator shall visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (c)(4)(C) of this Section.
  - C) When a defect is detected for the container, cover, or closure devices, the owner or operator shall make first efforts at repair of the defect no later than 24 hours after detection and repair must be completed as soon as possible but no later than five calendar days after detection. If repair of a defect cannot be completed within five calendar days, then the hazardous waste must be removed from the container and the container must not be used to manage hazardous waste until the defect is repaired.
- 5) The owner or operator shall maintain at the facility a copy of the procedure used to determine that containers with capacity of 0.46 m<sup>3</sup> (120 gal) or greater, which do not meet applicable DOT regulations, as specified in subsection (f) of this Section, are not managing hazardous waste in light material service.
- d) Container Level 2 standards.
- 1) A container using Container Level 2 controls is one of the following:
    - A) A container that meets the applicable ~~U.S. Department of Transportation (USDOT)~~ regulations on packaging hazardous materials for transportation as specified in subsection (f) of this Section.
    - B) A container that operates with no detectable organic emissions, as defined in 35 Ill. Adm. Code 725.981, and determined in accordance with the procedure specified in subsection (g) of this Section.
    - C) A container that has been demonstrated within the preceding 12 months to be vapor-tight by using 40 CFR 60, appendix A, Method 27, incorporated by reference in 35 Ill. Adm. Code

720.111, in accordance with the procedure specified in subsection (h) of this Section.

- 2) Transfer of hazardous waste in or out of a container using Container Level 2 controls must be conducted in such a manner as to minimize exposure of the hazardous waste to the atmosphere, to the extent practical, considering the physical properties of the hazardous waste and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that the USEPA considers to meet the requirements of this subsection (d)(2) include using any one of the following: a submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous waste is filled and subsequently purging the transfer line before removing it from the container opening.
- 3) Whenever a hazardous waste is in a container using Container Level 2 controls, the owner or operator shall install all covers and closure devices for the container, and secure and maintain each closure device in the closed position, except as follows:
  - A) Opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container as follows:
    - i) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.
    - ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.

- B) Opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container as follows:
- i) For the purpose of meeting the requirements of this Section, an empty container as defined in 35 Ill. Adm. Code 721.107(b) may be open to the atmosphere at any time (i.e., covers and closure devices are not required to be secured in the closed position on an empty container).
  - ii) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container as defined in 35 Ill. Adm. Code 721.107(b), the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.
- C) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.
- D) Opening of a spring-loaded, pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device ~~which~~ 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 ~~such~~ 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 shall inspect the containers and their covers and closure devices as follows:
- A) In the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied 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 shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. 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 incorporated by reference in the appendix to 40 CFR 262 (USEPA Forms 8700-22 and 8700-22A), as required under Section 724.171. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (d)(4)(C) of this Section.
  - B) In the case when a container used for managing hazardous waste remains at the facility for a period of one year or more, the owner or operator shall visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a

defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (d)(4)(C) of this Section.

- C) When a defect is detected for the container, cover, or closure devices, the owner or operator shall make first efforts at repair of the defect no later than 24 hours after detection, and repair must be completed as soon as possible but no later than five calendar days after detection. If repair of a defect cannot be completed within five calendar days, then the hazardous waste must be removed from the container and the container must not be used to manage hazardous waste until the defect is repaired.
- e) Container Level 3 standards.
- 1) A container using Container Level 3 controls is one of the following:
    - A) A container that is vented directly through a closed-vent system to a control device in accordance with the requirements of subsection (e)(2)(B) of this Section.
    - B) A container that is vented inside an enclosure which is exhausted through a closed-vent system to a control device in accordance with the requirements of subsections (e)(2)(A) and (e)(2)(B) of this Section.
  - 2) The owner or operator shall meet the following requirements, as applicable to the type of air emission control equipment selected by the owner or operator:
    - A) The container enclosure must be designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111. The enclosure may have permanent or temporary openings to allow worker access; passage of containers through the enclosure by conveyor or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" initially when the enclosure is first installed and, thereafter, annually.

- B) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 724.987.
- 3) Safety devices, as defined in 35 Ill. Adm. Code 725.981, may be installed and operated as necessary on any container, enclosure, closed-vent system, or control device used to comply with the requirements of subsection (e)(1) of this Section.
- 4) Owners and operators using Container Level 3 controls in accordance with the provisions of this Subpart shall inspect and monitor the closed-vent systems and control devices as specified in Section 724.987.
- 5) Owners and operators that use Container Level 3 controls in accordance with the provisions of this Subpart shall prepare and maintain the records specified in Section 724.989(d).
- 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 ~~U.S. Department of Transportation (USDOT)~~ regulations on packaging hazardous materials for transportation as follows:
- 1) The container meets the applicable requirements specified in 49 CFR 178, "Specifications for Packaging", or 49 CFR 179, "Specifications for Tank Cars", both incorporated by reference in 35 Ill. Adm. Code 720.111.
- 2) Hazardous waste is managed in the container in accordance with the applicable requirements specified in 49 CFR 107, Subpart B, "Exemptions"; 49 CFR 172, "Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response

Information, and Training Requirements”; 49 CFR 173, “Shippers--General Requirements for Shipments and Packages”; and 49 CFR 180, “Continuing Qualification and Maintenance of Packagings”, each incorporated by reference in 35 Ill. Adm. Code 720.111.

- 3) For the purpose of complying with this Subpart, no exceptions to the 49 CFR 178 or 179 regulations are allowed, except as provided for in subsection (f)(4) of this Section.
  - 4) For a lab pack that is managed in accordance with the requirements of 49 CFR 178, incorporated by reference in 35 Ill. Adm. Code 720.111, for the purpose of complying with this Subpart, an owner or operator may comply with the exceptions for combination packagings specified in 49 CFR 173.12(b).
- g) 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 Method 27 of 40 CFR 60, appendix A for the purpose of complying with subsection (d)(1)(C) of this Section.
- 1) The test must be performed in accordance with Method 27 of 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
  - 2) A pressure measurement device must be used that has a precision of  $\pm 2.5$  mm (0.098 in) water and that is capable of measuring above the pressure at which the container is to be tested for vapor tightness.

- 3) If the test results determined by 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 24 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

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

PART 725  
 INTERIM STATUS STANDARDS FOR OWNERS AND OPERATORS OF  
 HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL  
 FACILITIES

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725.322	Action Leakage Rate
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725.324	Containment System
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725.953	Standards: Compressors
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## SUBPART CC: AIR EMISSION STANDARDS FOR TANKS, SURFACE IMPOUNDMENTS, AND CONTAINERS

Section	
725.980	Applicability
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725.982	Schedule for Implementation of Air Emission Standards
725.983	Standards: General
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725.985	Standards: Tanks
725.986	Standards: Surface Impoundments
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725.988	Standards: Closed-Vent Systems and Control Devices
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#### SUBPART DD: CONTAINMENT BUILDINGS

##### Section

725.1100	Applicability
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##### Section

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725.Appendix C	EPA Interim Primary Drinking Water Standards
725.Appendix D	Tests for Significance
725.Appendix E	Examples of Potentially Incompatible Waste
725.Appendix F	Compounds With Henry's Law Constant Less Than 0.1 Y/X (at 25°C)

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

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

amended in R91-13 at 16 Ill. Reg. 9578, effective June 9, 1992; amended in R92-1 at 16 Ill. Reg. 17672, effective November 6, 1992; amended in R92-10 at 17 Ill. Reg. 5681, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20620, effective November 22, 1993; amended in R93-16 at 18 Ill. Reg. 6771, effective April 26, 1994; amended in R94-7 at 18 Ill. Reg. 12190, effective July 29, 1994; amended in R94-17 at 18 Ill. Reg. 17548, effective November 23, 1994; amended in R95-6 at 19 Ill. Reg. 9566, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 11078, effective August 1, 1996; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 369, effective December 16, 1997; amended in R98-12 at 22 Ill. Reg. 7620, effective April 15, 1998; amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. 17620, effective September 28, 1998; amended in R98-21/R99-2/R99-7 at 23 Ill. Reg. 1850, effective January 19, 1999; amended in R99-15 at 23 Ill. Reg. 9168, effective July 26, 1999; amended in R00-5 at 24 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

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

#### Section 725.980      Applicability

- a) The requirements of this Subpart apply to owners and operators of all facilities that treat, store, or dispose of hazardous waste in tanks, surface impoundments, or containers that are subject to Subpart I, J, or K of this Part, except as Section 725.101 and subsection (b) of this Section provide otherwise.
- b) The requirements of this Subpart do not apply to the following waste management units at the facility:
  - 1) A waste management unit that holds hazardous waste placed in the unit before December 6, 1996, and in which no hazardous waste is added to the unit on or after December 6, 1996.
  - 2) A container that has a design capacity less than or equal to 0.1 m<sup>3</sup> (3.5 ft<sup>3</sup> or 26.4 gal).
  - 3) A tank in which an owner or operator has stopped adding hazardous waste and the owner or operator has begun implementing or completed closure pursuant to an approved closure plan.
  - 4) A surface impoundment in which an owner or operator has stopped adding hazardous waste (except to implement an approved closure plan) and the owner or operator has begun implementing or completed closure pursuant to an approved closure plan.
  - 5) A waste management unit that is used solely for on-site treatment or storage of hazardous waste that is ~~generated~~ placed in the unit as the a

result of implementing remedial activities required pursuant to the Act or Board regulations or under the corrective action authorities of RCRA sections 3004(u), 3004(v) or 3008(h); CERCLA authorities; or similar federal or state authorities.

- 6) A waste management unit that is used solely for the management of radioactive mixed waste in accordance with all applicable regulations under the authority of the Atomic Energy Act (42 USC 2011 et seq.) and the Nuclear Waste Policy Act.
  - 7) A hazardous waste management unit that the owner or operator certifies is equipped with and operating air emission controls in accordance with the requirements of an applicable federal Clean Air Act regulation codified under 40 CFR 60, 61, or 63. For the purpose of complying with this subsection (b)(7), a tank for which the air emission control includes an enclosure, as opposed to a cover, must be in compliance with the enclosure and control device requirements of Section 725.985(i), except as provided in Section 725.983(c)(5).
  - 8) A tank that has a process vent, as defined in 35 Ill. Adm. Code 725.931.
- c) For the owner and operator of a facility subject to this Subpart that has received a final RCRA permit prior to December 6, 1996, the following requirements apply:
- 1) The requirements of 35 Ill. Adm. Code 724.Subpart CC must be incorporated into the permit when the permit is reissued, renewed, or modified in accordance with the requirements of 35 Ill. Adm. Code 703 and 705.
  - 2) Until the date when the permit is reissued, renewed, or modified in accordance with the requirements of 35 Ill. Adm. Code 703 and 705, the owner and operator is subject to the requirements of this Subpart.
- d) The requirements of this Subpart, except for the recordkeeping requirements specified in Section 725.990(i), are stayed for a tank or container used for the management of hazardous waste generated by organic peroxide manufacturing and its associated laboratory operations, when the owner or operator of the unit meets all of the following conditions:
- 1) The owner or operator identifies that the tank or container receives hazardous waste generated by an organic peroxide manufacturing process producing more than one functional family of organic peroxides or multiple organic peroxides within one functional family, that one or more of these organic peroxides could potentially undergo self-



accelerating thermal decomposition at or below ambient temperatures, and that organic peroxides are the predominant products manufactured by the process. For the purposes of this subsection, “organic peroxide” means an organic compound that contains the bivalent -O-O- structure and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

- 2) The owner or operator prepares documentation, in accordance with Section 725.990(i), explaining why an undue safety hazard would be created if air emission controls specified in Sections 725.985 through 725.988 are installed and operated on the tanks and containers used at the facility to manage the hazardous waste generated by the organic peroxide manufacturing process or processes meeting the conditions of subsection (d)(1) of this Section.
- 3) The owner or operator notifies the Agency in writing that hazardous waste generated by an organic peroxide manufacturing process or processes meeting the conditions of subsection (d)(1) of this Section are managed at the facility in tanks or containers meeting the conditions of subsection (d)(2) of this Section. The notification must state the name and address of the facility and be signed and dated by an authorized representative of the facility owner or operator.

(Source: Amended at 24 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### Section 725.984 Waste Determination Procedures

- a) Waste determination procedure for volatile organic (VO) concentration of a hazardous waste at the point of waste origination.
  - 1) An owner or operator shall determine the average VO concentration at the point of waste origination for each hazardous waste placed in a waste management unit exempted under the provisions of Section 725.983(c)(1) from using air emission controls in accordance with standards specified in Section 725.985 through Section 725.988, as applicable to the waste management unit.
    - A) An owner or operator shall make an initial determination of the average VO concentration of the waste stream before the first time any portion of the material in the hazardous waste stream is placed in a waste management unit exempted under the provisions of Section 725.983(c)(1) from using air emission controls. Thereafter, an owner or operator shall make an initial determination of the average VO concentration of the waste stream

for each averaging period that a hazardous waste is managed in the unit.

- B) An owner or operator shall perform a new waste determination whenever changes to the source generating the waste stream are reasonably likely to cause the average VO concentration of the hazardous waste to increase to a level that is equal to or greater than the VO concentration limits specified in Section 725.983(c)(1).
- 2) For a waste determination that is required by subsection (a)(1) of this Section, the average VO concentration of a hazardous waste at the point of waste origination must be determined using either direct measurement, as specified in subsection (a)(3) of this Section, or by knowledge of the waste, as specified in subsection (a)(4) of this Section.
- 3) Direct measurement to determine average VO concentration of a hazardous waste at the point of waste origination.
- A) Identification. The owner or operator shall identify and record the point of waste origination for the hazardous waste.
- B) Sampling. Samples of the hazardous waste stream must be collected at the point of waste origination in such a manner such that volatilization of organics contained in the waste and in the subsequent sample is minimized and an adequately representative sample is collected and maintained for analysis by the selected method.
- i) The averaging period to be used for determining the average VO concentration for the hazardous waste stream on a mass-weighted average basis must be designated and recorded. The averaging period can represent any time interval that the owner or operator determines is appropriate for the hazardous waste stream but must not exceed one year.
- ii) A sufficient number of samples, but no fewer than four samples, must be collected for a hazardous waste determination. All of the samples for a given waste determination must be collected within a one-hour period. The average of the four or more sample results constitutes a waste determination for the waste stream. One or more waste determinations may be required to represent the complete range of waste compositions and quantities that

occur during the entire averaging period due to normal variations in the operating conditions for the source or process generating the hazardous waste stream. Examples of such normal variations are seasonal variations in waste quantity or fluctuations in ambient temperature.

- iii) All samples must be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan must describe the procedure by which representative samples of the hazardous waste stream are collected ~~such~~so that a minimum loss of organics occurs throughout the sample collection and handling process, and by which sample integrity is maintained. A copy of the written sampling plan must be maintained on-site in the facility operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures in accordance with the requirements specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, or in Method 25D in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
  - iv) Sufficient information, as specified in the "site sampling plan" required under subsection (a)(3)(B)(iii) of this Section, must be prepared and recorded to document the waste quantity represented by the samples and, as applicable, the operating conditions for the source or process generating the hazardous waste represented by the samples.
- C) Analysis. Each collected sample must be prepared and analyzed in accordance with one or more of the methods listed in subsections (a)(3)(C)(i) through (a)(3)(C)(ix) of this Section, including the appropriate quality assurance and quality control (QA/QC) checks and use of target compounds for calibration. If Method 25D in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, is not used, then one or more methods should be chosen that are appropriate to ensure that the waste determination accounts for and reflects all organic compounds in the waste with Henry's law constant values at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) (which can also be expressed as  $1.8 \times 10^{-6}$  atmospheres/gram-mole/m<sup>3</sup>) at 25° C (77° F). Each of the

analytical methods listed in subsections (a)(3)(C)(ii) through (a)(3)(C)(vii) of this Section has an associated list of approved chemical compounds for which USEPA considers the method appropriate for measurement. If an owner or operator uses USEPA Method 624, 625, 1624, or 1625 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, to analyze one or more compounds that are not on that method's published list, the Alternative Test Procedure contained in 40 CFR 136.4 and 136.5, incorporated by reference in 35 Ill. Adm. Code 720.111, must be followed. If an owner or operator uses USEPA Method 8260 or 8270 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, to analyze one or more compounds that are not on that method's published list, the procedures in subsection (a)(3)(C)(viii) of this Section must be followed. At the owner's or operator's discretion, the ~~concentration of each individual chemical constituent~~ owner or operator may adjust test data measured in the waste by a method other than Method 25D may be corrected to the corresponding average VO concentration it value that would have had been obtained, had it the waste samples been measured-analyzed using Method 25D. To adjust these data, by multiplying the measured concentration of each individual chemical constituent contained in the waste is multiplied by the constituent-specific adjustment factor ( $f_{m25D}$ ), as specified in subsection (a)(4)(C) of this Section. If the owner or operator elects to adjust test data, the adjustment must be made to all individual chemical constituents with a Henry's law constant value greater than or equal to 0.1 Y/X at 25° C contained in the waste. Constituent-specific adjustment factors ( $f_{m25D}$ ) can be obtained by contacting the USEPA, Waste and Chemical Processes Group, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711.

- i) Method 25D in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
- ii) Method 624 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
- iii) Method 625 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111. Perform corrections to the compounds for which the analysis is being conducted based on the "accuracy as recovery" using the factors in Table 7 of the method.

- iv) Method 1624 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
- v) Method 1625 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
- vi) Method 8260 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111. Maintain a formal quality assurance program consistent with the requirements of Method 8260. The quality assurance program must include the elements set forth in subsection (a)(3)(F) of this Section.
- vii) Method 8270 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111. Maintain a formal quality assurance program consistent with the requirements of Method 8270. The quality assurance program must include the elements set forth in subsection (a)(3)(F) of this Section.
- viii) Any other USEPA standard method that has been validated in accordance with "Alternative Validation Procedure for USEPA Waste and Wastewater Methods", 40 CFR 63, appendix D, incorporated by reference in 35 Ill. Adm. Code 720.111. As an alternative, other USEPA standard methods may be validated by the procedure specified in subsection (a)(3)(C)(ix) of this Section.
- ix) Any other analysis method that has been validated in accordance with the procedures specified in Section 5.1 or Section 5.3, and the corresponding calculations in Section 6.1 or Section 6.3, of Method 301 in 40 CFR 63, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111. The data are acceptable if they meet the criteria specified in Section 6.1.5 or Section 6.3.3 of Method 301. If correction is required under Section 6.3.3 of Method 301, the data are acceptable if the correction factor is within the range 0.7 to 1.30. Other Sections of Method 301 are not required.

D) Calculations.

- i) The average VO concentration ( $\bar{C}$ ) on a mass-weighted basis must be calculated by using the results for all waste determinations conducted in accordance with subsections (a)(3)(B) and (a)(3)(C) of this Section and the following equation:

$$\bar{C} = \frac{1}{Q_T} \times \sum_{i=1}^n (Q_i \times C_i)$$

Where:

- $\bar{C}$  = Average VO concentration of the hazardous waste at the point of waste origination on a mass-weighted basis, in ppmw.
- $i$  = Individual waste determination "i" of the hazardous waste.
- $n$  = Total number of waste determinations of the hazardous waste conducted for the averaging period (not to exceed one year).
- $Q_i$  = Mass quantity of the hazardous waste stream represented by  $C_i$ , in kg/hr.
- $Q_T$  = Total mass quantity of the hazardous waste during the averaging period, in kg/hr.
- $C_i$  = Measured VO concentration of waste determination "i", as determined in accordance with subsection (a)(3)(C) of this Section (i.e., the average of the four or more samples specified in subsection (a)(3)(B)(ii) of this Section), in ppmw.
- ii) For the purpose of determining  $C_i$ , for individual waste samples analyzed in accordance with subsection (a)(3)(C) of this Section, the owner or operator shall account for VO concentrations determined to be below the limit of detection of the analytical method by using the VO concentration determined according to subsection (a)(3)(G) of this Section.

- E) Provided that the test method is appropriate for the waste as required under subsection (a)(3)(C) of this Section, the Agency must determine compliance based on the test method used by the owner or operator as recorded pursuant to Section 725.990(f)(1).
- F) The quality assurance program elements required under subsections (a)(3)(C)(vi) and (a)(3)(C)(vii) of this Section are as follows:
- i) Documentation of site-specific procedures to minimize the loss of compounds due to volatilization, biodegradation, reaction, or sorption during the sample collection, storage, preparation, introduction, and analysis steps.
  - ii) Measurement of the overall accuracy and precision of the specific procedures.

BOARD NOTE: Subsections (a)(3)(F)(i) and (a)(3)(F)(ii) are derived from 40 CFR 265.984(a)(3)(iii)(F)(1), (a)(3)(iii)(F)(2), (a)(3)(iii)(G)(1), and (a)(3)(iii)(G)(2), which the Board has codified here to comport with Illinois Administrative Code format requirements.

- G) VO concentrations below the limit of detection must be considered to be as follows:
- i) If Method 25D in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, is used for the analysis, the VO concentration must be considered to be one-half the blank value determined in the method at Section 4.4 of Method 25D in 40 CFR 60, appendix A.
  - ii) If any other analytical method is used, the VO concentration must be considered to be one-half the sum of the limits of detection established for each organic constituent in the waste that has a Henry's law constant value at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) (which can also be expressed as  $1.8 \times 10^{-6}$  atmospheres/gram-mole/m<sup>3</sup>) at 25° C.

BOARD NOTE: Subsections (a)(3)(G)(i) and (a)(3)(G)(ii) are derived from 40 CFR 265.984(a)(3)(iv)(A)(1) and (a)(3)(iv)(A)(2), which the Board has codified here to comport with Illinois Administrative Code format requirements.

- 4) Use of owner or operator knowledge to determine average VO concentration of a hazardous waste at the point of waste origination.
- A) Documentation must be prepared that presents the information used as the basis for the owner's or operator's knowledge of the hazardous waste stream's average VO concentration. Examples of information that may be used as the basis for knowledge include the following: material balances for the source or process generating the hazardous waste stream; constituent-specific chemical test data for the hazardous waste stream from previous testing that are still applicable to the current waste stream; previous test data for other locations managing the same type of waste stream; or other knowledge based on information included in manifests, shipping papers, or waste certification notices.
- B) If test data are used as the basis for knowledge, then the owner or operator shall document the test method, sampling protocol, and the means by which sampling variability and analytical variability are accounted for in the determination of the average VO concentration. For example, an owner or operator may use organic concentration test data for the hazardous waste stream that are validated in accordance with Method 301 in 40 CFR 63, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, as the basis for knowledge of the waste.
- C) An owner or operator using chemical constituent-specific concentration test data as the basis for knowledge of the hazardous waste may adjust the test data to the corresponding average VO concentration value ~~which~~that would have been obtained had the waste samples been analyzed using Method 25D in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111. To adjust these data, the measured concentration for each individual chemical constituent contained in the waste is multiplied by the appropriate constituent-specific adjustment factor ( $f_{m25D}$ ).
- D) In the event that the Agency and the owner or operator disagree on a determination of the average VO concentration for a hazardous waste stream using knowledge, then the results from a determination of average VO concentration using direct measurement, as specified in subsection (a)(3) of this Section, must be used to establish compliance with the applicable requirements of this Subpart. The Agency may perform or request that the owner or operator perform this determination



using direct measurement. The owner or operator may choose one or more appropriate methods to analyze each collected sample in accordance with the requirements of subsection (a)(3)(C) of this Section.

- b) Waste determination procedures for treated hazardous waste.
- 1) An owner or operator shall perform the applicable waste determination for each treated hazardous waste placed in a waste management unit exempted under the provisions of Section 725.983(c)(2)(A) through (c)(2)(F) from using air emission controls in accordance with the standards specified in Sections 725.985 through 725.988, as applicable to the waste management unit.
    - A) An owner or operator shall make an initial determination of the average VO concentration of the waste stream before the first time any portion of the material in the treated waste stream is placed in the waste management unit exempt under Section 725.983(c)(2), (c)(3), or (c)(4) from using air emission controls. Thereafter, an owner or operator shall update the information used for the waste determination at least once every 12 months following the date of the initial waste determination.
    - B) An owner or operator shall perform a new waste determination whenever changes to the process generating or treating the waste stream are reasonably likely to cause the average VO concentration of the hazardous waste to increase to such a level that the applicable treatment conditions specified in Section 725.983 (c)(2), (c)(3), or (c)(4) are not achieved.
  - 2) The owner or operator shall designate and record the specific provision in Section 725.983(c)(2) under which the waste determination is being performed. The waste determination for the treated hazardous waste must be performed using the applicable procedures specified in subsections (b)(3) through (b)(9) of this Section.
  - 3) Procedure to determine the average VO concentration of a hazardous waste at the point of waste treatment.
    - A) Identification. The owner or operator shall identify and record the point of waste treatment for the hazardous waste.
    - B) Sampling. Samples of the hazardous waste stream must be collected at the point of waste treatment in such a manner ~~such~~ that volatilization of organics contained in the waste and in the

subsequent sample is minimized and an adequately representative sample is collected and maintained for analysis by the selected method.

- i) The averaging period to be used for determining the average VO concentration for the hazardous waste stream on a mass-weighted average basis must be designated and recorded. The averaging period can represent any time interval that the owner or operator determines is appropriate for the hazardous waste stream but must not exceed one year.
- ii) A sufficient number of samples, but no fewer than four samples, must be collected and analyzed for a hazardous waste determination. All of the samples for a given waste determination must be collected within a one-hour period. The average of the four or more sample results constitutes a waste determination for the hazardous waste stream. One or more waste determinations may be required to represent the complete range of waste compositions and quantities that occur during the entire averaging period due to normal variations in the operating conditions for the ~~source or~~ process generating or treating the hazardous waste stream. Examples of such normal variations are seasonal variations in waste quantity or fluctuations in ambient temperature.
- iii) All samples must be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan must describe the procedure by which representative samples of the hazardous waste stream are collected ~~such~~ so that a minimum loss of organics occurs throughout the sample collection and handling process, and by which sample integrity is maintained. A copy of the written sampling plan must be maintained on-site in the facility operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures in accordance with the requirements specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," USEPA Publication No. SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, or in Method 25D in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.

- iv) Sufficient information, as specified in the “site sampling plan” required under subsection (a)(3)(B)(iii) of this Section, must be prepared and recorded to document the waste quantity represented by the samples and, as applicable, the operating conditions for the process treating the hazardous waste represented by the samples.
- C) Analysis. Each collected sample must be prepared and analyzed in accordance with one or more of the methods listed in subsections (b)(3)(C)(i) through (b)(3)(C)(ix) of this Section, including appropriate quality assurance and quality control (QA/QC) checks and use of target compounds for calibration. When the owner or operator is making a waste determination for a treated hazardous waste that is to be compared to an average VO concentration at the point of waste origination or the point of waste entry to the treatment system, to determine if the conditions of 35 Ill. Adm. Code 724.982(c)(2)(A) through (c)(2)(F) or Section 725.983(c)(2)(A) through (c)(2)(F) are met, then the waste samples ~~shall~~ must be prepared and analyzed using the same method or methods as were used in making the initial waste determinations at the point of waste origination or at the point of entry to the treatment system. If Method 25D in 40 CFR 60, appendix A is not used, then one or more methods should be chosen that are appropriate to ensure that the waste determination accounts for and reflects all organic compounds in the waste with Henry’s law constant values at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) [which can also be expressed as  $1.8 \times 10^{-6}$  atmospheres/gram-mole/m<sup>3</sup>] at 25 degrees Celsius. Each of the analytical methods listed in subsections (b)(3)(C)(ii) through (b)(3)(C)(vii) of this Section has an associated list of approved chemical compounds, for which USEPA considers the method appropriate for measurement. If an owner or operator uses USEPA Method 624, 625, 1624, or 1625 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, to analyze one or more compounds that are not on that method’s published list, the Alternative Test Procedure contained in 40 CFR 136.4 and 136.5, incorporated by reference in 35 Ill. Adm. Code 720.111, must be followed. If an owner or operator uses USEPA Method 8260 or 8270 in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, to analyze one or more compounds that are not on that method’s published list, the procedures in subsection (b)(3)(C)(viii) of this Section must be followed. At the owner’s or operator’s discretion, the

~~concentration of each individual chemical constituent owner or operator may adjust test data measured in the waste by a method other than Method 25D may be corrected to the corresponding average VO concentration it value that would have had been obtained, had it the waste samples been measured-analyzed using Method 25D. To adjust these data, by multiplying the measured concentration of each individual chemical constituent contained in the waste is multiplied by the constituent-specific adjustment factor ( $f_{m25D}$ ), as specified in subsection (a)(4)(C) of this Section. If the owner or operator elects to adjust test data, the adjustment must be made to all individual chemical constituents with a Henry's law constant value greater than or equal to 0.1 Y/X at 25° C contained in the waste. Constituent-specific adjustment factors ( $f_{m25D}$ ) can be obtained by contacting the USEPA, Waste and Chemical Processes Group, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711.~~

- i) Method 25D in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
- ii) Method 624 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
- iii) Method 625 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111. Perform corrections to the compounds for which the analysis is being conducted based on the “accuracy as recovery” using the factors in Table 7 of the method.
- iv) Method 1624 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
- v) Method 1625 in 40 CFR 136, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
- vi) Method 8260 in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111. Maintain a formal quality assurance program consistent with the requirements of Method 8260. The quality assurance program must include the elements set forth in subsection (b)(3)(E) of this Section.
- vii) Method 8270 in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, USEPA Publication

SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111. Maintain a formal quality assurance program consistent with the requirements of Method 8270. The quality assurance program must include the elements set forth in subsection (b)(3)(E) of this Section.

- viii) Any other USEPA standard method that has been validated in accordance with "Alternative Validation Procedure for EPA Waste and Wastewater Methods", 40 CFR 63, appendix D, incorporated by reference in 35 Ill. Adm. Code 720.111. As an alternative, other USEPA standard methods may be validated by the procedure specified in subsection (b)(3)(C)(ix) of this Section.
  - ix) Any other analysis method that has been validated in accordance with the procedures specified in Section 5.1 or Section 5.3, and the corresponding calculations in Section 6.1 or Section 6.3, of Method 301 in 40 CFR 63, appendix A. The data are acceptable if they meet the criteria specified in Section 6.1.5 or Section 6.3.3 of Method 301. If correction is required under Section 6.3.3 of Method 301, the data are acceptable if the correction factor is within the range 0.7 to 1.30. Other Sections of Method 301 are not required.
- D) Calculations. The average VO concentration ( $\bar{C}$ ) on a mass-weighted basis must be calculated by using the results for all samples analyzed in accordance with subsection (b)(3)(C) of this Section and the following equation:

$$\bar{C} = \frac{1}{Q_T} \times \sum_{i=1}^n (Q_i \times C_i)$$

Where:

$\bar{C}$  = Average VO concentration of the hazardous waste at the point of waste treatment on a mass-weighted basis, in ppmw.

i = Individual determination "i" of the hazardous waste.

n = Total number of waste determinations of the

hazardous waste collected for the averaging period (not to exceed 1 year).

$Q_i$  = Mass quantity of the hazardous waste stream represented by  $C_i$ , in kg/hr.

$Q_T$  = Total mass quantity of hazardous waste during the averaging period, in kg/hr.

$C_i$  = Measured VO concentration of waste determinations "i", as determined in accordance with the requirements of subsection (b)(3)(C) of this Section (i.e., the average of the four or more samples specified in subsection (b)(3)(B)(ii) of this Section), in ppmw.

- E) Provided that the test method is appropriate for the waste as required under subsection (b)(3)(C) of this Section, compliance ~~shall~~ must be determined based on the test method used by the owner or operator as recorded pursuant to Section 725.990(f)(1).
- 4) Procedure to determine the exit concentration limit ( $C_e$ ) for a treated hazardous waste.
- A) The point of waste origination for each hazardous waste treated by the process at the same time must be identified.
- B) If a single hazardous waste stream is identified in subsection (b)(4)(A) of this Section, then the exit concentration limit ( $C_e$ ) must be 500 ppmw.
- C) If more than one hazardous waste stream is identified in subsection (b)(4)(A) of this Section, then the average VO concentration of each hazardous waste stream at the point of waste origination must be determined in accordance with the requirements of subsection (a) of this Section. The exit concentration limit ( $C_e$ ) must be calculated by using the results determined for each individual hazardous waste stream and the following equation:

$$C_t = \frac{\sum_{x=1}^m (Q_x \times \bar{C}_x) + \sum_{y=1}^n (Q_y \times 500 \text{ppmw})}{\sum_{x=1}^m Q_x + \sum_{y=1}^n Q_y}$$

Where:

- $C_t$  = Exit concentration limit for treated hazardous waste, in ppmw.
- $x$  = Individual hazardous waste stream “x” that has an average VO concentration less than 500 ppmw at the point of waste origination, as determined in accordance with the requirements of subsection (a) of this Section.
- $y$  = Individual hazardous waste stream “y” that has an average VO concentration equal to or greater than 500 ppmw at the point of waste origination, as determined in accordance with the requirements of subsection (a) of this Section.
- $m$  = Total number of “x” hazardous waste streams treated by process.
- $n$  = Total number of “y” hazardous waste streams treated by process.
- $Q_x$  = Annual mass quantity of hazardous waste stream “x”, in kg/yr.
- $Q_y$  = Annual mass quantity of hazardous waste stream “y”, in kg/yr.
- $\bar{C}_x$  = Average VO concentration of hazardous waste stream “x” at the point of waste origination, as determined in accordance with the requirements of subsection (a) of this Section, in ppmw.

- 5) Procedure to determine the organic reduction efficiency (R) for a treated hazardous waste.

- A) The organic reduction efficiency (R) for a treatment process must be determined based on results for a minimum of three consecutive runs.
- B) All hazardous waste streams entering the process and all hazardous waste streams exiting the treatment process must be identified. The owner or operator shall prepare a sampling plan for measuring these streams that accurately reflects the retention time of the hazardous waste in the process.
- C) For each run, information must be determined for each hazardous waste stream identified in subsection (b)(5)(B) of this Section, using the following procedures:
- i) The mass quantity of each hazardous waste stream entering the process ( $Q_b$ ) and the mass quantity of each hazardous waste stream exiting the process ( $Q_a$ ) must be determined.
  - ii) The average VO concentration at the point of waste origination of each hazardous waste stream entering the process ( $C_b$ ) during the run must be determined in accordance with the requirements of subsections (a)(3) of this Section. The average VO concentration at the point of waste treatment of each hazardous waste stream exiting the process ( $C_a$ ) during the run must be determined in accordance with the requirements of subsection (b)(3) of this Section.
- D) The waste volatile organic mass flow entering the process ( $E_b$ ) and the waste volatile organic mass flow exiting the process ( $E_a$ ) must be calculated by using the results determined in accordance with subsection (b)(5)(C) of this Section and the following equations:

$$E_b = \frac{1}{10^6} \sum_{j=1}^m (Q_{bj} \times \overline{C_{bj}})$$

$$E_a = \frac{1}{10^6} \sum_{j=1}^m (Q_{aj} \times \overline{C_{aj}})$$



Where:

$E_a$  = Waste volatile organic mass flow exiting the process, in kg/hr.

$E_b$  = Waste volatile organic mass flow entering the process, in kg/hr.

$m$  = Total number of runs (at least 3)

$j$  = Individual run "j"

$Q_{bj}$  = Mass quantity of hazardous waste entering the process during run "j", in kg/hr.

$Q_{aj}$  = Average mass quantity of waste exiting the process during run "j", in kg/hr.

$\overline{C_{aj}}$  = Average VO concentration of hazardous waste exiting the process during run "j", as determined in accordance with the requirements of subsection (b)(3) of this Section, in ppmw.

$\overline{C_{bj}}$  = Average VO concentration of hazardous waste entering the process during run "j", as determined in accordance with the requirements of subsection 725.984 (a)(3) of this Section, in ppmw.

- E) The organic reduction efficiency of the process must be calculated by using the results determined in accordance with subsection (b)(5)(D) of this Section and the following equation:

$$R = \frac{E_b - E_a}{E_b} \times 100\%$$

Where:

$R$  = Organic reduction efficiency, in percent.

$E_b$  = Waste volatile organic mass flow entering the process as determined in accordance with the requirements of subsection (b)(5)(D) of this Section, in kg/hr.

$E_a$  = Waste volatile organic mass flow exiting the process as determined in accordance with the requirements of subsection (b)(5)(D) of this Section, in kg/hr.

- 6) Procedure to determine the organic biodegradation efficiency ( $R_{bio}$ ) for a treated hazardous waste.
- A) The fraction of organics biodegraded ( $F_{bio}$ ) must be determined using the procedure specified in 40 CFR 63, Appendix C, incorporated by reference in 35 Ill. Adm. Code 720.111.
- B) The organic biodegradation efficiency ( $R_{bio}$ ) must be calculated by using the following equation:

$$R_{bio} = F_{bio} \times 100\%$$

Where

$R_{bio}$  = Organic biodegradation efficiency, in percent.

$F_{bio}$  = Fraction of organic biodegraded, as determined in accordance with the requirements of subsection (b)(6)(A) of this Section.

- 7) Procedure to determine the required organic mass removal rate (RMR) for a treated hazardous waste.
- A) All of the hazardous waste streams entering the treatment process must be identified.
- B) The average VO concentration of the hazardous waste stream at the point of waste origination must be determined in accordance with the requirements of subsection (a) of this Section.
- C) For each individual hazardous waste stream that has an average volatile organic concentration equal to or greater than 500 ppmw at the point of waste origination, the average volumetric flow rate of hazardous waste and the density of the hazardous waste stream at the point of waste origination must be determined.
- D) The required organic mass removal rate (RMR) for the hazardous waste must be calculated by using the average VO concentration,

average volumetric flow rate, and density determined for each individual hazardous waste stream, and the following equation:

$$\text{RMR} = \sum_{y=1}^n \left[ V_y \times k_y \times \frac{(\bar{C}_y - 500\text{ppmw})}{10^6} \right]$$

Where:

RMR = Required organic mass removal rate, in kg/hr.

y = Individual hazardous waste stream “y” that has an average volatile organic (VO) concentration equal to or greater than 500 ppmw at the point of waste origination, as determined in accordance with the requirements of subsection (a) of this Section.

n = Total number of “y” hazardous waste streams treated by process.

$V_y$  = Average volumetric flow rate of hazardous waste stream “y” at the point of waste origination, in m<sup>3</sup>/hr.

$k_y$  = Density of hazardous waste stream “y”, in kg/m<sup>3</sup>

$\bar{C}_y$  = Average VO concentration of hazardous waste stream “y” at the point of waste origination, as determined in accordance with the requirements of subsection (a) of this Section, in ppmw.

- 8) Procedure to determine the actual organic mass removal rate (MR) for a treated hazardous waste.
  - A) The actual organic mass removal rate (MR) must be determined based on results for a minimum of three consecutive runs. The sampling time for each run must be one hour.
  - B) The waste volatile organic mass flow entering the process ( $E_b$ ) and the waste volatile organic mass flow exiting the process ( $E_a$ ) must be determined in accordance with the requirements of subsection (b)(5)(D) of this Section.
  - C) The actual organic mass removal rate (MR) must be calculated by using the mass flow rate determined in accordance with the

requirements of subsection (b)(8)(B) of this Section and the following equation:

$$MR = E_b - E_a$$

Where:

MR = Actual organic mass removal rate, in kg/hr.

$E_b$  = Waste volatile organic mass flow entering the process, as determined in accordance with the requirements of subsection (b)(5)(D) of this Section, in kg/hr.

$E_a$  = Waste volatile organic mass flow exiting the process, as determined in accordance with the requirements of subsection (b)(5)(D) of this Section, in kg/hr.

- 9) Procedure to determine the actual organic mass biodegradation rate ( $MR_{bio}$ ) for a treated hazardous waste.
- A) The actual organic mass biodegradation rate ( $MR_{bio}$ ) must be determined based on results for a minimum of three consecutive runs. The sampling time for each run must be one hour.
  - B) The waste organic mass flow entering the process ( $E_b$ ) must be determined in accordance with the requirements of subsection (b)(5)(D) of this Section.
  - C) The fraction of organic biodegraded ( $F_{bio}$ ) must be determined using the procedure specified in 40 CFR 63, Appendix C, incorporated by reference in 35 Ill. Adm. Code 720.111.
  - D) The actual organic mass biodegradation rate ( $MR_{bio}$ ) must be calculated by using the mass flow rates and fraction of organic biodegraded, as determined in accordance with the requirements of subsections (b)(9)(B) and (b)(9)(C) of this Section, respectively, and the following equation:

$$MR_{bio} = E_b \times F_{bio}$$

Where:

$MR_{\text{bio}}$  = Actual organic mass biodegradation rate, in kg/hr.

$E_b$  = Waste organic mass flow entering the process, as determined in accordance with the requirements of subsection (b)(5)(D) of this Section, in kg/hr.

$F_{\text{bio}}$  = Fraction of organic biodegraded, as determined in accordance with the requirements of subsection (b)(9)(C) of this Section.

- c) Procedure to determine the maximum organic vapor pressure of a hazardous waste in a tank.
- 1) An owner or operator shall determine the maximum organic vapor pressure for each hazardous waste placed in a tank using Tank Level 1 controls in accordance with standards specified in Section 725.985(c).
  - 2) An owner or operator shall use either direct measurement, as specified in subsection (c)(3) of this Section, or knowledge of the waste, as specified by subsection (c)(4) of this Section, to determine the maximum organic vapor pressure that is representative of the hazardous waste composition stored or treated in the tank.
  - 3) Direct measurement to determine the maximum organic vapor pressure of a hazardous waste.
    - A) Sampling. A sufficient number of samples must be collected to be representative of the waste contained in the tank. All samples must be conducted and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan must describe the procedure by which representative samples of the hazardous waste are collected ~~such so~~ that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan must be maintained on-site in the facility operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures in accordance with the requirements specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA Publication No. SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, or in Method 25D in 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.

- B) Analysis. Any appropriate one of the following methods may be used to analyze the samples and compute the maximum organic vapor pressure of the hazardous waste:
- i) Method 25E in 40 CFR 60, Appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111;
  - ii) Methods described in American Petroleum Institute Publication 2517, incorporated by reference in 35 Ill. Adm. Code 720.111;
  - iii) Methods obtained from standard reference texts;
  - iv) ASTM Method D 2879-92, incorporated by reference in 35 Ill. Adm. Code 720.111; or
  - v) Any other method approved by the Agency.
- 4) Use of knowledge to determine the maximum organic vapor pressure of the hazardous waste. Documentation must be prepared and recorded that presents the information used as the basis for the owner's or operator's knowledge that the maximum organic vapor pressure of the hazardous waste is less than the maximum vapor pressure limit listed in Section 725.985(b)(1)(A) for the applicable tank design capacity category. An example of information that may be used is documentation that the hazardous waste is generated by a process for which at other locations it previously has been determined by direct measurement that the waste maximum organic vapor pressure is less than the maximum vapor pressure limit for the appropriate tank design capacity category.
- d) Procedure for determining no detectable organic emissions for the purpose of complying with this Subpart:
- 1) The test must be conducted in accordance with the procedures specified in Method 21 of 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111. Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the cover and associated closure devices must be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to any of the following: the interface of the cover and its foundation mounting, the periphery of any opening on the cover and its associated closure device, and the sealing seat interface on a spring-loaded pressure relief valve.
  - 2) The test must be performed when the unit contains a hazardous waste

having an organic concentration representative of the range of concentrations for the hazardous waste expected to be managed in the unit. During the test, the cover and closure devices must be secured in the closed position.

- 3) The detection instrument must meet the performance criteria of Method 21 of 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111, except the instrument response factor criteria in Section 3.1.2(a) of Method 21 must be for the average composition of the organic constituents in the hazardous waste placed in the waste management unit, not for each individual organic constituent.
- 4) The detection instrument must be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
- 5) Calibration gases must be as follows:
  - A) Zero air (less than 10 ppmv hydrocarbon in air), and
  - B) A mixture of methane or n-hexane in air at a concentration of approximately, but less than, 10,000 ppmv methane or n-hexane.
- 6) The background level must be determined according to the procedures in Method 21 of 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
- 7) Each potential leak interface must be checked by traversing the instrument probe around the potential leak interface as close to the interface as possible, as described in Method 21 of 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111. In the case when the configuration of the cover or closure device prevents a complete traverse of the interface, all accessible portions of the interface must be sampled. In the case when the configuration of the closure device prevents any sampling at the interface and the device is equipped with an enclosed extension or horn (e.g., some pressure relief devices), the instrument probe inlet must be placed at approximately the center of the exhaust area to the atmosphere.
- 8) The arithmetic difference between the maximum organic concentration indicated by the instrument and the background level must be compared with the value of 500 ppmv except when monitoring a seal around a rotating shaft that passes through a cover opening, in which case the comparison must be as specified in subsection (d)(9) of this Section. If the difference is less than 500 ppmv, then the potential leak interface is

determined to operate with no detectable organic emissions.

- 9) For the seals around a rotating shaft that passes through a cover opening, the arithmetic difference between the maximum organic concentration indicated by the instrument and the background level must be compared with the value of 10,000 ppmw. If the difference is less than 10,000 ppmw, then the potential leak interface is determined to operate with no detectable organic emissions.

(Source: Amended at 24 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 725.985 Standards: Tanks

- a) The provisions of this Section apply to the control of air pollutant emissions from tanks for which Section 725.983(b) references the use of this Section for such air emission control.
- b) The owner or operator shall control air pollutant emissions from each tank subject to this Section in accordance with the following requirements, as applicable:
- 1) For a tank that manages hazardous waste which meets all of the conditions specified in subsections (b)(1)(A) through (b)(1)(C) of this Section, the owner or operator shall control air pollutant emissions from the tank in accordance with the Tank Level 1 controls specified in subsection (c) of this Section or the Tank Level 2 controls specified in subsection (d) of this Section.
- A) The hazardous waste in the tank has a maximum organic vapor pressure that is less than the maximum organic vapor pressure limit for the tank's design capacity category, as follows:
- i) For a tank design capacity equal to or greater than 151 m<sup>3</sup> (5333 ft<sup>3</sup> or 39,887 gal), the maximum organic vapor pressure limit for the tank is 5.2 kPa (0.75 psia or 39 mm Hg);
- ii) For a tank design capacity equal to or greater than 75 m<sup>3</sup> (2649 ft<sup>3</sup> or 19,810 gal) but less than 151 m<sup>3</sup> (5333 ft<sup>3</sup> or 39,887 gal), the maximum organic vapor pressure limit for the tank is 27.6 kPa (4.0 psia or 207 mm Hg); or
- iii) For a tank design capacity less than 75 m<sup>3</sup> (2649 ft<sup>3</sup> or 19,810 gal), the maximum organic vapor pressure limit for the tank is 76.6 kPa (11.1 psia or 574 mm Hg).



- B) The hazardous waste in the tank is not heated by the owner or operator to a temperature that is greater than the temperature at which the maximum organic vapor pressure of the hazardous waste is determined for the purpose of complying with subsection (b)(1)(A) of this Section.
  - C) The hazardous waste in the tank is not treated by the owner or operator using a waste stabilization process, as defined in Section 725.981.
- 2) For a tank that manages hazardous waste that does not meet all of the conditions specified in subsections (b)(1)(A) through (b)(1)(C) of this Section, the owner or operator shall control air pollutant emissions from the tank by using Tank Level 2 controls in accordance with the requirements of subsection (d) of this Section. Examples of tanks required to use Tank Level 2 controls include the following: a tank used for a waste stabilization process and a tank for which the hazardous waste in the tank has a maximum organic vapor pressure that is equal to or greater than the maximum organic vapor pressure limit for the tank's design capacity category, as specified in subsection (b)(1)(A) of this Section.
- c) Owners and operators controlling air pollutant emissions from a tank using Tank Level 1 controls shall meet the requirements specified in subsections (c)(1) through (c)(4) of this Section:
- 1) The owner or operator shall determine the maximum organic vapor pressure for a hazardous waste to be managed in the tank using Tank Level 1 controls before the first time the hazardous waste is placed in the tank. The maximum organic vapor pressure must be determined using the procedures specified in Section 725.984(c). Thereafter, the owner or operator shall perform a new determination whenever changes to the hazardous waste managed in the tank could potentially cause the maximum organic vapor pressure to increase to a level that is equal to or greater than the maximum organic vapor pressure limit for the tank design capacity category specified in subsection (b)(1)(A) of this Section, as applicable to the tank.
  - 2) The tank must be equipped with a fixed roof designed to meet the following specifications:
    - A) The fixed roof and its closure devices must be designed to form a continuous barrier over the entire surface area of the hazardous waste in the tank. The fixed roof may be a separate cover

installed on the tank (e.g., a removable cover mounted on an open-top tank) or may be an integral part of the tank structural design (e.g., a horizontal cylindrical tank equipped with a hatch).

- B) The fixed roof must be installed in such a manner ~~such~~ that there are no visible cracks, holes, gaps, or other open spaces between roof section joints or between the interface of the roof edge and the tank wall.
- C) Either of the following must be true of each opening in the fixed roof and of any manifold system associated with the fixed roof must be either:
  - i) The opening or manifold system is equipped with a closure device designed to operate ~~such~~ so that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device; or
  - ii) The opening or manifold system is connected by a closed-vent system that is vented to a control device. The control device must remove or destroy organics in the vent stream, and it must be operating whenever hazardous waste is managed in the tank, except as provided for in subsection (c)(2)(E).
- D) The fixed roof and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and which will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices must include the following: organic vapor permeability; the effects of any contact with the hazardous waste or its vapors managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.
- E) The control device operated pursuant to subsection (c)(2)(C) of this Section needs not remove or destroy organics in the vent stream under the following conditions:
  - i) During periods when it is necessary to provide access to the tank for performing the activities of subsection

(c)(2)(E)(ii) of this Section, venting of the vapor headspace underneath the fixed roof to the control device is not required, opening of closure devices is allowed, and removal of the fixed roof is allowed. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, and resume operation of the control device; and

- ii) During periods of routine inspection, maintenance, or other activities needed for normal operations, and for the removal of accumulated sludge or other residues from the bottom of the tank.

BOARD NOTE: Subsections (c)(2)(E)(i) and (c)(2)(E)(ii) are derived from 40 CFR 265.985(c)(2)(iii)(B)(1) and (c)(2)(iii)(B)(2), which the Board has codified here to comport with Illinois Administrative Code format requirements.

- 3) Whenever a hazardous waste is in the tank, the fixed roof must be installed with each closure device secured in the closed position, except as follows:
  - A) Opening of closure devices or removal of the fixed roof is allowed at the following times:
    - i) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.
    - ii) To remove accumulated sludge or other residues from the bottom of tank.
  - B) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device ~~which~~ that vents to the atmosphere is allowed during normal operations for the purpose of maintaining the tank internal pressure in accordance with the tank design specifications. The device must be designed to operate with no detectable organic emissions when

the device is secured in the closed position. The settings at which the device opens must be established such so that the device remains in the closed position whenever the tank internal pressure is within the internal pressure operating range determined by the owner or operator based on the tank manufacturer recommendations; applicable regulations; fire protection and prevention codes; standard engineering codes and practices; or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the tank internal pressure exceeds the internal pressure operating range for the tank as a result of loading operations or diurnal ambient temperature fluctuations.

- C) Opening of a safety device, as defined in Section 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.
- 4) The owner or operator shall inspect the air emission control equipment in accordance with the following requirements.
  - A) The fixed roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.
  - B) The owner or operator shall perform an initial inspection of the fixed roof and its closure devices on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year, except under the special conditions provided for in subsection (l) of this Section.
  - C) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k) of this Section.
  - D) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).
- d) Owners and operators controlling air pollutant emissions from a tank using Tank Level 2 controls shall use one of the following tanks:

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

liquid surface.

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

inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, the following: when the internal floating roof is not floating on the surface of the liquid inside the tank; when liquid has accumulated on top of the internal floating roof; when any portion of the roof seals have detached from the roof rim; when holes, tears, or other openings are visible in the seal fabric; when the gaskets no longer close off the hazardous waste surface from the atmosphere; or when the slotted membrane has more than 10 percent open area.

- B) The owner or operator shall inspect the internal floating roof components as follows, except as provided in subsection (e)(3)(C) of this Section:
  - i) Visually inspect the internal floating roof components through openings on the fixed roof (e.g., manholes and roof hatches) at least once every 12 months after initial fill, and
  - ii) Visually inspect the internal floating roof, primary seal, secondary seal (if one is in service), gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least once every 10 years.
- C) As an alternative to performing the inspections specified in subsection (e)(3)(B) of this Section for an internal floating roof equipped with two continuous seals mounted one above the other, the owner or operator may visually inspect the internal floating roof, primary and secondary seals, gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least every five years.
- D) Prior to each inspection required by subsection (e)(3)(B) or (e)(3)(C) of this Section, the owner or operator shall notify the Agency in advance of each inspection to provide the Agency with the opportunity to have an observer present during the inspection. The owner or operator shall notify the Agency of the date and location of the inspection as follows:
  - i) Prior to each visual inspection of an internal floating roof in a tank that has been emptied and degassed, written notification must be prepared and sent by the owner or operator so that it is received by the Agency at least 30 calendar days before refilling the tank, except when an

total area of the gaps between the tank wall and the primary seal must not exceed 212 square centimeters ( $\text{cm}^2$ ) per meter (10.0  $\text{in}^2$  per foot) of tank diameter, and the width of any portion of these gaps must not exceed 3.8 centimeters (cm) (1.5 inches). If a metallic shoe seal is used for the primary seal, the metallic shoe seal must be designed so that one end extends into the liquid in the tank and the other end extends a vertical distance of at least 61 centimeters (24 inches) above the liquid surface.

- ii) The secondary seal must be mounted above the primary seal and cover the annular space between the floating roof and the wall of the tank. The total area of the gaps between the tank wall and the secondary seal must not exceed 21.2  $\text{cm}^2$  per meter (1.0  $\text{in}^2$  per foot) of tank diameter, and the width of any portion of these gaps must not exceed 1.3 cm (0.5 inch).
- C) The external floating roof must meet the following specifications:
- i) Except for automatic bleeder vents (vacuum breaker vents) and rim space vents, each opening in a noncontact external floating roof must provide a projection below the liquid surface.
  - ii) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof must be equipped with a gasketed cover, seal, or lid.
  - iii) Each access hatch and each gauge float well must be equipped with a cover designed to be bolted or fastened when the cover is secured in the closed position.
  - iv) Each automatic bleeder vent and each rim space vent must be equipped with a gasket.
  - v) Each roof drain that empties into the liquid managed in the tank must be equipped with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.
  - vi) Each unslotted and slotted guide pole well must be equipped with a gasketed sliding cover or a flexible fabric sleeve seal.



- vii) Each unslotted guide pole must be equipped with a gasketed cap on the end of the pole.
  - viii) Each slotted guide pole must be equipped with a gasketed float or other device ~~which~~that closes off the liquid surface from the atmosphere.
  - ix) Each gauge hatch and each sample well must be equipped with a gasketed cover.
- 2) The owner or operator shall operate the tank in accordance with the following requirements:
- A) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling must be continuous and must be completed as soon as practical.
  - B) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof must be secured and maintained in a closed position at all times except when the closure device must be open for access.
  - C) Covers on each access hatch and each gauge float well must be bolted or fastened when secured in the closed position.
  - D) Automatic bleeder vents must be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.
  - E) Rim space vents must be set to open only at those times that the roof is being floated off the roof leg supports or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.
  - F) The cap on the end of each unslotted guide pole must be secured in the closed position at all times except when measuring the level or collecting samples of the liquid in the tank.
  - G) The cover on each gauge hatch or sample well must be secured in the closed position at all times except when the hatch or well must be opened for access.
  - H) Both the primary seal and the secondary seal must completely cover the annular space between the external floating roof and the wall of the tank in a continuous fashion except during

inspections.

- 3) The owner or operator shall inspect the external floating roof in accordance with the procedures specified as follows:
  - A) The owner or operator shall measure the external floating roof seal gaps in accordance with the following requirements:
    - i) The owner or operator shall perform measurements of gaps between the tank wall and the primary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every five years.
    - ii) The owner or operator shall perform measurements of gaps between the tank wall and the secondary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every year.
    - iii) If a tank ceases to hold hazardous waste for a period of one year or more, subsequent introduction of hazardous waste into the tank must be considered an initial operation for the purposes of subsections (f)(3)(A)(i) and (f)(3)(A)(ii) of this Section.
    - iv) The owner or operator shall determine the total surface area of gaps in the primary seal and in the secondary seal individually using the procedure set forth in subsection (f)(4)(D) of this Section.
    - v) In the event that the seal gap measurements do not conform to the specifications in subsection (f)(1)(B) of this Section, the owner or operator must repair the defect in accordance with the requirements of subsection (k) of this Section.
    - vi) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).
  - B) The owner or operator shall visually inspect the external floating roof in accordance with the following requirements:
    - i) The floating roof and its closure devices must be visually

inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to any of the following: holes, tears, or other openings in the rim seal or seal fabric of the floating roof; a rim seal detached from the floating roof; all or a portion of the floating roof deck being submerged below the surface of the liquid in the tank; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

- ii) The owner or operator shall perform an initial inspection of the external floating roof and its closure devices on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in subsection (l) of this Section.
  - iii) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k) of this Section.
  - iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).
- C) Prior to each inspection required by subsection (f)(3)(A) or (f)(3)(B) of this Section, the owner or operator shall notify the Agency in advance of each inspection to provide the Agency with the opportunity to have an observer present during the inspection. The owner or operator shall notify the Agency of the date and location of the inspection as follows:
- i) Prior to each inspection to measure external floating roof seal gaps as required under subsection (f)(3)(A) of this Section, written notification must be prepared and sent by the owner or operator so that it is received by the Agency at least 30 calendar days before the date the measurements are scheduled to be performed.
  - ii) Prior to each visual inspection of an external floating roof in a tank that has been emptied and degassed, written notification must be prepared and sent by the owner or operator so that it is received by the Agency at least 30

calendar days before refilling the tank except when an inspection is not planned, as provided for in subsection (f)(3)(C)(iii) of this Section.

- iii) When a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the Agency as soon as possible, but no later than seven calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Regional Administrator at least seven calendar days before refilling the tank.
- D) Procedure for determining gaps in the primary seal and in the secondary seal for the purposes of subsection (f)(3)(A)(iv) of this Section:
- i) The seal gap measurements must be performed at one or more floating roof levels when the roof is floating off the roof supports.
  - ii) Seal gaps, if any, must be measured around the entire perimeter of the floating roof in each place where a 0.32-cm ( $\frac{1}{4}$ -inch) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the tank and measure the circumferential distance of each such location.
  - iii) For a seal gap measured under this subsection (f)(3), the gap surface area must be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.
  - iv) The total gap area must be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal diameter of the tank. These total gap areas for the primary seal and secondary seal are then compared to the respective standards for the seal type, as specified in

subsection (f)(1)(B) of this Section.

BOARD NOTE: Subsections (f)(3)(D)(i) through (f)(3)(D)(iv) are derived from 40 CFR 265.1085(f)(3)(i)(D)(1) through (f)(3)(i)(D)(4), which the Board has codified here to comport with Illinois Administrative Code format requirements.

- 4) Safety devices, as defined in Section 725.981, may be installed and operated as necessary on any tank complying with the requirements of this subsection (f).
- g) The owner or operator that controls air pollutant emissions from a tank by venting the tank to a control device shall meet the requirements specified in subsections (g)(1) through (g)(3) of this Section.
  - 1) The tank must be covered by a fixed roof and vented directly through a closed-vent system to a control device in accordance with the following requirements:
    - A) The fixed roof and its closure devices must be designed to form a continuous barrier over the entire surface area of the liquid in the tank.
    - B) Each opening in the fixed roof not vented to the control device must be equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices must be designed to operate ~~such so~~ that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device must be designed to operate with no detectable organic emissions.
    - C) The fixed roof and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices must include the following: organic vapor permeability; the effects of any contact with the liquid and its vapor managed in the tank; the effects of outdoor exposure to wind, moisture, and

sunlight; and the operating practices used for the tank on which the fixed roof is installed.

- D) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 725.988.
- 2) Whenever a hazardous waste is in the tank, the fixed roof must be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except as follows:
- A) Venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times:
    - i) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.
    - ii) To remove accumulated sludge or other residues from the bottom of a tank.
  - B) Opening of a safety device, as defined in Section 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.
- 3) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the following procedures:
- A) The fixed roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to any of the following: visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.
  - B) The closed-vent system and control device must be inspected and

monitored by the owner or operator in accordance with the procedures specified in Section 725.988.

- C) The owner or operator shall perform an initial inspection of the air emission control equipment on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in subsection (l) of this Section.
  - D) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k) of this Section.
  - E) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).
- h) The owner or operator that controls air pollutant emissions by using a pressure tank must meet the following requirements.
- 1) The tank ~~shall~~must be designed not to vent to the atmosphere as a result of compression of the vapor headspace in the tank during filling of the tank to its design capacity.
  - 2) All tank openings must be equipped with closure devices designed to operate with no detectable organic emissions as determined using the procedure specified in Section 725.984(d).
  - 3) Whenever a hazardous waste is in the tank, the tank must be operated as a closed-vent system that does not vent to the atmosphere, except in the event that a safety device, as defined in 35 Ill. Adm. Code 725.981, is required to open to avoid an unsafe condition, under either of the following two conditions:
    - A) The tank does not need to be operated as a closed-vent system at those times when the opening of a safety device, as defined in Section 725.981, is required to avoid an unsafe condition.
    - B) The tank does not need to be operated as a closed-vent system at those times when the purging of inerts from the tank is required and the purge stream is routed to a closed-vent system and control device designed and operated in accordance with the requirements of Section 724.987.
- i) The owner or operator that controls air pollutant emissions by using an

enclosure vented through a closed-vent system to an enclosed combustion control device shall meet the requirements specified in subsections (i)(1) through (i)(4) of this Section.

- 1) The tank must be located inside an enclosure. The enclosure must be designed and operated in accordance with the criteria for a permanent total enclosure, as specified in "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B, incorporated by reference in 35 Ill. Adm. Code 720.111. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" initially when the enclosure is first installed and, thereafter, annually.
  - 2) The enclosure must be vented through a closed-vent system to an enclosed combustion control device that is designed and operated in accordance with the standards for either a vapor incinerator, boiler, or process heater specified in Section 725.988.
  - 3) Safety devices, as defined in Section 725.981, may be installed and operated as necessary on any enclosure, closed-vent system, or control device used to comply with the requirements of subsections (i)(1) and (i)(2) of this Section.
  - 4) The owner or operator shall inspect and monitor the closed-vent system and control device, as specified in Section 725.988.
- j) The owner or operator shall transfer hazardous waste to a tank subject to this Section in accordance with the following requirements:
- 1) Transfer of hazardous waste, except as provided in subsection (j)(2) of this Section, to the tank from another tank subject to this Section or from a surface impoundment subject to Section 725.986 must be conducted using continuous hard-piping or another closed system that does not allow exposure of the hazardous waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the requirements of 40 CFR 63, subpart RR, "National Emission Standards for Individual Drain Systems", incorporated by reference in 35 Ill. Adm. Code 720.111.



- 2) The requirements of subsection (j)(1) of this Section do not apply when transferring a hazardous waste to the tank under any of the following conditions:
  - A) The hazardous waste meets the average VO concentration conditions specified in Section 725.983(c)(1) at the point of waste origination.
  - B) The hazardous waste has been treated by an organic destruction or removal process to meet the requirements in Section 725.983(c)(2).
  - C) The hazardous waste meets the requirements of Section 725.983(c)(4).
- k) The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of subsection (c)(4), (e)(3), (f)(3), or (g)(3) of this Section as follows:
  - 1) The owner or operator shall make first efforts at repair of the defect no later than five calendar days after detection, and repair ~~shall~~must be completed as soon as possible but no later than 45 calendar days after detection except as provided in subsection (k)(2) of this Section.
  - 2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the hazardous waste normally managed in the tank. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Repair of the defect must be completed before the process or unit resumes operation.
- l) Following the initial inspection and monitoring of the cover as required by the applicable provisions of this Subpart, subsequent inspection and monitoring may be performed at intervals longer than one year under the following special conditions:
  - 1) Where inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions, then the owner or operator may designate a cover as an “unsafe to inspect and monitor cover” and comply with all of the following requirements:
    - A) Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if

required.

- B) Develop and implement a written plan and schedule to inspect and monitor the cover, using the procedures specified in the applicable Section of this Subpart, as frequently as practicable during those times when a worker can safely access the cover.
- 2) In the case when a tank is buried partially or entirely underground, an owner or operator is required to inspect and monitor, as required by the applicable provisions of this Section, only those portions of the tank cover and those connections to the tank (e.g., fill ports, access hatches, gauge wells, etc.) that are located on or above the ground surface.

(Source: Amended at 24 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 725.987 Standards: Containers

- a) The provisions of this Section apply to the control of air pollutant emissions from containers for which Section 725.983(b) references the use of this Section for such air emission control.
- b) General requirements.
  - 1) The owner or operator shall control air pollutant emissions from each container subject to this Section in accordance with the following requirements, as applicable to the container, except when the special provisions for waste stabilization processes specified in subsection (b)(2) of this Section apply to the container.
    - A) For a container having a design capacity greater than 0.1 m<sup>3</sup> (26 gal) and less than or equal to 0.46 m<sup>3</sup> (120 gal), the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c) of this Section.
    - B) For a container having a design capacity greater than 0.46 m<sup>3</sup> (120 gal) that is not in light material service, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c) of this Section.
    - C) For a container having a design capacity greater than 0.46 m<sup>3</sup> (120 gal) that is in light material service, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 2 standards specified in

subsection (d) of this Section.

- 2) When a container having a design capacity greater than 0.1 m<sup>3</sup> (26 gal) is used for treatment of a hazardous waste by a waste stabilization process, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 3 standards specified in subsection (e) of this Section at those times during the waste stabilization process when the hazardous waste in the container is exposed to the atmosphere.
- c) Container Level 1 standards.
- 1) A container using Container Level 1 controls is one of the following:
    - A) A container that meets the applicable ~~U.S. Department of Transportation (USDOT)~~ regulations on packaging hazardous materials for transportation, as specified in subsection (f) of this Section.
    - B) A container equipped with a cover and closure devices that form a continuous barrier over the container openings so that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container (e.g., a lid on a drum or a suitably secured tarp on a roll-off box) or may be an integral part of the container structural design (e.g., a “portable tank” or bulk cargo container equipped with a screw-type cap).
    - C) An open-top container in which an organic-vapor suppressing barrier is placed on or over the hazardous waste in the container ~~such 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 shall install all covers and closure devices for the container, as applicable to the container, and secure and maintain each closure device in the closed position except as follows:
  - A) Opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container as follows:
    - i) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.
    - ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.
  - B) Opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container as follows:
    - i) For the purpose of meeting the requirements of this Section, an empty container, as defined in 35 Ill. Adm. Code 721.107(b), may be open to the atmosphere at any time (i.e., covers and closure devices are not required to be secured in the closed position on an empty container).
    - ii) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container, as defined in 35 Ill. Adm. Code 721.107(b), the owner or operator shall promptly secure the closure devices in the closed

position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

- C) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.
  - D) Opening of a spring-loaded, pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device ~~which~~ that vents to the atmosphere is allowed during normal operations for the purpose of maintaining the container internal pressure in accordance with the design specifications of the container. The device must be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens must be established ~~such~~ 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 Section 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.
- 4) The owner or operator of containers using Container Level 1 controls must inspect the containers and their covers and closure devices as

follows:

- A) In the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility (i.e., it does not meet the conditions for an empty container as specified in 35 Ill. Adm. Code 721.107(b)), the owner or operator shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. 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 incorporated by reference in 35 Ill. Adm. Code 722.Appendix A (USEPA Forms 8700-22 and 8700-22A), as required under Section 725.171. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (c)(4)(C) of this Section.
  - B) In the case when a container used for managing hazardous waste remains at the facility for a period of one year or more, the owner or operator shall visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (c)(4)(C) of this Section.
  - C) When a defect is detected for the container, cover, or closure devices, the owner or operator shall make first efforts at repair of the defect no later than 24 hours after detection, and repair must be completed as soon as possible but no later than five calendar days after detection. If repair of a defect cannot be completed within five calendar days, then the hazardous waste must be removed from the container and the container must not be used to manage hazardous waste until the defect is repaired.
- 5) The owner or operator shall maintain at the facility a copy of the

procedure used to determine that containers with capacity of 0.46 m<sup>3</sup> (120 gal) or greater, which do not meet applicable USDOT regulations as specified in subsection (f) of this Section, are not managing hazardous waste in light material service.

d) Container Level 2 standards.

- 1) A container using Container Level 2 controls is one of the following:
  - A) A container that meets the applicable ~~U.S. Department of Transportation (USDOT)~~ regulations on packaging hazardous materials for transportation as specified in subsection (f) of this Section.
  - B) A container that operates with no detectable organic emissions, as defined in Section 725.981, and determined in accordance with the procedure specified in subsection (g) of this Section.
  - C) A container that has been demonstrated within the preceding 12 months to be vapor-tight by using 40 CFR 60, appendix A, Method 27, incorporated by reference in 35 Ill. Adm. Code 720.111, in accordance with the procedure specified in subsection (h) of this Section.
- 2) Transfer of hazardous waste in or out of a container using Container Level 2 controls must be conducted in such a manner as to minimize exposure of the hazardous waste to the atmosphere, to the extent practical, considering the physical properties of the hazardous waste and good engineering and safety practices for handling flammable, ignitable, explosive, reactive or other hazardous materials. Examples of container loading procedures that the USEPA considers to meet the requirements of this subsection (d)(2) include using any one of the following: a submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous waste is filled and subsequently purging the transfer line before removing it from the container opening.
- 3) Whenever a hazardous waste is in a container using Container Level 2 controls, the owner or operator shall install all covers and closure devices for the container, and secure and maintain each closure device in the closed position, except as follows:
  - A) Opening of a closure device or cover is allowed for the purpose

of adding hazardous waste or other material to the container as follows:

- i) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.
  - ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.
- B) Opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container as follows:
- i) For the purpose of meeting the requirements of this Section, an empty container as defined in 35 Ill. Adm. Code 721.107(b) may be open to the atmosphere at any time (i.e., covers and closure devices are not required to be secured in the closed position on an empty container).
  - ii) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container as defined in 35 Ill. Adm. Code 721.107(b), the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.
- C) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other



than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.

- D) Opening of a spring-loaded, pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device ~~which~~ 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 ~~such~~ 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 Section 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.
- 4) The owner or operator of containers using Container Level 2 controls shall inspect the containers and their covers and closure devices as follows:
- A) In the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied 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 shall visually inspect the container and its cover and closure devices to check

for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. 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 incorporated by reference in 35 Ill. Adm. Code 722. Appendix A (USEPA Forms 8700-22 and 8700-22A), as required under Section 725.171. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (d)(4)(C) of this Section.

- B) In the case when a container used for managing hazardous waste remains at the facility for a period of one year or more, the owner or operator shall visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (d)(4)(C) of this Section.
  - C) When a defect is detected for the container, cover, or closure devices, the owner or operator shall make first efforts at repair of the defect no later than 24 hours after detection, and repair must be completed as soon as possible but no later than five calendar days after detection. If repair of a defect cannot be completed within five calendar days, then the hazardous waste must be removed from the container and the container must not be used to manage hazardous waste until the defect is repaired.
- e) Container Level 3 standards.
- 1) A container using Container Level 3 controls is one of the following:
    - A) A container that is vented directly through a closed-vent system to a control device in accordance with the requirements of subsection (e)(2)(B) of this Section.
    - B) A container that is vented inside an enclosure which is exhausted through a closed-vent system to a control device in accordance

to: the interface of the cover rim and the container wall; the periphery of any opening on the container or container cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

- 2) The test must be performed when the container is filled with a material having a volatile organic concentration representative of the range of volatile organic concentrations for the hazardous wastes expected to be managed in this type of container. During the test, the container cover and closure devices must be secured in the closed position.
- h) ~~Procedure~~ The procedure for determining a container to be vapor-tight using Method 27 of 40 CFR 60, appendix A for the purpose of complying with subsection (d)(1)(C) of this Section: is as follows:
- 1) The test must be performed in accordance with Method 27 of 40 CFR 60, appendix A, incorporated by reference in 35 Ill. Adm. Code 720.111.
  - 2) A pressure measurement device must be used that has a precision of  $\pm 2.5$  mm (0.10 inch) water and that is capable of measuring above the pressure at which the container is to be tested for vapor tightness.
  - 3) If the test results determined by Method 27 indicate that the container sustains a pressure change less than or equal to 750 Pascals (0.11 psig) within five minutes after it is pressurized to a minimum of 4,500 Pascals (0.65 psig), then the container is determined to be vapor-tight.

(Source: Amended at 24 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)