POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMETNS

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

2) Code Citation: 35 Ill. Adm. Code725

3)

Section Numbers:	Proposed Action:
725.984	Amend
725.985	Amend
725.987	Amend
725.990	Amend

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

5) A Complete Description of the Subjects and Issues Involved: The amendments to Part 725 are a single segment of the docket R13-15 rulemaking that also affects 35 Ill. Adm. Code 703, 704, 720, 722, 724, 726, 727, 728, and 738, each of which is covered by a separate notice in this issue of the *Illinois Register*. To save space, a more detailed description of the subjects and issues involved in the docket R13-15 rulemaking in this issue of the *Illinois Register* only in the answer to question 5 in the Notice of Adopted Amendments for 35 Ill. Adm. Code 703. A comprehensive description is contained in the Board's opinion and order of June 20, 2013, proposing amendments in docket R13-15, which opinion and order is available from the address below.

Specifically, the amendments to Part 725 implement corrections suggested by USEPA and make corrections that the Board has determined are needed to facilitate updating the incorporations by reference. The Board's opinion and order of June 20, 2013 in docket R13-15 discusses the more substantial corrections made in the text. Tables that appear in that opinion and order list all of the various corrections and amendments included in this proceeding. Persons interested in the details of those corrections and amendments should refer to the June 20, 2013 opinion and order in docket R13-15.

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

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

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

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

9) Does this rulemaking contain incorporations by reference? No. The centralized location of all incorporations by reference for the purposes of all of the Illinois hazardous waste and underground injection control regulations, including Part 725, is 35 Ill. Adm. Code 720.111.

10) Statement of Statewide Policy Objectives: This rulemaking does not create or enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act. [30 ILCS 805/3(b) (2010)].

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

12) Time, Place and Manner in which interested persons may comment on this rulemaking: The Board will accept written public comment on this proposal for a period of 45 days after the date of this publication. Comments should reference docket R13-15 and be addressed to:

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

Please direct inquiries to the following person and reference docket R13-15:

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

Phone: 312-814-6924
E-mail: mccambm@ipcb.state.il.us

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

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13) Initial regulatory flexibility analysis:

A) Types of small businesses, small municipalities, and not-for-profit corporations affected: This rulemaking may affect those small businesses, small municipalities, and not-for-profit corporations that generate, transport, treat, store, or dispose of hazardous waste. These proposed amendments do not create or enlarge a state mandate, as defined in Section 3(b) of the State Mandates Act. [30 ILCS 805/3(b) (2010)].

B) Reporting, bookkeeping or other procedures required for compliance: The existing rules and proposed amendments require extensive reporting, bookkeeping and other procedures, including the preparation of manifests and annual reports, waste analyses and maintenance of operating records. These proposed amendments do not create or enlarge a state mandate, as defined in Section 3(b) of the State Mandates Act. [30 ILCS 805/3(b) (2010)].

C) Types of professional skills necessary for compliance: Compliance with the existing rules and proposed amendments may require the services of an attorney, certified public accountant, chemist, and registered professional engineer. These proposed amendments do not create or enlarge a state mandate, as defined in Section 3(b) of the State Mandates Act. [30 ILCS 805/3(b) (2010)].

14) Regulatory Agenda on which this rulemaking was summarized: December 2012

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

~~NOTICE OF PROPOSED AMENDMENTS~~

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

SUBPART A: GENERAL PROVISIONS

Section
725.101 Purpose, Scope, and Applicability
725.102 Electronic Reporting
725.104 Imminent Hazard Action

SUBPART B: GENERAL FACILITY STANDARDS

Section
725.110 Applicability
725.111 USEPA Identification Number
725.112 Required Notices
725.113 General Waste Analysis
725.114 Security
725.115 General Inspection Requirements
725.116 Personnel Training
725.117 General Requirements for Ignitable, Reactive, or Incompatible Wastes
725.118 Location Standards
725.119 Construction Quality Assurance Program

SUBPART C: PREPAREDNESS AND PREVENTION

Section
725.130 Applicability
725.131 Maintenance and Operation of Facility
725.132 Required Equipment
725.133 Testing and Maintenance of Equipment
725.134 Access to Communications or Alarm System
725.135 Required Aisle Space
725.137 Arrangements with Local Authorities

SUBPART D: CONTINGENCY PLAN AND EMERGENCY PROCEDURES

Section
725.150 Applicability
725.151 Purpose and Implementation of Contingency Plan
725.152 Content of Contingency Plan
725.153 Copies of Contingency Plan
725.154 Amendment of Contingency Plan
725.155 Emergency Coordinator
725.156 Emergency Procedures

SUBPART E: MANIFEST SYSTEM, RECORDKEEPING, AND REPORTING

Section
725.170 Applicability
725.171 Use of Manifest System
725.172 Manifest Discrepancies
725.173 Operating Record
725.174 Availability, Retention, and Disposition of Records
725.175 Annual Report
725.176 Unmanifested Waste Report
725.177 Additional Reports

SUBPART F: GROUNDWATER MONITORING

Section
725.190 Applicability
725.191 Groundwater Monitoring System
725.192 Sampling and Analysis
725.193 Preparation, Evaluation, and Response
725.194 Recordkeeping and Reporting

SUBPART G: CLOSURE AND POST-CLOSURE CARE

Section
725.210 Applicability
725.211 Closure Performance Standard
725.212 Closure Plan; Amendment of Plan
725.213 Closure; Time Allowed for Closure

SUBPART H: FINANCIAL REQUIREMENTS

SUBPART I: USE AND MANAGEMENT OF CONTAINERS

SUBPART J: TANK SYSTEMS

SUBPART K: SURFACE IMPOUNDMENTS

SUBPART L: WASTE PILES

SUBPART M: LAND TREATMENT

SUBPART N: LANDFILLS

SUBPART O: INCINERATORS

~~NOTICE OF PROPOSED AMENDMENTS~~

SUBPART AA: AIR EMISSION STANDARDS FOR PROCESS VENTS

Section
725.930 Applicability
725.931 Definitions
725.932 Standards: Process Vents
725.933 Standards: Closed-Vent Systems and Control Devices
725.934 Test Methods and Procedures
725.935 Recordkeeping Requirements

SUBPART BB: AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

Section
725.950 Applicability
725.951 Definitions
725.952 Standards: Pumps in Light Liquid Service
725.953 Standards: Compressors
725.954 Standards: Pressure Relief Devices in Gas/Vapor Service
725.955 Standards: Sampling Connecting Systems
725.956 Standards: Open-Ended Valves or Lines
725.957 Standards: Valves in Gas/Vapor or Light Liquid Service
725.958 Standards: Pumps, Valves, Pressure Relief Devices, Flanges, and Other Connectors
725.959 Standards: Delay of Repair
725.960 Standards: Closed-Vent Systems and Control Devices
725.961 Percent Leakage Alternative for Valves
725.962 Skip Period Alternative for Valves
725.963 Test Methods and Procedures
725.964 Recordkeeping Requirements

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

Section
725.980 Applicability
725.981 Definitions
725.982 Schedule for Implementation of Air Emission Standards
725.983 Standards: General
725.984 Waste Determination Procedures
725.985 Standards: Tanks
725.986 Standards: Surface Impoundments

SUBPART DD: CONTAINMENT BUILDINGS

SUBPART EE: HAZARDOUS WASTE MUNITIONS AND EXPLOSIVES STORAGE

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

SOURCE: Adopted in R81-22 at 5 Ill. Reg. 9781, effective May 17, 1982; amended and codified in R81-22 at 6 Ill. Reg. 4828, effective May 17, 1982; amended in R82-18 at 7 Ill. Reg. 2518, effective February 22, 1983; amended in R82-19 at 7 Ill. Reg. 14034, effective October 12, 1983; amended in R84-9 at 9 Ill. Reg. 11869, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 1085, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 14069, effective August 12, 1986; amended in R86-28 at 11 Ill. Reg. 6044, effective March 24, 1987; amended in R86-46 at 11 Ill. Reg. 13489, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19338, effective November 10, 1987; amended in R87-26 at 12 Ill. Reg. 2485, effective January 15, 1988; amended in R87-39 at 12 Ill. Reg. 13027, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 437, effective December 28, 1988; amended in R89-1 at 13 Ill. Reg. 18354, effective

November 13, 1989; amended in R90-2 at 14 Ill. Reg. 14447, effective August 22, 1990; amended in R90-10 at 14 Ill. Reg. 16498, effective September 25, 1990; amended in R90-11 at 15 Ill. Reg. 9398, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14534, effective October 1, 1991; amended in R91-13 at 16 Ill. Reg. 9578, effective June 9, 1992; amended in R92-1 at 16 Ill. Reg. 17672, effective November 6, 1992; amended in R92-10 at 17 Ill. Reg. 5681, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20620, effective November 22, 1993; amended in R93-16 at 18 Ill. Reg. 6771, effective April 26, 1994; amended in R94-7 at 18 Ill. Reg. 12190, effective July 29, 1994; amended in R94-17 at 18 Ill. Reg. 17548, effective November 23, 1994; amended in R95-6 at 19 Ill. Reg. 9566, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 11078, effective August 1, 1996; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 369, effective December 16, 1997; amended in R98-12 at 22 Ill. Reg. 7620, effective April 15, 1998; amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. 17620, effective September 28, 1998; amended in R98-21/R99-2/R99-7 at 23 Ill. Reg. 1850, effective January 19, 1999; amended in R99-15 at 23 Ill. Reg. 9168, effective July 26, 1999; amended in R00-5 at 24 Ill. Reg. 1076, effective January 6, 2000; amended in R00-13 at 24 Ill. Reg. 9575, effective June 20, 2000; amended in R03-7 at 27 Ill. Reg. 4187, effective February 14, 2003; amended in R05-8 at 29 Ill. Reg. 6028, effective April 13, 2005; amended in R05-2 at 29 Ill. Reg. 6389, effective April 22, 2005; amended in R06-5/R06-6/R06-7 at 30 Ill. Reg. 3460, effective February 23, 2006; amended in R06-16/R06-17/R06-18 at 31 Ill. Reg. 1031, effective December 20, 2006; amended in R07-5/R07-14 at 32 Ill. Reg. 12566, effective July 14, 2008; amended in R09-3 at 33 Ill. Reg. 1155, effective December 30, 2008; amended in R09-16/R10-4 at 34 Ill. Reg. 18890, effective November 12, 2010; amended in R11-2/R11-16 at 35 Ill. Reg. 18052, effective October 14, 2011; amended in R13-15 at 37 Ill. Reg. ~~—~~_____, effective _____~~_____~~.

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

Section 725.984 Waste Determination Procedures

a) Waste determination procedure for volatile organic (VO) concentration of a hazardous waste at the point of waste origination~~.~~

1) An owner or operator must determine the average VO concentration at the point of waste origination for each hazardous waste placed in a waste management unit exempted under the provisions of Section 725.983(c)(1) from using air emission controls in accordance with standards specified in Section 725.985 through Section 725.988, as applicable to the waste management unit.

A) An owner or operator must make an initial determination of the

average VO concentration of the waste stream before the first time any portion of the material in the hazardous waste stream is placed in a waste management unit exempted under the provisions of Section 725.983(c)(1) from using air emission controls. Thereafter, an owner or operator must make an initial determination of the average VO concentration of the waste stream for each averaging period that a hazardous waste is managed in the unit.

B) An owner or operator must perform a new waste determination whenever changes to the source generating the waste stream are reasonably likely to cause the average VO concentration of the hazardous waste to increase to a level that is equal to or greater than the VO concentration limits specified in Section 725.983(c)(1).

2) For a waste determination that is required by subsection (a)(1) of this Section, the average VO concentration of a hazardous waste at the point of waste origination must be determined using either direct measurement, as specified in subsection (a)(3) of this Section, or by knowledge of the waste, as specified in subsection (a)(4) of this Section.

3) Direct measurement to determine average VO concentration of a hazardous waste at the point of waste origination~~.~~

A) Identification. The owner or operator must identify and record the point of waste origination for the hazardous waste.

B) Sampling. Samples of the hazardous waste stream must be collected at the point of waste origination in such a manner that volatilization of organics contained in the waste and in the subsequent sample is minimized and an adequately representative sample is collected and maintained for analysis by the selected method.

i) The averaging period to be used for determining the average VO concentration for the hazardous waste stream on a mass-weighted average basis must be designated and recorded. The averaging period can represent any time interval that the owner or operator determines is appropriate

for the hazardous waste stream but must not exceed one year.

ii) A sufficient number of samples, but no fewer than four samples, must be collected for a hazardous waste determination. All of the samples for a given waste determination must be collected within a one-hour period. The average of the four or more sample results constitutes a waste determination for the waste stream. One or more waste determinations may be required to represent the complete range of waste compositions and quantities that occur during the entire averaging period due to normal variations in the operating conditions for the source or process generating the hazardous waste stream. Examples of such normal variations are seasonal variations in waste quantity or fluctuations in ambient temperature.

iii) All samples must be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan must describe the procedure by which representative samples of the hazardous waste stream are collected so that a minimum loss of organics occurs throughout the sample collection and handling process, and by which sample integrity is maintained. A copy of the written sampling plan must be maintained on-site in the facility operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures in Method 25D (Determination of the Volatile Organic Concentration of Waste Samples) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b).

iv) Sufficient information, as specified in the "site sampling plan" required under subsection (a)(3)(B)(iii) of this Section, must be prepared and recorded to document the waste quantity represented by the samples and, as applicable, the operating conditions for the source or process generating the hazardous waste represented by the samples.

C) Analysis. Each collected sample must be prepared and analyzed in accordance with ~~Method~~method 25D in appendix A to 40 CFR 60 for the total concentration of volatile organic constituents or using one or more methods when the individual organic compound concentrations are identified and summed and the summed waste concentration accounts for and reflects all organic compounds in the waste with Henry~~'~~'s law constant values at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) (which can also be expressed as 1.8~~*~~ x 10^{-6} atmospheres/gram-mole/m^3) at 25° C (77° F). At the owner~~'~~'s or operator~~'~~'s discretion, the owner or operator may adjust test data measured by any appropriate method to discount any contribution to the total volatile organic concentration that is a result of including a compound with a Henry~~'~~'s law constant value of less than 0.1 Y/X at 25° C (77° F). To adjust these data, the measured concentration of each individual chemical constituent contained in the waste is multiplied by the constituent-specific adjustment factor (f_{m25D}). If the owner or operator elects to adjust test data, the adjustment must be made to all individual chemical constituents with a Henry's law constant value greater than or equal to 0.1 Y/X at 25° C contained in the waste. Constituent-specific adjustment factors (f_{m25D}) can be obtained by contacting the USEPA, Waste and Chemical Processes Group, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711. Other test methods may be used if they meet the requirements in subsection (a)(3)(C)(i) or (a)(3)(C)(ii) of this Section and provided the requirement is met to reflect all organic compounds in the waste with Henry~~'~~'s law constant values greater than or equal to 0.1 Y/X (which can also be expressed as 1.8 ~~*~~x 10^{-6} atmospheres/gram-mole/m^3) at 25~~°~~ °C.

i) Any USEPA standard method that has been validated in accordance with appendix D to 40 CFR 63 (Alternative Validation Procedure for EPA Waste and Wastewater Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b); or

ii) Any other analysis method that has been validated in accordance with the procedures specified in Section 5.1 or

5.3, and the corresponding calculations in Section 6.1 or 6.3, of Method 301 (Field Validation of Pollutant Measurement Methods from Various Waste Media) in appendix A to 40 CFR 63 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b). The data are acceptable if they meet the criteria specified in Section 6.1.5 or 6.3.3 of Method 301. If correction is required under Section 6.3.3 of Method 301, the data are acceptable if the correction factor is within the range 0.7 to 1.30. Other sections of Method 301 are not required.

D) Calculations~~.~~

i) The average VO concentration ~~θ~~$\bar{C}$ 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:

~~=~~ ~~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.~~

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

i ≡ Individual waste determination "i" of the hazardous waste

n ≡ Total number of waste determinations of the hazardous waste conducted for the averaging period (not to exceed one year)

Q_i ≡ Mass quantity of the hazardous waste stream represented by C_i in kg/hr

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

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

ii) For the purpose of determining C_i, for individual waste samples analyzed in accordance with subsection (a)(3)(C) of this Section, the owner or operator must account for VO concentrations determined to be below the limit of detection of the analytical method by using the VO concentration determined according to subsection (a)(3)(G) of this Section.

E) Provided that the test method is appropriate for the waste as required under subsection (a)(3)(C) of this Section, the Agency must determine compliance based on the test method used by the owner or operator as recorded pursuant to Section 725.990(f)(1).

F) The quality assurance program elements required under subsections (a)(3)(C)(vi) and (a)(3)(C)(vii) of this Section are as follows:

i) Documentation of site-specific procedures to minimize the loss of compounds due to volatilization, biodegradation, reaction, or sorption during the sample collection, storage, preparation, introduction, and analysis steps.

ii) Measurement of the overall accuracy and precision of the specific procedures.

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

G) VO concentrations below the limit of detection must be considered to be as follows:

i) If Method 25D is used for the analysis, the VO concentration must be considered to be one-half the blank value determined in the method at Section 4.4 of Method 25D.

ii) If any other analytical method is used, the VO concentration must be considered to be one-half the sum of the limits of detection established for each organic constituent in the waste that has a Henry~~'~~s law constant value at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) (which can also be expressed as 1.8 ~~*~~x 10-6 atmospheres/gram-mole/m3) at 25° C.

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

4) Use of owner or operator knowledge to determine average VO concentration of a hazardous waste at the point of waste origination.

A) Documentation must be prepared that presents the information used as the basis for the owner~~'~~'s or operator~~'~~'s knowledge of the hazardous waste stream~~'~~'s average VO concentration. Examples of information that may be used as the basis for knowledge include the following: material balances for the source or process generating the hazardous waste stream; constituent-specific chemical test data for the hazardous waste stream from previous testing that are still applicable to the current waste stream; previous test data for other locations managing the same type of waste stream; or other knowledge based on information included in manifests, shipping papers, or waste certification notices.

B) If test data are used as the basis for knowledge, then the owner or operator must document the test method, sampling protocol, and the means by which sampling variability and analytical variability are accounted for in the determination of the average VO concentration. For example, an owner or operator may use organic concentration test data for the hazardous waste stream that are validated in accordance with Method 301 as the basis for knowledge of the waste.

C) An owner or operator using chemical constituent-specific concentration test data as the basis for knowledge of the hazardous waste may adjust the test data to the corresponding average VO concentration value that would have been obtained had the waste samples been analyzed using Method 25D. To adjust these data, the measured concentration for each individual chemical constituent contained in the waste is multiplied by the appropriate constituent-specific adjustment factor (f_{m25D}).

D) In the event that the Agency and the owner or operator disagree on a determination of the average VO concentration for a hazardous waste stream using knowledge, then the results from a determination of average VO concentration using direct measurement, as specified in subsection (a)(3) of this Section, must be used to establish compliance with the applicable requirements

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

b) Waste determination procedures for treated hazardous waste.

1) An owner or operator must perform the applicable waste determination for each treated hazardous waste placed in a waste management unit exempted under the provisions of Section 725.983(c)(2)(A) through (c)(2)(F) from using air emission controls in accordance with the standards specified in Sections 725.985 through 725.988, as applicable to the waste management unit.

A) An owner or operator must make an initial determination of the average VO concentration of the waste stream before the first time any portion of the material in the treated waste stream is placed in the waste management unit exempt under Section 725.983(c)(2), (c)(3), or (c)(4) from using air emission controls. Thereafter, an owner or operator must update the information used for the waste determination at least once every 12 months following the date of the initial waste determination.

B) An owner or operator must perform a new waste determination whenever changes to the process generating or treating the waste stream are reasonably likely to cause the average VO concentration of the hazardous waste to increase to such a level that the applicable treatment conditions specified in Section 725.983 (c)(2), (c)(3), or (c)(4) are not achieved.

2) The owner or operator must designate and record the specific provision in Section 725.983(c)(2) under which the waste determination is being performed. The waste determination for the treated hazardous waste must be performed using the applicable procedures specified in subsections (b)(3) through (b)(9) of this Section.

3) Procedure to determine the average VO concentration of a hazardous waste at the point of waste treatment.

A) Identification. The owner or operator must identify and record the point of waste treatment for the hazardous waste.

B) Sampling. Samples of the hazardous waste stream must be collected at the point of waste treatment in such a manner that volatilization of organics contained in the waste and in the subsequent sample is minimized and an adequately representative sample is collected and maintained for analysis by the selected method.

i) The averaging period to be used for determining the average VO concentration for the hazardous waste stream on a mass-weighted average basis must be designated and recorded. The averaging period can represent any time interval that the owner or operator determines is appropriate for the hazardous waste stream but must not exceed one year.

ii) A sufficient number of samples, but no fewer than four samples, must be collected and analyzed for a hazardous waste determination. All of the samples for a given waste determination must be collected within a one-hour period. The average of the four or more sample results constitutes a waste determination for the hazardous waste stream. One or more waste determinations may be required to represent the complete range of waste compositions and quantities that occur during the entire averaging period due to normal variations in the operating conditions for the process generating or treating the hazardous waste stream. Examples of such normal variations are seasonal variations in waste quantity or fluctuations in ambient temperature.

iii) All samples must be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan must describe the procedure by which representative samples of the hazardous waste stream are collected so that a minimum loss of organics occurs throughout the sample collection and handling process, and by which sample integrity is

maintained. A copy of the written sampling plan must be maintained on-site in the facility operating records. An example of an acceptable sample collection and handling procedures for a total organic constituent concentration may be found in Method 25D.

iv) Sufficient information, as specified in the ~~"~~"site sampling plan~~"~~" required under subsection (a)(3)(B)(iii) of this Section, must be prepared and recorded to document the waste quantity represented by the samples and, as applicable, the operating conditions for the process treating the hazardous waste represented by the samples.

C) Analysis. Each collected sample must be prepared and analyzed in accordance with Method 25D for the total concentration of volatile organic constituents or using one or more methods when the individual organic compound concentrations are identified and summed, and the summed waste concentration accounts for and reflects all organic compounds in the waste with Henry~~'~~'s law constant values at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) (which can also be expressed as 1.8 ~~x~~X 10^{-6} atmospheres/gram-mole/m^3) at 25°C (75° F). When the owner or operator is making a waste determination for a treated hazardous waste that is to be compared to an average VO concentration at the point of waste origination or the point of waste entry to the treatment system, to determine if the conditions of 35 Ill. Adm. Code 724.982(c)(2)(A) through (c)(2)(F) or Section 725.983(c)(2)(A) through (c)(2)(F) are met, then the waste samples must be prepared and analyzed using the same method or methods as were used in making the initial waste determinations at the point of waste origination or at the point of entry to the treatment system. At the owner~~'~~'s or operator~~'~~'s discretion, the owner or operator may adjust test data obtained by any appropriate method to discount any contribution to the total volatile organic concentration that is a result of including a compound with a Henry~~'~~'s law constant value less than 0.1 Y/X at 25° C . To adjust these data, the measured concentration of each individual chemical constituent contained in the waste is multiplied by the constituent-specific adjustment factor (f_{m25D}). If the owner or operator elects to adjust test data, the

adjustment must be made to all individual chemical constituents with a Henry's law constant value greater than or equal to 0.1 Y/X at 25° C contained in the waste. Constituent-specific adjustment factors (f_{m25D}) can be obtained by contacting the USEPA, Waste and Chemical Processes Group, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711. Other test methods may be used if they meet the requirements in subsection (a)(3)(C)(i) or (a)(3)(C)(ii) of this Section and provided the requirement is met to reflect all organic compounds in the waste with Henry's law constant values greater than or equal to 0.1 Y/X (which can also be expressed as 1.8 ~~*~~x 10^{-6} atmospheres/gram-mole/m^3) at 25° C.

i) Any USEPA standard method that has been validated in accordance with appendix D to 40 CFR 63, incorporated by reference in 35 Ill. Adm. Code 720.111(b); or

ii) Any other analysis method that has been validated in accordance with the procedures specified in Section 5.1 or 5.3, and the corresponding calculations in Section 6.1 or 6.3, of Method 301 in appendix A to 40 CFR 63, incorporated by reference in 35 Ill. Adm. Code 720.111(b). The data are acceptable if they meet the criteria specified in Section 6.1.5 or 6.3.3 of Method 301. If correction is required under Section 6.3.3 of Method 301, the data are acceptable if the correction factor is within the range 0.7 to 1.30. Other sections of Method 301 are not required.

D) Calculations. The average VO concentration ($\bar{C}$) on a mass-weighted basis must be calculated by using the results for all samples analyzed in accordance with subsection (b)(3)(C) of this Section and the following equation:

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

Where:

~~=~~ ~~Average VO concentration of the hazardous waste at the point of waste treatment on a mass-weighted basis, in ppmw~~

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

~~n =~~ ~~Total number of waste determinations of the hazardous waste collected for the averaging period (not to exceed one year)~~

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

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

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

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

$\underline{i}$ = Individual determination "i" of the hazardous waste

$\underline{n}$ = Total number of waste determinations of the hazardous waste collected for the averaging period (not to exceed one year)

$\underline{Q_i}$ = Mass quantity of the hazardous waste stream represented by C_i in kg/hr

$\underline{Q_T}$ = Total mass quantity of hazardous waste during the averaging period, in kg/hr

$\underline{C_i}$ = Measured VO concentration of waste determinations "i," as determined in accordance with the requirements of subsection (b)(3)(C) of

this Section (i.e., the average of the four or more samples specified in subsection (b)(3)(B)(ii) of this Section), in ppmw.

E) Provided that the test method is appropriate for the waste as required under subsection (b)(3)(C) of this Section, compliance must be determined based on the test method used by the owner or operator as recorded pursuant to Section 725.990(f)(1).

4) Procedure to determine the exit concentration limit (C_t) for a treated hazardous waste~~.~~

A) The point of waste origination for each hazardous waste treated by the process at the same time must be identified.

B) If a single hazardous waste stream is identified in subsection (b)(4)(A) of this Section, then the exit concentration limit (C_t) must be 500 ppmw.

C) If more than one hazardous waste stream is identified in subsection (b)(4)(A) of this Section, then the average VO concentration of each hazardous waste stream at the point of waste origination must be determined in accordance with the requirements of subsection (a) of this Section. The exit concentration limit (C_t) must be calculated by using the results determined for each individual hazardous waste stream and the following equation:

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

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~~

~~=~~ ~~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.~~

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
C_x = Average VO concentration of hazardous waste stream "x" at the point of waste origination, as determined in accordance with the requirements of subsection (a) of this Section, in ppmw.

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

A) The organic reduction efficiency (R) for a treatment process must be determined based on results for a minimum of three consecutive runs.

B) All hazardous waste streams entering the process and all hazardous waste streams exiting the treatment process must be identified. The owner or operator must prepare a sampling plan for measuring these streams that accurately reflects the retention time of the hazardous waste in the process.

C) For each run, information must be determined for each hazardous waste stream identified in subsection (b)(5)(B) of this Section, using the following procedures:

i) The mass quantity of each hazardous waste stream entering the process (Q_b) and the mass quantity of each hazardous waste stream exiting the process (Q_a) must be determined; and

ii) The average VO concentration at the point of waste origination of each hazardous waste stream entering the process (C_b) during the run must be determined in accordance with the requirements of subsection (a)(3) of

this Section. The average VO concentration at the point of waste treatment of each hazardous waste stream exiting the process (C_a) during the run must be determined in accordance with the requirements of subsection (b)(3) of this Section.

D) The waste volatile organic mass flow entering the process (E_b) and the waste volatile organic mass flow exiting the process (E_a) must be calculated by using the results determined in accordance with subsection (b)(5)(C) of this Section and the following equations:

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

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

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~~

~~= 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~~

~~=~~ ~~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_a ≡ Waste volatile organic mass flow existing 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/yr

Q_{aj} ≡ Average mass quantity of waste exiting the process during run "j," in kg/yr

$\overline{C_{aj}}$ ≡ 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:

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

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.~~

R = Organiz 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 appendix C to 40 CFR 63 (Determination of the Fraction Biodegraded (F_{bio}) in a Biological Treatment Unit), incorporated by reference in 35 Ill. Adm. Code 720.111(b).

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.~~

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:

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

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^3/hr~~

~~k_y =~~ ~~Density of hazardous waste stream "y," in kg/m^3~~

~~=~~ ~~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.~~

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^3/hr
k_y	≡	Density of hazardous waste stream "y," in kg/m^3
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.~~

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

9) Procedure to determine the actual organic mass biodegradation rate (MR_{bio}) for a treated hazardous waste~~.~~

A) The actual organic mass biodegradation rate (MR_{bio}) must be determined based on results for a minimum of three consecutive

runs. The sampling time for each run must be one hour.

B) The waste organic mass flow entering the process (E_b) must be determined in accordance with the requirements of subsection (b)(5)(D) of this Section.

C) The fraction of organic biodegraded (F_{bio}) must be determined using the procedure specified in appendix C to 40 CFR 63 (Determination of the Fraction Biodegraded (F_{bio}) in a Biological Treatment Unit), incorporated by reference in 35 Ill. Adm. Code 720.111(b).

D) The actual organic mass biodegradation rate (MR_{bio}) must be calculated by using the mass flow rates and fraction of organic biodegraded, as determined in accordance with the requirements of subsections (b)(9)(B) and (b)(9)(C) of this Section, respectively, and the following equation:

~~Where:~~

MR_{bio} = ~~Actual organic mass biodegradation rate, in kg/hr~~$E_b \times F_{bio}$

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

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

Where:

MR_{bio}	≡	Actual organic mass biodegradation rate, in kg/hr
E_b	≡	Waste organic mass flow entering the process, as determined in accordance with the requirements of subsection (b)(5)(D) of this Section, in kg/hr
F_{bio}	≡	Fraction of organic biodegraded, as determined in accordance with the requirements of subsection (b)(9)(C) of this Section, in kg/hr.

c) Procedure to determine the maximum organic vapor pressure of a hazardous waste in a tank~~.~~

1) An owner or operator must determine the maximum organic vapor pressure for each hazardous waste placed in a tank using Tank Level 1 controls in accordance with standards specified in Section 725.985(c).

2) An owner or operator must use either direct measurement, as specified in subsection (c)(3) of this Section, or knowledge of the waste, as specified by subsection (c)(4) of this Section, to determine the maximum organic vapor pressure that is representative of the hazardous waste composition stored or treated in the tank.

3) Direct measurement to determine the maximum organic vapor pressure of a hazardous waste~~.~~

A) Sampling. A sufficient number of samples must be collected to be representative of the waste contained in the tank. All samples must be conducted and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan must describe the procedure by which representative samples of the hazardous waste are collected so that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan must be maintained on-site in the facility operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures and may be found in Method 25D.

B) Analysis. Any appropriate one of the following methods may be used to analyze the samples and compute the maximum organic vapor pressure of the hazardous waste:

i) Method 25E (Determination of Vapor Phase Organic Concentration in Waste Samples) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b);

ii) Methods described in API publication 2517 (Evaporative Loss from External Floating-Roof Tanks), incorporated by reference in 35 Ill. Adm. Code 720.111(a);

iii) Methods obtained from standard reference texts;

iv) ASTM Method D 2879-92 (Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope), incorporated by reference in 35 Ill. Adm. Code 720.111(a); or

v) Any other method approved by the Agency.

4) Use of knowledge to determine the maximum organic vapor pressure of the hazardous waste. Documentation must be prepared and recorded that presents the information used as the basis for the owner's or operator's knowledge that the maximum organic vapor pressure of the hazardous waste is less than the maximum vapor pressure limit listed in Section 725.985(b)(1)(A) for the applicable tank design capacity category. An example of information that may be used is documentation that the hazardous waste is generated by a process for which at other locations it previously has been determined by direct measurement that the waste maximum organic vapor pressure is less than the maximum vapor pressure limit for the appropriate tank design capacity category.

d) The procedure for determining no detectable organic emissions for the purpose of complying with this Subpart CC is as follows:

1) The test must be conducted in accordance with the procedures specified in Method 21 (Determination of Volatile Organic Compound Leaks) of appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b). Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the cover and associated closure devices must be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to, any of the following: the interface of the cover and its foundation mounting, the periphery of any opening on the cover and its associated closure device, and the sealing seat interface on a spring-loaded pressure relief valve.

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

3) The detection instrument must meet the performance criteria of Method 21, 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.

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.

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. 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 37 Ill. Reg. ~~—~~ _____, effective _____ ~~_____~~)

Section 725.985 Standards: Tanks

a) The provisions of this Section apply to the control of air pollutant emissions from tanks for which Section 725.983(b) references the use of this Section for such air emission control.

b) The owner or operator must control air pollutant emissions from each tank subject to this Section in accordance with the following requirements, as applicable:

1) For a tank that manages hazardous waste that meets all of the conditions specified in subsections (b)(1)(A) through (b)(1)(C) of this Section, the owner or operator must control air pollutant emissions from the tank in accordance with the Tank Level 1 controls specified in subsection (c) of this Section or the Tank Level 2 controls specified in subsection (d) of this Section.

A) The hazardous waste in the tank has a maximum organic vapor pressure that is less than the maximum organic vapor pressure limit for the tank~~'~~'s design capacity category, as follows:

i) For a tank design capacity equal to or greater than 151 m^3 (5333 ft^3 or 39,887 gal), the maximum organic vapor pressure limit for the tank is 5.2 kPa (0.75 psia or 39 ~~mm Hg~~mmHg);

ii) For a tank design capacity equal to or greater than 75 m^3 (2649 ft^3 or 19,810 gal) but less than 151 m^3 (5333 ft^3 or

39,887 gal), the maximum organic vapor pressure limit for the tank is 27.6 kPa (4.0 psia or 207 ~~mm Hg~~mmHg); or

iii) For a tank design capacity less than 75 m^3 (2649 ft^3 or 19,810 gal), the maximum organic vapor pressure limit for the tank is 76.6 kPa (11.1 psia or 574 ~~mm Hg~~mmHg).

B) The hazardous waste in the tank is not heated by the owner or operator to a temperature that is greater than the temperature at which the maximum organic vapor pressure of the hazardous waste is determined for the purpose of complying with subsection (b)(1)(A) of this Section.

C) The hazardous waste in the tank is not treated by the owner or operator using a waste stabilization process, as defined in Section 725.981.

2) For a tank that manages hazardous waste that does not meet all of the conditions specified in subsections (b)(1)(A) through (b)(1)(C) of this Section, the owner or operator must control air pollutant emissions from the tank by using Tank Level 2 controls in accordance with the requirements of subsection (d) of this Section. Examples of tanks required to use Tank Level 2 controls include the following: a tank used for a waste stabilization process and a tank for which the hazardous waste in the tank has a maximum organic vapor pressure that is equal to or greater than the maximum organic vapor pressure limit for the tank's design capacity category, as specified in subsection (b)(1)(A) of this Section.

c) An owner or operator controlling air pollutant emissions from a tank using Tank Level 1 controls must meet the requirements specified in subsections (c)(1) through (c)(4) of this Section:

1) The owner or operator must determine the maximum organic vapor pressure for a hazardous waste to be managed in the tank using Tank Level 1 controls before the first time the hazardous waste is placed in the tank. The maximum organic vapor pressure must be determined using the procedures specified in Section 725.984(c). Thereafter, the owner or operator must perform a new determination whenever changes to the hazardous waste managed in the tank could potentially cause the maximum organic vapor pressure to increase to a level that is equal to or

greater than the maximum organic vapor pressure limit for the tank design capacity category specified in subsection (b)(1)(A) of this Section, as applicable to the tank.

2) The tank must be equipped with a fixed roof designed to meet the following specifications:

A) The fixed roof and its closure devices must be designed to form a continuous barrier over the entire surface area of the hazardous waste in the tank. The fixed roof may be a separate cover installed on the tank (e.g., a removable cover mounted on an open-top tank) or may be an integral part of the tank structural design (e.g., a horizontal cylindrical tank equipped with a hatch).

B) The fixed roof must be installed in such a manner that there are no visible cracks, holes, gaps, or other open spaces between roof section joints or between the interface of the roof edge and the tank wall.

C) Either of the following must be true of each opening in the fixed roof and of any manifold system associated with the fixed roof must be either:

i) The opening or manifold system is equipped with a closure device designed to operate so that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device; or

ii) The opening or manifold system is connected by a closed-vent system that is vented to a control device. The control device must remove or destroy organics in the vent stream, and it must be operating whenever hazardous waste is managed in the tank, except as provided for in subsection (c)(2)(E).

D) The fixed roof and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and which will maintain the

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

E) The control device operated pursuant to subsection (c)(2)(C) of this Section needs not remove or destroy organics in the vent stream under the following conditions:

i) During periods when it is necessary to provide access to the tank for performing the activities of subsection (c)(2)(E)(ii) of this Section, venting of the vapor headspace underneath the fixed roof to the control device is not required, opening of closure devices is allowed, and removal of the fixed roof is allowed. Following completion of the activity, the owner or operator must promptly secure the closure device in the closed position or reinstall the cover, as applicable, and resume operation of the control device; and

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

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

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

A) Opening of closure devices or removal of the fixed roof is allowed at the following times:

i) To provide access to the tank for performing routine

inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator must promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

ii) To remove accumulated sludge or other residues from the bottom of tank.

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

C) Opening of a safety device, as defined in Section 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.

4) The owner or operator must inspect the air emission control equipment in accordance with the following requirements~~.~~:

A) The fixed roof and its closure devices must be visually inspected

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

B) The owner or operator must perform an initial inspection of the fixed roof and its closure devices on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator must perform the inspections at least once every year, except under the special conditions provided for in subsection (l) of this Section.

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

D) The owner or operator must maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).

d) An owner or operator controlling air pollutant emissions from a tank using Tank Level 2 controls must use one of the following tanks:

1) A fixed-roof tank equipped with an internal floating roof in accordance with the requirements specified in subsection (e) of this Section;

2) A tank equipped with an external floating roof in accordance with the requirements specified in subsection (f) of this Section;

3) A tank vented through a closed-vent system to a control device in accordance with the requirements specified in subsection (g) of this Section;

4) A pressure tank designed and operated in accordance with the requirements specified in subsection (h) of this Section; or

5) A tank located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device in accordance with the requirements specified in subsection (i) of this Section.

e) The owner or operator that controls air pollutant emissions from a tank using a fixed roof with an internal floating roof must meet the requirements specified in subsections (e)(1) through (e)(3) of this Section.

1) The tank must be equipped with a fixed roof and an internal floating roof in accordance with the following requirements:

A) The internal floating roof must be designed to float on the liquid surface except when the floating roof must be supported by the leg supports.

B) The internal floating roof must be equipped with a continuous seal between the wall of the tank and the floating roof edge that meets either of the following requirements:

i) A single continuous seal that is either a liquid-mounted seal or a metallic shoe seal, as defined in Section 725.981; or

ii) Two continuous seals mounted one above the other. The lower seal may be a vapor-mounted seal.

C) The internal floating roof must meet the following specifications:

i) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface;

ii) Each opening in the internal floating roof must be equipped with a gasketed cover or a gasketed lid except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains;

iii) Each penetration of the internal floating roof for the purpose of sampling must have a slit fabric cover that covers at least 90 percent of the opening;

iv) Each automatic bleeder vent and rim space vent must be gasketed;

v) Each penetration of the internal floating roof that allows for passage of a ladder must have a gasketed sliding cover; and

vi) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof must have a flexible fabric sleeve seal or a gasketed sliding cover.

2) The owner or operator must operate the tank in accordance with the following requirements:

A) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling must be continuous and must be completed as soon as practical;

B) Automatic bleeder vents are to be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports; and

C) Prior to filling the tank, each cover, access hatch, gauge float well or lid on any opening in the internal floating roof must be bolted or fastened closed (i.e., no visible gaps). Rim space vents are to be set to open only when the internal floating roof is not floating or when the pressure beneath the rim exceeds the manufacturer~~'~~'s recommended setting.

3) The owner or operator must inspect the internal floating roof in accordance with the procedures specified as follows:

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

B) The owner or operator must inspect the internal floating roof

components as follows, except as provided in subsection (e)(3)(C) of this Section:

i) Visually inspect the internal floating roof components through openings on the fixed roof (e.g., manholes and roof hatches) at least once every 12 months after initial fill, and

ii) Visually inspect the internal floating roof, primary seal, secondary seal (if one is in service), gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least once every 10 years;

C) As an alternative to performing the inspections specified in subsection (e)(3)(B) of this Section for an internal floating roof equipped with two continuous seals mounted one above the other, the owner or operator may visually inspect the internal floating roof, primary and secondary seals, gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least every five years;

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

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

ii) When a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator must notify the Agency as soon as possible, but no later than seven calendar days before refilling of the tank.

This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Regional Administrator at least seven calendar days before refilling the tank;

E) In the event that a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (k) of this Section; and

F) The owner or operator must maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).

4) Safety devices, as defined in Section 725.981, may be installed and operated as necessary on any tank complying with the requirements of this subsection (e).

f) The owner or operator that controls air pollutant emissions from a tank using an external floating roof must meet the requirements specified in subsections (f)(1) through (f)(3) of this Section.

1) The owner or operator must design the external floating roof in accordance with the following requirements:

A) The external floating roof must be designed to float on the liquid surface except when the floating roof must be supported by the leg supports;

B) The floating roof must be equipped with two continuous seals, one above the other, between the wall of the tank and the roof edge. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.

i) The primary seal must be a liquid-mounted seal or a metallic shoe seal, as defined in Section 725.981. The total area of the gaps between the tank wall and the primary seal must not exceed 212 square centimeters (cm^2) per meter (10.0 in^2 per foot) of tank diameter, and the width of any portion of these gaps must not exceed 3.8 centimeters (cm)

(1.5 inches). If a metallic shoe seal is used for the primary seal, the metallic shoe seal must be designed so that one end extends into the liquid in the tank and the other end extends a vertical distance of at least 61 centimeters (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 cm^2 per meter (1.0 in^2 per foot) of tank diameter, and the width of any portion of these gaps must not exceed 1.3 cm (0.5 inch); and

C) The external floating roof must meet the following specifications:

i) Except for automatic bleeder vents (vacuum breaker vents) and rim space vents, each opening in a noncontact external floating roof must provide a projection below the liquid surface;

ii) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof must be equipped with a gasketed cover, seal, or lid;

iii) Each access hatch and each gauge float well must be equipped with a cover designed to be bolted or fastened when the cover is secured in the closed position;

iv) Each automatic bleeder vent and each rim space vent must be equipped with a gasket;

v) Each roof drain that empties into the liquid managed in the tank must be equipped with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening;

vi) Each unslotted and slotted guide pole well must be equipped with a gasketed sliding cover or a flexible fabric sleeve seal;

vii) Each unslotted guide pole must be equipped with a gasketed cap on the end of the pole;

viii) Each slotted guide pole must be equipped with a gasketed float or other device that closes off the liquid surface from the atmosphere; and

ix) Each gauge hatch and each sample well must be equipped with a gasketed cover.

2) The owner or operator must operate the tank in accordance with the following requirements:

A) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling must be continuous and must be completed as soon as practical;

B) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof must be secured and maintained in a closed position at all times except when the closure device must be open for access;

C) Covers on each access hatch and each gauge float well must be bolted or fastened when secured in the closed position;

D) Automatic bleeder vents must be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports;

E) Rim space vents must be set to open only at those times that the roof is being floated off the roof leg supports or when the pressure beneath the rim seal exceeds the manufacturer~~'~~'s recommended setting;

F) The cap on the end of each unslotted guide pole must be secured in the closed position at all times except when measuring the level or collecting samples of the liquid in the tank;

G) The cover on each gauge hatch or sample well must be secured in

the closed position at all times except when the hatch or well must be opened for access; and

H) Both the primary seal and the secondary seal must completely cover the annular space between the external floating roof and the wall of the tank in a continuous fashion except during inspections.

3) The owner or operator must inspect the external floating roof in accordance with the procedures specified as follows:

A) The owner or operator must measure the external floating roof seal gaps in accordance with the following requirements:

i) The owner or operator must perform measurements of gaps between the tank wall and the primary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every five years;

ii) The owner or operator must perform measurements of gaps between the tank wall and the secondary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every year;

iii) If a tank ceases to hold hazardous waste for a period of one year or more, subsequent introduction of hazardous waste into the tank must be considered an initial operation for the purposes of subsections (f)(3)(A)(i) and (f)(3)(A)(ii) of this Section;

iv) The owner or operator must determine the total surface area of gaps in the primary seal and in the secondary seal individually using the procedure set forth in subsection (f)(~~4)(D) (f)(~~3)(D) of this Section;

v) In the event that the seal gap measurements do not conform to the specifications in subsection (f)(1)(B) of this Section, the owner or operator must repair the defect in accordance with the requirements of subsection (k) of this Section; and

vi) The owner or operator must maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b);

B) The owner or operator must visually inspect the external floating roof in accordance with the following requirements:

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

ii) The owner or operator must perform an initial inspection of the external floating roof and its closure devices on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator must perform the inspections at least once every year except for the special conditions provided for in subsection (l) of this Section;

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

iv) The owner or operator must maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b);

C) Prior to each inspection required by subsection (f)(3)(A) or (f)(3)(B) of this Section, the owner or operator must notify the Agency in advance of each inspection to provide the Agency with the opportunity to have an observer present during the inspection.

The owner or operator must notify the Agency of the date and location of the inspection as follows:

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

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

iii) When a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator must notify the Agency as soon as possible, but no later than seven calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Regional Administrator at least seven calendar days before refilling the tank;

D) Procedure for determining gaps in the primary seal and in the secondary seal for the purposes of subsection (f)(3)(A)(iv) of this Section:

i) The seal gap measurements must be performed at one or more floating roof levels when the roof is floating off the roof supports;

ii) Seal gaps, if any, must be measured around the entire perimeter of the floating roof in each place where a 0.32-cm

(¼-inch) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the tank and measure the circumferential distance of each such location;

iii) For a seal gap measured under this subsection (f)(3), the gap surface area must be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance; and

iv) The total gap area must be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal diameter of the tank. These total gap areas for the primary seal and secondary seal are then compared to the respective standards for the seal type, as specified in subsection (f)(1)(B) of this Section; and

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

4) Safety devices, as defined in Section 725.981, may be installed and operated as necessary on any tank complying with the requirements of this subsection (f).

g) The owner or operator that controls air pollutant emissions from a tank by venting the tank to a control device must meet the requirements specified in subsections (g)(1) through (g)(3) of this Section.

1) The tank must be covered by a fixed roof and vented directly through a closed-vent system to a control device in accordance with the following requirements:

A) The fixed roof and its closure devices must be designed to form a continuous barrier over the entire surface area of the liquid in the tank;

B) Each opening in the fixed roof not vented to the control device must be equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices must be designed to operate so that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device must be designed to operate with no detectable organic emissions;

C) The fixed roof and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices must include the following: organic vapor permeability; the effects of any contact with the liquid and its vapor managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed; and

D) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 725.988.

2) Whenever a hazardous waste is in the tank, the fixed roof must be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except as follows:

A) Venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times:

i) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for

normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator must promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank; and

ii) To remove accumulated sludge or other residues from the bottom of a tank; and

B) Opening of a safety device, as defined in Section 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.

3) The owner or operator must inspect and monitor the air emission control equipment in accordance with the following procedures:

A) The fixed roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to any of the following: visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices;

B) The closed-vent system and control device must be inspected and monitored by the owner or operator in accordance with the procedures specified in Section 725.988;

C) The owner or operator must perform an initial inspection of the air emission control equipment on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator must perform the inspections at least once every year except for the special conditions provided for in subsection (l) of this Section;

D) In the event that a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (k) of this Section; and

E) The owner or operator must maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).

h) The owner or operator that controls air pollutant emissions by using a pressure tank must meet the following requirements:

1) The tank must be designed not to vent to the atmosphere as a result of compression of the vapor headspace in the tank during filling of the tank to its design capacity;

2) All tank openings must be equipped with closure devices designed to operate with no detectable organic emissions as determined using the procedure specified in Section 725.984(d); and

3) Whenever a hazardous waste is in the tank, the tank must be operated as a closed-vent system that does not vent to the atmosphere, except under either of the following two conditions:

A) The tank does not need to be operated as a closed-vent system at those times when the opening of a safety device, as defined in Section 725.981, is required to avoid an unsafe condition; and

B) The tank does not need to be operated as a closed-vent system at those times when the purging of inerts from the tank is required and the purge stream is routed to a closed-vent system and control device designed and operated in accordance with the requirements of Section 724.987.

i) The owner or operator that controls air pollutant emissions by using an enclosure vented through a closed-vent system to an enclosed combustion control device must meet the requirements specified in subsections (i)(1) through (i)(4) of this Section.

1) The tank must be located inside an enclosure. The enclosure must be designed and operated in accordance with the criteria for a permanent total enclosure, as specified in "Procedure T – Criteria for and Verification of a Permanent or Temporary Total Enclosure" under appendix B to 40 CFR 52.741 (VOM Measurement Techniques for Capture Efficiency), incorporated by reference in 35 Ill. Adm. Code 720.111(b). The enclosure may have permanent or temporary openings to allow worker access;

passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator must perform the verification procedure for the enclosure as specified in Section 5.0 to "Procedure T – Criteria for and Verification of a Permanent or Temporary Total Enclosure" initially when the enclosure is first installed and, thereafter, annually;

2) The enclosure must be vented through a closed-vent system to an enclosed combustion control device that is designed and operated in accordance with the standards for either a vapor incinerator, boiler, or process heater specified in Section 725.988;

3) Safety devices, as defined in Section 725.981, may be installed and operated as necessary on any enclosure, closed-vent system, or control device used to comply with the requirements of subsections (i)(1) and (i)(2) of this Section; and

4) The owner or operator must inspect and monitor the closed-vent system and control device, as specified in Section 725.988.

j) The owner or operator must transfer hazardous waste to a tank subject to this Section in accordance with the following requirements:

1) Transfer of hazardous waste, except as provided in subsection (j)(2) of this Section, to the tank from another tank subject to this Section or from a surface impoundment subject to Section 725.986 must be conducted using continuous hard-piping or another closed system that does not allow exposure of the hazardous waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the requirements of subpart RR of 40 CFR 63 (National Emission Standards for Individual Drain Systems), incorporated by reference in 35 Ill. Adm. Code 720.111(b); and

2) The requirements of subsection (j)(1) of this Section do not apply when transferring a hazardous waste to the tank under any of the following conditions:

A) The hazardous waste meets the average VO concentration conditions specified in Section 725.983(c)(1) at the point of waste

origination;

B) The hazardous waste has been treated by an organic destruction or removal process to meet the requirements in Section 725.983(c)(2); and

C) The hazardous waste meets the requirements of Section 725.983(c)(4).

k) The owner or operator must repair each defect detected during an inspection performed in accordance with the requirements of subsection (c)(4), (e)(3), (f)(3), or (g)(3) of this Section as follows:

1) The owner or operator must make first efforts at repair of the defect no later than five calendar days after detection, and repair must be completed as soon as possible but no later than 45 calendar days after detection except as provided in subsection (k)(2) of this Section; and

2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the hazardous waste normally managed in the tank. In this case, the owner or operator must repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Repair of the defect must be completed before the process or unit resumes operation.

l) Following the initial inspection and monitoring of the cover as required by the applicable provisions of this Subpart CC, subsequent inspection and monitoring may be performed at intervals longer than one year under the following special conditions:

1) Where inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions, then the owner or operator may designate a cover as an "unsafe to inspect and monitor cover" and comply with all of the following requirements:

A) Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required; and

B) Develop and implement a written plan and schedule to inspect and monitor the cover, using the procedures specified in the applicable Section of this Subpart CC, as frequently as practicable during those times when a worker can safely access the cover; and

2) In the case when a tank is buried partially or entirely underground, an owner or operator is required to inspect and monitor, as required by the applicable provisions of this Section, only those portions of the tank cover and those connections to the tank (e.g., fill ports, access hatches, gauge wells, etc.) that are located on or above the ground surface.

(Source: Amended at 37 Ill. Reg. ~~—~~_____, effective _____~~_____~~)

Section 725.987 Standards: Containers

a) The provisions of this Section apply to the control of air pollutant emissions from containers for which Section 725.983(b) references the use of this Section for such air emission control.

b) General requirements~~:~~

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

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

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

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

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

c) Container Level 1 standards~~.~~

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

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

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

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

2) A container used to meet the requirements of subsection (c)(1)(B) or (c)(1)(C) of this Section must be equipped with covers and closure

devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the hazardous waste to the atmosphere and to maintain the equipment integrity for as long as it is in service. Factors to be considered in selecting the materials of construction and designing the cover and closure devices must include the following: the organic vapor permeability; the effects of contact with the hazardous waste or its vapor managed in the container; the effects of outdoor exposure of the closure device or cover material to wind, moisture, and sunlight; and the operating practices for which the container is intended to be used.

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

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

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

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

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

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

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

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

D) Opening of a spring-loaded, pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device that vents to the atmosphere is allowed during normal operations for the purpose of maintaining the container internal pressure in accordance with the design specifications of the container. The device must be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens must be established so that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the owner or operator based on container

manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations; and

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

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

A) In the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility (i.e., it does not meet the conditions for an empty container as specified in 35 Ill. Adm. Code 721.107(b)), the owner or operator must visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection must be conducted on or before the date on which the container is accepted at the facility (i.e., the date when the container becomes subject to the Subpart CC container standards). For the purposes of this requirement, the date of acceptance is the date of signature that the facility owner or operator enters on Item 20 of the Uniform Hazardous Waste Manifest, as set forth in the appendix to 40 CFR 262 (Uniform Hazardous Waste Manifest and Instructions (EPA Forms 8700-22 and 8700-22A and Their Instructions)), incorporated by reference in 35 Ill. Adm. Code 720.111(b), as required under Section 725.171. If a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (c)(4)(C) of this Section;

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

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

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

d) Container Level 2 standards~~.~~

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

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

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

C) A container that has been demonstrated within the preceding 12 months to be vapor-tight by using Method 27 (Determination of Vapor Tightness of Gasoline Delivery Tank Using

Pressure-Vacuum Test) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), in accordance with the procedure specified in subsection (h) of this Section.

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

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

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

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

ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator must promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being

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

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

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

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

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

D) Opening of a spring-loaded, pressure-vacuum relief valve,

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

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

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

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

requirement, the date of acceptance is the date of signature that the facility owner or operator enters on Item 20 of the Uniform Hazardous Waste Manifest, in the appendix to 40 CFR 262 (Uniform Hazardous Waste Manifest and Instructions (USEPA Forms 8700-22 and 8700-22A and Their Instructions)), as required under Section 725.171. If a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (d)(4)(C) of this Section;

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

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

e) Container Level 3 standards~~.~~

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

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

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

2) The owner or operator must meet the following requirements, as applicable to the type of air emission control equipment selected by the owner or operator:

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

B) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 725.988.

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

4) Owners and operators using Container Level 3 controls in accordance with the provisions of this Subpart CC must inspect and monitor the closed-vent systems and control devices, as specified in Section 725.988.

5) Owners and operators that use Container Level 3 controls in accordance with the provisions of this Subpart CC must prepare and maintain the records specified in Section 725.990(d).

6) The transfer of hazardous waste into or out of a container using Container Level 3 controls must be conducted in such a manner as to minimize exposure of the hazardous waste to the atmosphere, to the extent practical

considering the physical properties of the hazardous waste and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that USEPA considers to meet the requirements of this subsection (e)(6) include using any one of the following: the use of a submerged-fill pipe or other submerged-fill method to load liquids into the container; the use of a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or the use of a fitted opening in the top of a container through which the hazardous waste is filled and subsequently purging the transfer line before removing it from the container opening.

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

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

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

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

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

g) To determine compliance with the no detectable organic emissions requirements of subsection (d)(1)(B) of this Section, the procedure specified in Section 725.984(d) must be used.

1) Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the container, its cover, and associated closure devices, as applicable to the container, must be checked. Potential leak interfaces that are associated with containers include, but are not limited to: the interface of the cover rim and the container wall; the periphery of any opening on the container or container cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

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

h) The procedure for determining a container to be vapor-tight using Method 27 for the purpose of complying with subsection (d)(1)(C) of this Section is as follows:

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

2) A pressure measurement device must be used that has a precision of ±2.5 mm (0.10 inch) water and that is capable of measuring above the pressure at which the container is to be tested for vapor tightness; and

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 37 Ill. Reg. ~~—~~ _____, effective _____ ~~_____~~)

Section 725.990 Recordkeeping Requirements

a) Each owner or operator of a facility subject to the requirements in this Subpart CC must record and maintain the information specified in subsections (b) through (j) of this Section, as applicable to the facility. Except for air emission control

equipment design documentation and information required by ~~subsection~~ subsections (i) and (j) of this Section, records required by this Section must be maintained in the operating record for a minimum of three years. Air emission control equipment design documentation must be maintained in the operating record until the air emission control equipment is replaced or is otherwise no longer in service. Information required by subsections (i) and (j) of this Section must be maintained in the operating record for as long as the waste management unit is not using air emission controls specified in Sections 725.985 through 725.988, in accordance with the conditions specified in Section 725.980(d) or (b)(7), respectively.

b) The owner or operator of a tank using air emission controls in accordance with the requirements of Section 725.985 must prepare and maintain records for the tank that include the following information:

1) For each tank using air emission controls in accordance with the requirements of Section 725.985 of this Subpart CC, the owner or operator must record the following information:

A) A tank identification number (or other unique identification description as selected by the owner or operator); and

B) A record for each inspection required by Section 725.985 that includes the following information:

i) Date inspection was conducted; and

ii) For each defect detected during the inspection, the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of Section 725.985, the owner or operator must also record the reason for the delay and the date that completion of repair of the defect is expected; and

2) In addition to the information required by subsection (b)(1) of this Section, the owner or operator must record the following information, as applicable to the tank:

A) The owner or operator using a fixed roof to comply with the Tank Level 1 control requirements specified in Section 725.985(c) must prepare and maintain records for each determination for the maximum organic vapor pressure of the hazardous waste in the tank performed in accordance with the requirements of Section 725.985(c). The records must include the date and time the samples were collected, the analysis method used, and the analysis results;

B) The owner or operator using an internal floating roof to comply with the Tank Level 2 control requirements specified in Section 725.985(e) must prepare and maintain documentation describing the floating roof design;

C) Owners and operators using an external floating roof to comply with the Tank Level 2 control requirements specified in Section 725.985(f) must prepare and maintain the following records:

i) Documentation describing the floating roof design and the dimensions of the tank; and

ii) Records for each seal gap inspection required by Section 725.985(f)(3) describing the results of the seal gap measurements. The records must include the date that the measurements were performed, the raw data obtained for the measurements, and the calculations of the total gap surface area. In the event that the seal gap measurements do not conform to the specifications in Section 725.985(f)(1), the records must include a description of the repairs that were made, the date the repairs were made, and the date the tank was emptied, if necessary.

D) Each owner or operator using an enclosure to comply with the Tank Level 2 control requirements specified in Section 725.985(i) must prepare and maintain the following records:

i) Records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in ~~"~~"Procedure T~~—~~Criteria for and

Verification of a Permanent or Temporary Total Enclosure~~"~~" under appendix B to 40 CFR 52.741 (VOM Measurement Techniques for Capture Efficiency), incorporated by reference in 35 Ill. Adm. Code 720.111(b); and

ii) Records required for the closed-vent system and control device in accordance with the requirements of subsection (e) of this Section.

c) The owner or operator of a surface impoundment using air emission controls in accordance with the requirements of Section 725.986 must prepare and maintain records for the surface impoundment that include the following information:

1) A surface impoundment identification number (or other unique identification description as selected by the owner or operator);

2) Documentation describing the floating membrane cover or cover design, as applicable to the surface impoundment, that includes information prepared by the owner or operator or provided by the cover manufacturer or vendor describing the cover design, and certification by the owner or operator that the cover meets the specifications listed in Section 725.986(c);

3) A record for each inspection required by Section 725.986 that includes the following information:

A) Date inspection was conducted; and

B) For each defect detected during the inspection the following information: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of Section 725.986(f), the owner or operator must also record the reason for the delay and the date that completion of repair of the defect is expected; and

4) For a surface impoundment equipped with a cover and vented through a closed-vent system to a control device, the owner or operator must prepare and maintain the records specified in subsection (e) of this Section.

d) The owner or operator of containers using Container Level 3 air emission controls in accordance with the requirements of Section 725.987 must prepare and maintain records that include the following information:

1) Records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in ~~"~~"Procedure T— Criteria for and Verification of a Permanent or Temporary Total Enclosure~~"~~" under appendix B to 40 CFR 52.741 (VOM Measurement Techniques for Capture Efficiency), incorporated by reference in 35 Ill. Adm. Code 720.111(b); and

2) Records required for the closed-vent system and control device in accordance with the requirements of subsection (e) of this Section.

e) The owner or operator using a closed-vent system and control device in accordance with the requirements of Section 725.988 must prepare and maintain records that include the following information:

1) Documentation for the closed-vent system and control device that includes the following:

A) Certification that is signed and dated by the owner or operator stating that the control device is designed to operate at the performance level documented by a design analysis as specified in subsection (e)(1)(B) of this Section or by performance tests as specified in subsection (e)(1)(C) of this Section when the tank, surface impoundment, or container is or would be operating at capacity or the highest level reasonably expected to occur;

B) If a design analysis is used, then design documentation, as specified in Section 725.935(b)(4). The documentation must include information prepared by the owner or operator or provided by the control device manufacturer or vendor that describes the control device design in accordance with Section 725.935(b)(4)(C) and certification by the owner or operator that the control equipment meets the applicable specifications;

C) If performance tests are used, then a performance test plan as

specified in Section 725.935(b)(3) and all test results;

D) Information as required by Section 725.935(c)(1) and (c)(2), as applicable;

E) An owner or operator must record, on a semiannual basis, the following information for those planned routine maintenance operations that would require the control device not to meet the requirements of Section 725.988(c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable:

i) A description of the planned routine maintenance that is anticipated to be performed for the control device during the next six-month period. This description must include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods; and

ii) A description of the planned routine maintenance that was performed for the control device during the previous six-month period. This description must include the type of maintenance performed and the total number of hours during those six months that the control device did not meet the requirements of Section 725.988(c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable, due to planned routine maintenance;

F) An owner or operator must record the following information for those unexpected control device system malfunctions that would require the control device not to meet the requirements of Section 725.988(c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable:

i) The occurrence and duration of each malfunction of the control device system;

ii) The duration of each period during a malfunction when gases, vapors, or fumes are vented from the waste management unit through the closed-vent system to the control device while the control device is not properly functioning; and

iii) Actions taken during periods of malfunction to restore a malfunctioning control device to its normal or usual manner of operation; and

G) Records of the management of carbon removed from a carbon adsorption system conducted in accordance with Section 725.988(c)(3)(B).

f) The owner or operator of a tank, surface impoundment, or container exempted from standards in accordance with the provisions of Section 725.983(c) must prepare and maintain the following records, as applicable:

1) For tanks, surface impoundments, or containers exempted under the hazardous waste organic concentration conditions specified in Section 725.983 (c)(1) or 725.983(c)(2)(A) through (c)(2)(F), the owner or operator must record the information used for each waste determination (e.g., test results, measurements, calculations, and other documentation) in the facility operating log. If analysis results for waste samples are used for the waste determination, then the owner or operator must record the date, time, and location that each waste sample is collected in accordance with the applicable requirements of Section 725.984; and

2) For tanks, surface impoundments, or containers exempted under the provisions of Section 725.983(c)(2)(G) or (c)(2)(H), the owner or operator must record the identification number for the incinerator, boiler, or industrial furnace in which the hazardous waste is treated.

g) An owner or operator designating a cover as "unsafe to inspect and monitor" pursuant to Section 725.985(l) or 725.986(g) must record in a log that is kept in the facility operating record the following information: the identification numbers for waste management units with covers that are designated as "unsafe to inspect and monitor," the explanation for each cover stating why the cover is unsafe to inspect and monitor, and the plan and schedule for inspecting and monitoring each cover.

h) The owner or operator of a facility that is subject to this Subpart CC and to the control device standards in federal subpart VV of 40 CFR 60 (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry), or subpart V of 40 CFR 61 (National Emission Standard for Equipment Leaks (Fugitive Emission Sources), each incorporated by reference

in 35 Ill. Adm. Code 270.111, may elect to demonstrate compliance with the applicable Sections of this Subpart by documentation either pursuant to this Subpart CC, or pursuant to the provisions of subpart VV of 40 CFR 60 or subpart V of 40 CFR 61, to the extent that the documentation required by 40 CFR 60 or 61 duplicates the documentation required by this Section.

i) For each tank or container not using air emission controls specified in Sections 725.985 through 725.988 in accordance with the conditions specified in Section 725.980(d), the owner or operator must record and maintain the following information:

1) A list of the individual organic peroxide compounds manufactured at the facility that meet the conditions specified in Section 725.980(d)(1);

2) A description of how the hazardous waste containing the organic peroxide compounds identified pursuant to subsection (i)(1) are managed at the facility in tanks and containers. This description must include the following information:

A) For the tanks used at the facility to manage this hazardous waste, sufficient information must be provided to describe each tank: a facility identification number for the tank, the purpose and placement of this tank in the management train of this hazardous waste, and the procedures used to ultimately dispose of the hazardous waste managed in the tanks; and

B) For containers used at the facility to manage this hazardous waste, sufficient information must be provided to describe the following for each container: a facility identification number for the container or group of containers; the purpose and placement of this container or group of containers in the management train of this hazardous waste; and the procedures used to ultimately dispose of the hazardous waste handled in the containers; and

3) An explanation of why managing the hazardous waste containing the organic peroxide compounds identified pursuant to subsection (i)(1) of this Section in the tanks or containers identified pursuant to subsection (i)(2) of this Section would create an undue safety hazard if the air emission controls specified in Sections 725.985 through 725.988 were installed and operated on these waste management units. This explanation must include

the following information:

A) For tanks used at the facility to manage this hazardous waste, sufficient information must be provided to explain: how use of the required air emission controls on the tanks would affect the tank design features and facility operating procedures currently used to prevent an undue safety hazard during the management of this hazardous waste in the tanks; and why installation of safety devices on the required air emission controls, as allowed under this Subpart CC, would not address those situations in which evacuation of tanks equipped with these air emission controls is necessary and consistent with good engineering and safety practices for handling organic peroxides; and

B) For containers used at the facility to manage this hazardous waste, sufficient information must be provided to explain: how use of the required air emission controls on the containers would affect the container design features and handling procedures currently used to prevent an undue safety hazard during management of this hazardous waste in the containers; and why installation of safety devices on the required air emission controls, as allowed under this Subpart CC, would not address those situations in which evacuation of containers equipped with these air emission controls is necessary and consistent with good engineering and safety practices for handling organic peroxides.

j) For each hazardous waste management unit not using air emission controls specified in Sections 725.985 through 725.988 in accordance with the provisions of Section 725.980(b)(7), the owner and operator must record and maintain the following information:

1) The certification that the waste management unit 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; and

2) An identification of the specific federal requirements codified under 40 CFR 60, 61, or 63 with which the waste management unit is in compliance.

~~ILLINOIS REGISTER~~ ~~POLLUTION CONTROL BOARD~~JCAR350725-1309290r01

~~NOTICE OF PROPOSED AMENDMENTS~~

(Source: Amended at 37 Ill. Reg. ~~—~~ _____, effective _____ ~~_____~~)

Document comparison by Workshare Compare on Friday, June 28, 2013 12:07:29 PM

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Rendering set	Standard

Legend:	
Insertion	
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Deletions	149
Moved from	0
Moved to	0
Style change	0
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Total changes	424

EXEMPT

JCAR350725-1309290r01

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

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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].

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

Section 725.984 Waste Determination Procedures

a) Waste determination procedure for volatile organic (VO) concentration of a hazardous waste at the point of waste origination.

1) An owner or operator must determine the average VO concentration at the point of waste origination for each hazardous waste placed in a waste management unit exempted under the provisions of Section 725.983(c)(1) from using air emission controls in accordance with standards specified in Section 725.985 through Section 725.988, as applicable to the waste management unit.

A) An owner or operator must make an initial determination of the average VO concentration of the waste stream before the first time any portion of the material in the hazardous waste stream is placed in a waste management unit exempted under the provisions of Section 725.983(c)(1) from using air emission controls. Thereafter, an owner or operator must make an initial determination of the average VO concentration of the waste stream for each averaging period that a hazardous waste is managed in the unit.

B) An owner or operator must perform a new waste determination whenever changes to the source generating the waste stream are reasonably likely to cause the average VO concentration of the hazardous waste to increase to a level that is equal to or greater than the VO concentration limits specified in Section 725.983(c)(1).

2) For a waste determination that is required by subsection (a)(1) of this Section, the average VO concentration of a hazardous waste at the point of waste origination must be determined using either direct measurement, as specified in subsection (a)(3) of this Section, or by knowledge of the waste, as specified in subsection (a)(4) of this Section.

3) Direct measurement to determine average VO concentration of a hazardous waste at the point of waste origination.

A) Identification. The owner or operator must identify and record the point of waste origination for the hazardous waste.

B) Sampling. Samples of the hazardous waste stream must be collected at the point of waste origination in such a manner that volatilization of organics contained in the waste and in the subsequent sample is minimized and an adequately representative sample is collected and maintained for analysis by the selected method.

i) The averaging period to be used for determining the average VO concentration for the hazardous waste stream on a mass-weighted average basis must be designated and recorded. The averaging period can represent any time interval that the owner or operator determines is appropriate for the hazardous waste stream but must not exceed one year.

ii) A sufficient number of samples, but no fewer than four samples, must be collected for a hazardous waste determination. All of the samples for a given waste determination must be collected within a one-hour period. The average of the four or more sample results constitutes a waste determination for the waste stream. One or more waste determinations may be required to represent the complete range of waste compositions and quantities that occur during the entire averaging period due to normal variations in the operating conditions for the source or process generating the hazardous waste stream. Examples of such normal variations are seasonal variations in waste quantity or fluctuations in ambient temperature.

iii) All samples must be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan must describe the procedure by which representative samples of the hazardous waste stream are collected so that a minimum loss of organics occurs throughout the sample collection and handling process, and by which sample integrity is maintained. A copy of the written sampling plan must be maintained on-site in the facility operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures in Method 25D (Determination of the Volatile Organic Concentration of Waste Samples) in

appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b).

iv) Sufficient information, as specified in the "site sampling plan" required under subsection (a)(3)(B)(iii) of this Section, must be prepared and recorded to document the waste quantity represented by the samples and, as applicable, the operating conditions for the source or process generating the hazardous waste represented by the samples.

C) Analysis. Each collected sample must be prepared and analyzed in accordance with method 25D in appendix A to 40 CFR 60 for the total concentration of volatile organic constituents or using one or more methods when the individual organic compound concentrations are identified and summed and the summed waste concentration accounts for and reflects all organic compounds in the waste with Henry's law constant values at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) (which can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/m^3) at 25° C (77° F). At the owner's or operator's discretion, the owner or operator may adjust test data measured by any appropriate method to discount any contribution to the total volatile organic concentration that is a result of including a compound with a Henry's law constant value of less than 0.1 Y/X at 25°C (77°F). To adjust these data, the measured concentration of each individual chemical constituent contained in the waste is multiplied by the constituent-specific adjustment factor (f_{m25D}). If the owner or operator elects to adjust test data, the adjustment must be made to all individual chemical constituents with a Henry's law constant value greater than or equal to 0.1 Y/X at 25°C contained in the waste. Constituent-specific adjustment factors (f_{m25D}) can be obtained by contacting the USEPA, Waste and Chemical Processes Group, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711. Other test methods may be used if they meet the requirements in subsection (a)(3)(C)(i) or (a)(3)(C)(ii) of this Section and provided the requirement is met to reflect all organic compounds in the waste with Henry's law constant values greater than or equal to 0.1 Y/X (which can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/m^3) at 25°C.

i) Any USEPA standard method that has been validated in accordance with appendix D to 40 CFR 63 (Alternative Validation Procedure for EPA Waste and Wastewater Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b); or

ii) Any other analysis method that has been validated in accordance with the procedures specified in Section 5.1 or 5.3, and the corresponding calculations in Section 6.1 or 6.3, of Method 301 (Field Validation of Pollutant Measurement Methods from Various Waste Media) in appendix A to 40 CFR 63 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b). The data are acceptable if they meet the criteria specified in Section 6.1.5 or 6.3.3 of Method 301. If correction is required under Section 6.3.3 of Method 301, the data are acceptable if the correction factor is within the range 0.7 to 1.30. Other sections of Method 301 are not required.

D) Calculations.

i) The average VO concentration $\overline{C}$ 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:

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

Where:

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

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

n = Total number of waste determinations of the hazardous waste conducted for the averaging period (not to exceed one year)

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

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

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

ii) For the purpose of determining C_i, for individual waste samples analyzed in accordance with subsection (a)(3)(C) of this Section, the owner or operator must account for VO concentrations determined to be below the limit of detection of the analytical method by using the VO concentration determined according to subsection (a)(3)(G) of this Section.

E) Provided that the test method is appropriate for the waste as required under subsection (a)(3)(C) of this Section, the Agency must determine compliance based on the test method used by the owner or operator as recorded pursuant to Section 725.990(f)(1).

F) The quality assurance program elements required under subsections (a)(3)(C)(vi) and (a)(3)(C)(vii) of this Section are as follows:

i) Documentation of site-specific procedures to minimize the loss of compounds due to volatilization, biodegradation, reaction, or sorption during the sample collection, storage, preparation, introduction, and analysis steps.

ii) Measurement of the overall accuracy and precision of the specific procedures.

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

G) VO concentrations below the limit of detection must be considered to be as follows:

i) If Method 25D is used for the analysis, the VO

concentration must be considered to be one-half the blank value determined in the method at Section 4.4 of Method 25D.

ii) If any other analytical method is used, the VO concentration must be considered to be one-half the sum of the limits of detection established for each organic constituent in the waste that has a Henry's law constant value at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) (which can also be expressed as 1.8 x 10-6 atmospheres/gram-mole/m3) at 25° C.

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

4) Use of owner or operator knowledge to determine average VO concentration of a hazardous waste at the point of waste origination.

A) Documentation must be prepared that presents the information used as the basis for the owner's or operator's knowledge of the hazardous waste stream's average VO concentration. Examples of information that may be used as the basis for knowledge include the following: material balances for the source or process generating the hazardous waste stream; constituent-specific chemical test data for the hazardous waste stream from previous testing that are still applicable to the current waste stream; previous test data for other locations managing the same type of waste stream; or other knowledge based on information included in manifests, shipping papers, or waste certification notices.

B) If test data are used as the basis for knowledge, then the owner or operator must document the test method, sampling protocol, and the means by which sampling variability and analytical variability are accounted for in the determination of the average VO concentration. For example, an owner or operator may use organic concentration test data for the hazardous waste stream that are validated in accordance with Method 301 as the basis for knowledge of the waste.

C) An owner or operator using chemical constituent-specific

concentration test data as the basis for knowledge of the hazardous waste may adjust the test data to the corresponding average VO concentration value that would have been obtained had the waste samples been analyzed using Method 25D. To adjust these data, the measured concentration for each individual chemical constituent contained in the waste is multiplied by the appropriate constituent-specific adjustment factor (f_{m25D}).

D) In the event that the Agency and the owner or operator disagree on a determination of the average VO concentration for a hazardous waste stream using knowledge, then the results from a determination of average VO concentration using direct measurement, as specified in subsection (a)(3) of this Section, must be used to establish compliance with the applicable requirements of this Subpart CC. The Agency may perform or request that the owner or operator perform this determination using direct measurement. The owner or operator may choose one or more appropriate methods to analyze each collected sample in accordance with the requirements of subsection (a)(3)(C) of this Section.

b) Waste determination procedures for treated hazardous waste.

1) An owner or operator must perform the applicable waste determination for each treated hazardous waste placed in a waste management unit exempted under the provisions of Section 725.983(c)(2)(A) through (c)(2)(F) from using air emission controls in accordance with the standards specified in Sections 725.985 through 725.988, as applicable to the waste management unit.

A) An owner or operator must make an initial determination of the average VO concentration of the waste stream before the first time any portion of the material in the treated waste stream is placed in the waste management unit exempt under Section 725.983(c)(2), (c)(3), or (c)(4) from using air emission controls. Thereafter, an owner or operator must update the information used for the waste determination at least once every 12 months following the date of the initial waste determination.

B) An owner or operator must perform a new waste determination whenever changes to the process generating or treating the waste stream are reasonably likely to cause the average VO concentration of the hazardous waste to increase to such a level that the

applicable treatment conditions specified in Section 725.983(c)(2), (c)(3), or (c)(4) are not achieved.

2) The owner or operator must designate and record the specific provision in Section 725.983(c)(2) under which the waste determination is being performed. The waste determination for the treated hazardous waste must be performed using the applicable procedures specified in subsections (b)(3) through (b)(9) of this Section.

3) Procedure to determine the average VO concentration of a hazardous waste at the point of waste treatment.

A) Identification. The owner or operator must identify and record the point of waste treatment for the hazardous waste.

B) Sampling. Samples of the hazardous waste stream must be collected at the point of waste treatment in such a manner that volatilization of organics contained in the waste and in the subsequent sample is minimized and an adequately representative sample is collected and maintained for analysis by the selected method.

i) The averaging period to be used for determining the average VO concentration for the hazardous waste stream on a mass-weighted average basis must be designated and recorded. The averaging period can represent any time interval that the owner or operator determines is appropriate for the hazardous waste stream but must not exceed one year.

ii) A sufficient number of samples, but no fewer than four samples, must be collected and analyzed for a hazardous waste determination. All of the samples for a given waste determination must be collected within a one-hour period. The average of the four or more sample results constitutes a waste determination for the hazardous waste stream. One or more waste determinations may be required to represent the complete range of waste compositions and quantities that occur during the entire averaging period due to normal variations in the operating conditions for the process generating or treating the hazardous waste stream. Examples of such normal variations are seasonal variations in waste quantity or fluctuations in ambient temperature.

iii) All samples must be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan must describe the procedure by which representative samples of the hazardous waste stream are collected so that a minimum loss of organics occurs throughout the sample collection and handling process, and by which sample integrity is maintained. A copy of the written sampling plan must be maintained on-site in the facility operating records. An example of an acceptable sample collection and handling procedures for a total organic constituent concentration may be found in Method 25D.

iv) Sufficient information, as specified in the "site sampling plan" required under subsection (a)(3)(B)(iii) of this Section, must be prepared and recorded to document the waste quantity represented by the samples and, as applicable, the operating conditions for the process treating the hazardous waste represented by the samples.

C) Analysis. Each collected sample must be prepared and analyzed in accordance with Method 25D for the total concentration of volatile organic constituents or using one or more methods when the individual organic compound concentrations are identified and summed, and the summed waste concentration accounts for and reflects all organic compounds in the waste with Henry's law constant values at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) (which can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/m^3) at 25°C (75° F). When the owner or operator is making a waste determination for a treated hazardous waste that is to be compared to an average VO concentration at the point of waste origination or the point of waste entry to the treatment system, to determine if the conditions of 35 Ill. Adm. Code 724.982(c)(2)(A) through (c)(2)(F) or Section 725.983(c)(2)(A) through (c)(2)(F) are met, then the waste samples must be prepared and analyzed using the same method or methods as were used in making the initial waste determinations at the point of waste origination or at the point of entry to the treatment system. At the owner's or operator's discretion, the owner or operator may adjust test data obtained by any appropriate method to discount any contribution to the total volatile organic concentration that is a result of including a compound with a

Henry's law constant value less than 0.1 Y/X at 25°C . To adjust these data, the measured concentration of each individual chemical constituent contained in the waste is multiplied by the constituent-specific adjustment factor (f_{m25D}). If the owner or operator elects to adjust test data, the adjustment must be made to all individual chemical constituents with a Henry's law constant value greater than or equal to 0.1 Y/X at 25°C contained in the waste. Constituent-specific adjustment factors (f_{m25D}) can be obtained by contacting the USEPA, Waste and Chemical Processes Group, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711. Other test methods may be used if they meet the requirements in subsection (a)(3)(C)(i) or (a)(3)(C)(ii) of this Section and provided the requirement is met to reflect all organic compounds in the waste with Henry's law constant values greater than or equal to 0.1 Y/X (which can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/m^3) at 25°C.

i) Any USEPA standard method that has been validated in accordance with appendix D to 40 CFR 63, incorporated by reference in 35 Ill. Adm. Code 720.111(b); or

ii) Any other analysis method that has been validated in accordance with the procedures specified in Section 5.1 or 5.3, and the corresponding calculations in Section 6.1 or 6.3, of Method 301 in appendix A to 40 CFR 63, incorporated by reference in 35 Ill. Adm. Code 720.111(b). The data are acceptable if they meet the criteria specified in Section 6.1.5 or 6.3.3 of Method 301. If correction is required under Section 6.3.3 of Method 301, the data are acceptable if the correction factor is within the range 0.7 to 1.30. Other sections of Method 301 are not required.

D) Calculations. The average VO concentration ($\bar{C}$) on a mass-weighted basis must be calculated by using the results for all samples analyzed in accordance with subsection (b)(3)(C) of this Section and the following equation:

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

Where:

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

i = Individual determination "i" of the hazardous waste

n = Total number of waste determinations of the hazardous waste collected for the averaging period (not to exceed one year)

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

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

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

E) Provided that the test method is appropriate for the waste as required under subsection (b)(3)(C) of this Section, compliance must be determined based on the test method used by the owner or operator as recorded pursuant to Section 725.990(f)(1).

4) Procedure to determine the exit concentration limit (C_t) for a treated hazardous waste.

A) The point of waste origination for each hazardous waste treated by the process at the same time must be identified.

B) If a single hazardous waste stream is identified in subsection (b)(4)(A) of this Section, then the exit concentration limit (C_t) must be 500 ppmw.

C) If more than one hazardous waste stream is identified in subsection (b)(4)(A) of this Section, then the average VO concentration of each hazardous waste stream at the point of waste origination must be determined in accordance with the requirements of subsection (a) of this Section. The exit concentration limit (C_t) must be calculated by using the results determined for each individual hazardous waste stream and the following equation:

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

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

$\overline{C}_x$ = Average VO concentration of hazardous waste stream "x" at the point of waste origination, as determined in accordance with the requirements of subsection (a) of this Section, in ppmw.

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

A) The organic reduction efficiency (R) for a treatment process must be determined based on results for a minimum of three consecutive runs.

B) All hazardous waste streams entering the process and all hazardous waste streams exiting the treatment process must be identified. The owner or operator must prepare a sampling plan for measuring

these streams that accurately reflects the retention time of the hazardous waste in the process.

C) For each run, information must be determined for each hazardous waste stream identified in subsection (b)(5)(B) of this Section, using the following procedures:

i) The mass quantity of each hazardous waste stream entering the process (Q_b) and the mass quantity of each hazardous waste stream exiting the process (Q_a) must be determined; and

ii) The average VO concentration at the point of waste origination of each hazardous waste stream entering the process (C_b) during the run must be determined in accordance with the requirements of subsection (a)(3) of this Section. The average VO concentration at the point of waste treatment of each hazardous waste stream exiting the process (C_a) during the run must be determined in accordance with the requirements of subsection (b)(3) of this Section.

D) The waste volatile organic mass flow entering the process (E_b) and the waste volatile organic mass flow exiting the process (E_a) must be calculated by using the results determined in accordance with subsection (b)(5)(C) of this Section and the following equations:

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

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

Where:

E_a = Waste volatile organic mass flow existing 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/yr

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

$\overline{C_{aj}}$ = 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 = Organiz 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 appendix C to 40 CFR 63 (Determination of the Fraction Biodegraded (F_{bio}) in a Biological Treatment Unit), incorporated by reference in 35 Ill. Adm. Code 720.111(b).

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:

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

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^3/hr

k_y = Density of hazardous waste stream "y," in kg/m^3

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

8) Procedure to determine the actual organic mass removal rate (MR) for a treated hazardous waste:

A) The actual organic mass removal rate (MR) must be determined based on results for a minimum of three consecutive runs. The sampling time for each run must be one hour.

B) The waste volatile organic mass flow entering the process (E_b) and the waste volatile organic mass flow exiting the process (E_a) must be determined in accordance with the requirements of subsection (b)(5)(D) of this Section.

C) The actual organic mass removal rate (MR) must be calculated by using the mass flow rate determined in accordance with the requirements of subsection (b)(8)(B) of this Section and the following equation:

$$MR = E_b - E_a$$

Where:

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

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

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

9) Procedure to determine the actual organic mass biodegradation rate

(MR_{bio}) for a treated hazardous waste.

A) The actual organic mass biodegradation rate (MR_{bio}) must be determined based on results for a minimum of three consecutive runs. The sampling time for each run must be one hour.

B) The waste organic mass flow entering the process (E_b) must be determined in accordance with the requirements of subsection (b)(5)(D) of this Section.

C) The fraction of organic biodegraded (F_{bio}) must be determined using the procedure specified in appendix C to 40 CFR 63 (Determination of the Fraction Biodegraded (F_{bio}) in a Biological Treatment Unit), incorporated by reference in 35 Ill. Adm. Code 720.111(b).

D) The actual organic mass biodegradation rate (MR_{bio}) must be calculated by using the mass flow rates and fraction of organic biodegraded, as determined in accordance with the requirements of subsections (b)(9)(B) and (b)(9)(C) of this Section, respectively, and the following equation:

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

Where:

MR_{bio} = Actual organic mass biodegradation rate, in kg/hr
E_b = Waste organic mass flow entering the process, as determined in accordance with the requirements of subsection (b)(5)(D) of this Section, in kg/hr
F_{bio} = Fraction of organic biodegraded, as determined in accordance with the requirements of subsection (b)(9)(C) of this Section, in kg/hr.

c) Procedure to determine the maximum organic vapor pressure of a hazardous waste in a tank.

1) An owner or operator must determine the maximum organic vapor pressure for each hazardous waste placed in a tank using Tank Level 1 controls in accordance with standards specified in Section 725.985(c).

2) An owner or operator must use either direct measurement, as specified in subsection (c)(3) of this Section, or knowledge of the waste, as specified

by subsection (c)(4) of this Section, to determine the maximum organic vapor pressure that is representative of the hazardous waste composition stored or treated in the tank.

3) Direct measurement to determine the maximum organic vapor pressure of a hazardous waste.

A) Sampling. A sufficient number of samples must be collected to be representative of the waste contained in the tank. All samples must be conducted and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan must describe the procedure by which representative samples of the hazardous waste are collected so that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan must be maintained on-site in the facility operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures and may be found in Method 25D.

B) Analysis. Any appropriate one of the following methods may be used to analyze the samples and compute the maximum organic vapor pressure of the hazardous waste:

i) Method 25E (Determination of Vapor Phase Organic Concentration in Waste Samples) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b);

ii) Methods described in API publication 2517 (Evaporative Loss from External Floating-Roof Tanks), incorporated by reference in 35 Ill. Adm. Code 720.111(a);

iii) Methods obtained from standard reference texts;

iv) ASTM Method D 2879-92 (Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope), incorporated by reference in 35 Ill. Adm. Code 720.111(a); or

v) Any other method approved by the Agency.

4) Use of knowledge to determine the maximum organic vapor pressure of the hazardous waste. Documentation must be prepared and recorded that presents the information used as the basis for the owner's or operator's knowledge that the maximum organic vapor pressure of the hazardous waste is less than the maximum vapor pressure limit listed in Section 725.985(b)(1)(A) for the applicable tank design capacity category. An example of information that may be used is documentation that the hazardous waste is generated by a process for which at other locations it previously has been determined by direct measurement that the waste maximum organic vapor pressure is less than the maximum vapor pressure limit for the appropriate tank design capacity category.

d) The procedure for determining no detectable organic emissions for the purpose of complying with this Subpart CC is as follows:

1) The test must be conducted in accordance with the procedures specified in Method 21 (Determination of Volatile Organic Compound Leaks) of appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b). Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the cover and associated closure devices must be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to, any of the following: the interface of the cover and its foundation mounting, the periphery of any opening on the cover and its associated closure device, and the sealing seat interface on a spring-loaded pressure relief valve.

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

3) The detection instrument must meet the performance criteria of Method 21, 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.

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.

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. 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 37 Ill. Reg. _____, effective _____)

Section 725.985 Standards: Tanks

a) The provisions of this Section apply to the control of air pollutant emissions from tanks for which Section 725.983(b) references the use of this Section for such air emission control.

b) The owner or operator must control air pollutant emissions from each tank subject to this Section in accordance with the following requirements, as applicable:

1) For a tank that manages hazardous waste that meets all of the conditions specified in subsections (b)(1)(A) through (b)(1)(C) of this Section, the owner or operator must control air pollutant emissions from the tank in accordance with the Tank Level 1 controls specified in subsection (c) of this Section or the Tank Level 2 controls specified in subsection (d) of this Section.

A) The hazardous waste in the tank has a maximum organic vapor pressure that is less than the maximum organic vapor pressure limit for the tank's design capacity category, as follows:

i) For a tank design capacity equal to or greater than 151 m^3 (5333 ft^3 or 39,887 gal), the maximum organic vapor pressure limit for the tank is 5.2 kPa (0.75 psia or 39 mmHg);

ii) For a tank design capacity equal to or greater than 75 m^3 (2649 ft^3 or 19,810 gal) but less than 151 m^3 (5333 ft^3 or 39,887 gal), the maximum organic vapor pressure limit for the tank is 27.6 kPa (4.0 psia or 207 mmHg); or

iii) For a tank design capacity less than 75 m^3 (2649 ft^3or 19,810 gal), the maximum organic vapor pressure limit for the tank is 76.6 kPa (11.1 psia or 574 mmHg).

B) The hazardous waste in the tank is not heated by the owner or operator to a temperature that is greater than the temperature at which the maximum organic vapor pressure of the hazardous waste is determined for the purpose of complying with subsection (b)(1)(A) of this Section.

C) The hazardous waste in the tank is not treated by the owner or operator using a waste stabilization process, as defined in Section 725.981.

2) For a tank that manages hazardous waste that does not meet all of the conditions specified in subsections (b)(1)(A) through (b)(1)(C) of this Section, the owner or operator must control air pollutant emissions from the tank by using Tank Level 2 controls in accordance with the requirements of subsection (d) of this Section. Examples of tanks required

to use Tank Level 2 controls include the following: a tank used for a waste stabilization process and a tank for which the hazardous waste in the tank has a maximum organic vapor pressure that is equal to or greater than the maximum organic vapor pressure limit for the tank's design capacity category, as specified in subsection (b)(1)(A) of this Section.

c) An owner or operator controlling air pollutant emissions from a tank using Tank Level 1 controls must meet the requirements specified in subsections (c)(1) through (c)(4) of this Section:

1) The owner or operator must determine the maximum organic vapor pressure for a hazardous waste to be managed in the tank using Tank Level 1 controls before the first time the hazardous waste is placed in the tank. The maximum organic vapor pressure must be determined using the procedures specified in Section 725.984(c). Thereafter, the owner or operator must perform a new determination whenever changes to the hazardous waste managed in the tank could potentially cause the maximum organic vapor pressure to increase to a level that is equal to or greater than the maximum organic vapor pressure limit for the tank design capacity category specified in subsection (b)(1)(A) of this Section, as applicable to the tank.

2) The tank must be equipped with a fixed roof designed to meet the following specifications:

A) The fixed roof and its closure devices must be designed to form a continuous barrier over the entire surface area of the hazardous waste in the tank. The fixed roof may be a separate cover installed on the tank (e.g., a removable cover mounted on an open-top tank) or may be an integral part of the tank structural design (e.g., a horizontal cylindrical tank equipped with a hatch).

B) The fixed roof must be installed in such a manner that there are no visible cracks, holes, gaps, or other open spaces between roof section joints or between the interface of the roof edge and the tank wall.

C) Either of the following must be true of each opening in the fixed roof and of any manifold system associated with the fixed roof must be either:

i) The opening or manifold system is equipped with a closure device designed to operate so that when the closure device

is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device; or

ii) The opening or manifold system is connected by a closed-vent system that is vented to a control device. The control device must remove or destroy organics in the vent stream, and it must be operating whenever hazardous waste is managed in the tank, except as provided for in subsection (c)(2)(E).

D) The fixed roof and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and which will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices must include the following: organic vapor permeability; the effects of any contact with the hazardous waste or its vapors managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.

E) The control device operated pursuant to subsection (c)(2)(C) of this Section needs not remove or destroy organics in the vent stream under the following conditions:

i) During periods when it is necessary to provide access to the tank for performing the activities of subsection (c)(2)(E)(ii) of this Section, venting of the vapor headspace underneath the fixed roof to the control device is not required, opening of closure devices is allowed, and removal of the fixed roof is allowed. Following completion of the activity, the owner or operator must promptly secure the closure device in the closed position or reinstall the cover, as applicable, and resume operation of the control device; and

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

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

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

A) Opening of closure devices or removal of the fixed roof is allowed at the following times:

i) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator must promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

ii) To remove accumulated sludge or other residues from the bottom of tank.

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

C) Opening of a safety device, as defined in Section 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.

4) The owner or operator must inspect the air emission control equipment in accordance with the following requirements:

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

B) The owner or operator must perform an initial inspection of the fixed roof and its closure devices on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator must perform the inspections at least once every year, except under the special conditions provided for in subsection (l) of this Section.

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

D) The owner or operator must maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).

d) An owner or operator controlling air pollutant emissions from a tank using Tank Level 2 controls must use one of the following tanks:

1) A fixed-roof tank equipped with an internal floating roof in accordance with the requirements specified in subsection (e) of this Section;

2) A tank equipped with an external floating roof in accordance with the requirements specified in subsection (f) of this Section;

3) A tank vented through a closed-vent system to a control device in accordance with the requirements specified in subsection (g) of this Section;

4) A pressure tank designed and operated in accordance with the

requirements specified in subsection (h) of this Section; or

5) A tank located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device in accordance with the requirements specified in subsection (i) of this Section.

e) The owner or operator that controls air pollutant emissions from a tank using a fixed roof with an internal floating roof must meet the requirements specified in subsections (e)(1) through (e)(3) of this Section.

1) The tank must be equipped with a fixed roof and an internal floating roof in accordance with the following requirements:

A) The internal floating roof must be designed to float on the liquid surface except when the floating roof must be supported by the leg supports.

B) The internal floating roof must be equipped with a continuous seal between the wall of the tank and the floating roof edge that meets either of the following requirements:

i) A single continuous seal that is either a liquid-mounted seal or a metallic shoe seal, as defined in Section 725.981; or

ii) Two continuous seals mounted one above the other. The lower seal may be a vapor-mounted seal.

C) The internal floating roof must meet the following specifications:

i) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface;

ii) Each opening in the internal floating roof must be equipped with a gasketed cover or a gasketed lid except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains;

iii) Each penetration of the internal floating roof for the purpose of sampling must have a slit fabric cover that covers at least 90 percent of the opening;

iv) Each automatic bleeder vent and rim space vent must be gasketed;

v) Each penetration of the internal floating roof that allows for passage of a ladder must have a gasketed sliding cover; and

vi) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof must have a flexible fabric sleeve seal or a gasketed sliding cover.

2) The owner or operator must operate the tank in accordance with the following requirements:

A) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling must be continuous and must be completed as soon as practical;

B) Automatic bleeder vents are to be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports; and

C) Prior to filling the tank, each cover, access hatch, gauge float well or lid on any opening in the internal floating roof must be bolted or fastened closed (i.e., no visible gaps). Rim space vents are to be set to open only when the internal floating roof is not floating or when the pressure beneath the rim exceeds the manufacturer's recommended setting.

3) The owner or operator must inspect the internal floating roof in accordance with the procedures specified as follows:

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

B) The owner or operator must inspect the internal floating roof

components as follows, except as provided in subsection (e)(3)(C) of this Section:

i) Visually inspect the internal floating roof components through openings on the fixed roof (e.g., manholes and roof hatches) at least once every 12 months after initial fill, and

ii) Visually inspect the internal floating roof, primary seal, secondary seal (if one is in service), gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least once every 10 years;

C) As an alternative to performing the inspections specified in subsection (e)(3)(B) of this Section for an internal floating roof equipped with two continuous seals mounted one above the other, the owner or operator may visually inspect the internal floating roof, primary and secondary seals, gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least every five years;

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

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

ii) When a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator must notify the Agency as soon as possible, but no later than seven calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification,

including the explanation for the unplanned inspection, may be sent so that it is received by the Regional Administrator at least seven calendar days before refilling the tank;

E) In the event that a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (k) of this Section; and

F) The owner or operator must maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).

4) Safety devices, as defined in Section 725.981, may be installed and operated as necessary on any tank complying with the requirements of this subsection (e).

f) The owner or operator that controls air pollutant emissions from a tank using an external floating roof must meet the requirements specified in subsections (f)(1) through (f)(3) of this Section.

1) The owner or operator must design the external floating roof in accordance with the following requirements:

A) The external floating roof must be designed to float on the liquid surface except when the floating roof must be supported by the leg supports;

B) The floating roof must be equipped with two continuous seals, one above the other, between the wall of the tank and the roof edge. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.

i) The primary seal must be a liquid-mounted seal or a metallic shoe seal, as defined in Section 725.981. The total area of the gaps between the tank wall and the primary seal must not exceed 212 square centimeters (cm^2) per meter (10.0 in^2 per foot) of tank diameter, and the width of any portion of these gaps must not exceed 3.8 centimeters (cm) (1.5 inches). If a metallic shoe seal is used for the primary seal, the metallic shoe seal must be designed so that one end extends into the liquid in the tank and the other end extends a vertical distance of at least 61 centimeters (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 cm^2 per meter (1.0 in^2 per foot) of tank diameter, and the width of any portion of these gaps must not exceed 1.3 cm (0.5 inch); and

C) The external floating roof must meet the following specifications:

i) Except for automatic bleeder vents (vacuum breaker vents) and rim space vents, each opening in a noncontact external floating roof must provide a projection below the liquid surface;

ii) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof must be equipped with a gasketed cover, seal, or lid;

iii) Each access hatch and each gauge float well must be equipped with a cover designed to be bolted or fastened when the cover is secured in the closed position;

iv) Each automatic bleeder vent and each rim space vent must be equipped with a gasket;

v) Each roof drain that empties into the liquid managed in the tank must be equipped with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening;

vi) Each unslotted and slotted guide pole well must be equipped with a gasketed sliding cover or a flexible fabric sleeve seal;

vii) Each unslotted guide pole must be equipped with a gasketed cap on the end of the pole;

viii) Each slotted guide pole must be equipped with a gasketed float or other device that closes off the liquid surface from the atmosphere; and

ix) Each gauge hatch and each sample well must be equipped with a gasketed cover.

2) The owner or operator must operate the tank in accordance with the following requirements:

A) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling must be continuous and must be completed as soon as practical;

B) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof must be secured and maintained in a closed position at all times except when the closure device must be open for access;

C) Covers on each access hatch and each gauge float well must be bolted or fastened when secured in the closed position;

D) Automatic bleeder vents must be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports;

E) Rim space vents must be set to open only at those times that the roof is being floated off the roof leg supports or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting;

F) The cap on the end of each unslotted guide pole must be secured in the closed position at all times except when measuring the level or collecting samples of the liquid in the tank;

G) The cover on each gauge hatch or sample well must be secured in the closed position at all times except when the hatch or well must be opened for access; and

H) Both the primary seal and the secondary seal must completely cover the annular space between the external floating roof and the wall of the tank in a continuous fashion except during inspections.

3) The owner or operator must inspect the external floating roof in accordance with the procedures specified as follows:

A) The owner or operator must measure the external floating roof seal

gaps in accordance with the following requirements:

i) The owner or operator must perform measurements of gaps between the tank wall and the primary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every five years;

ii) The owner or operator must perform measurements of gaps between the tank wall and the secondary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every year;

iii) If a tank ceases to hold hazardous waste for a period of one year or more, subsequent introduction of hazardous waste into the tank must be considered an initial operation for the purposes of subsections (f)(3)(A)(i) and (f)(3)(A)(ii) of this Section;

iv) The owner or operator must determine the total surface area of gaps in the primary seal and in the secondary seal individually using the procedure set forth in subsection (f)(3)(D)~~(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; and

vi) The owner or operator must maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b);

B) The owner or operator must visually inspect the external floating roof in accordance with the following requirements:

i) The floating roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to any of the following: holes, tears, or other openings in the rim seal or seal fabric of the floating roof; a rim seal detached from the floating roof; all or a portion of

the floating roof deck being submerged below the surface of the liquid in the tank; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices;

ii) The owner or operator must perform an initial inspection of the external floating roof and its closure devices on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator must perform the inspections at least once every year except for the special conditions provided for in subsection (l) of this Section;

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

iv) The owner or operator must maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b);

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

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

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

iii) When a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator must notify the Agency as soon as possible, but no later than seven calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Regional Administrator at least seven calendar days before refilling the tank;

D) Procedure for determining gaps in the primary seal and in the secondary seal for the purposes of subsection (f)(3)(A)(iv) of this Section:

i) The seal gap measurements must be performed at one or more floating roof levels when the roof is floating off the roof supports;

ii) Seal gaps, if any, must be measured around the entire perimeter of the floating roof in each place where a 0.32-cm (¼-inch) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the tank and measure the circumferential distance of each such location;

iii) For a seal gap measured under this subsection (f)(3), the gap surface area must be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance; and

iv) The total gap area must be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal diameter of the tank. These total gap areas for the primary seal and secondary seal are then compared to the respective standards for the seal type, as specified in subsection (f)(1)(B) of this Section; and.

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

4) Safety devices, as defined in Section 725.981, may be installed and operated as necessary on any tank complying with the requirements of this subsection (f).

g) The owner or operator that controls air pollutant emissions from a tank by venting the tank to a control device must meet the requirements specified in subsections (g)(1) through (g)(3) of this Section.

1) The tank must be covered by a fixed roof and vented directly through a closed-vent system to a control device in accordance with the following requirements:

A) The fixed roof and its closure devices must be designed to form a continuous barrier over the entire surface area of the liquid in the tank;

B) Each opening in the fixed roof not vented to the control device must be equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices must be designed to operate so that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device must be designed to operate with no detectable organic emissions;

C) The fixed roof and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices must include the following: organic vapor permeability; the effects of any contact with the liquid and its vapor managed in the tank; the

effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed; and

D) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 725.988.

2) Whenever a hazardous waste is in the tank, the fixed roof must be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except as follows:

A) Venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times:

i) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator must promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank; and

ii) To remove accumulated sludge or other residues from the bottom of a tank; and

B) Opening of a safety device, as defined in Section 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.

3) The owner or operator must inspect and monitor the air emission control equipment in accordance with the following procedures:

A) The fixed roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to any of the following: visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices;

B) The closed-vent system and control device must be inspected and monitored by the owner or operator in accordance with the procedures specified in Section 725.988;

C) The owner or operator must perform an initial inspection of the air emission control equipment on or before the date that the tank becomes subject to this Section. Thereafter, the owner or operator must perform the inspections at least once every year except for the special conditions provided for in subsection (l) of this Section;

D) In the event that a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (k) of this Section; and

E) The owner or operator must maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).

h) The owner or operator that controls air pollutant emissions by using a pressure tank must meet the following requirements:

1) The tank must be designed not to vent to the atmosphere as a result of compression of the vapor headspace in the tank during filling of the tank to its design capacity;

2) All tank openings must be equipped with closure devices designed to operate with no detectable organic emissions as determined using the procedure specified in Section 725.984(d); and

3) Whenever a hazardous waste is in the tank, the tank must be operated as a closed-vent system that does not vent to the atmosphere, except under either of the following two conditions:

A) The tank does not need to be operated as a closed-vent system at those times when the opening of a safety device, as defined in Section 725.981, is required to avoid an unsafe condition; and

B) The tank does not need to be operated as a closed-vent system at those times when the purging of inerts from the tank is required and the purge stream is routed to a closed-vent system and control device designed and operated in accordance with the requirements of Section 724.987.

i) The owner or operator that controls air pollutant emissions by using an enclosure vented through a closed-vent system to an enclosed combustion control device must meet the requirements specified in subsections (i)(1) through (i)(4) of this Section.

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

2) The enclosure must be vented through a closed-vent system to an enclosed combustion control device that is designed and operated in accordance with the standards for either a vapor incinerator, boiler, or process heater specified in Section 725.988;

3) Safety devices, as defined in Section 725.981, may be installed and operated as necessary on any enclosure, closed-vent system, or control device used to comply with the requirements of subsections (i)(1) and (i)(2) of this Section; and

4) The owner or operator must inspect and monitor the closed-vent system and control device, as specified in Section 725.988.

j) The owner or operator must transfer hazardous waste to a tank subject to this Section in accordance with the following requirements:

1) Transfer of hazardous waste, except as provided in subsection (j)(2) of this Section, to the tank from another tank subject to this Section or from a surface impoundment subject to Section 725.986 must be conducted using continuous hard-piping or another closed system that does not allow exposure of the hazardous waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the requirements of subpart RR of 40

CFR 63(National Emission Standards for Individual Drain Systems), incorporated by reference in 35 Ill. Adm. Code 720.111(b); and

2) The requirements of subsection (j)(1) of this Section do not apply when transferring a hazardous waste to the tank under any of the following conditions:

A) The hazardous waste meets the average VO concentration conditions specified in Section 725.983(c)(1) at the point of waste origination;

B) The hazardous waste has been treated by an organic destruction or removal process to meet the requirements in Section 725.983(c)(2); and

C) The hazardous waste meets the requirements of Section 725.983(c)(4).

k) The owner or operator must repair each defect detected during an inspection performed in accordance with the requirements of subsection (c)(4), (e)(3), (f)(3), or (g)(3) of this Section as follows:

1) The owner or operator must make first efforts at repair of the defect no later than five calendar days after detection, and repair must be completed as soon as possible but no later than 45 calendar days after detection except as provided in subsection (k)(2) of this Section; and

2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the hazardous waste normally managed in the tank. In this case, the owner or operator must repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Repair of the defect must be completed before the process or unit resumes operation.

l) Following the initial inspection and monitoring of the cover as required by the applicable provisions of this Subpart CC, subsequent inspection and monitoring may be performed at intervals longer than one year under the following special conditions:

1) Where inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions, then the owner or

operator may designate a cover as an "unsafe to inspect and monitor cover" and comply with all of the following requirements:

A) Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required; and

B) Develop and implement a written plan and schedule to inspect and monitor the cover, using the procedures specified in the applicable Section of this Subpart CC, as frequently as practicable during those times when a worker can safely access the cover; and

2) In the case when a tank is buried partially or entirely underground, an owner or operator is required to inspect and monitor, as required by the applicable provisions of this Section, only those portions of the tank cover and those connections to the tank (e.g., fill ports, access hatches, gauge wells, etc.) that are located on or above the ground surface.

(Source: Amended at 37 Ill. Reg. _____, effective _____)

Section 725.987 Standards: Containers

a) The provisions of this Section apply to the control of air pollutant emissions from containers for which Section 725.983(b) references the use of this Section for such air emission control.

b) General requirements.

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

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

B) For a container having a design capacity greater than 0.46 m^3 (120 gal) that is not in light material service, the owner or operator must control air pollutant emissions from the container in accordance

with the Container Level 1 standards specified in subsection (c) of this Section; and

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

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

c) Container Level 1 standards.

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

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

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

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

2) A container used to meet the requirements of subsection (c)(1)(B) or (c)(1)(C) of this Section must be equipped with covers and closure

devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the hazardous waste to the atmosphere and to maintain the equipment integrity for as long as it is in service. Factors to be considered in selecting the materials of construction and designing the cover and closure devices must include the following: the organic vapor permeability; the effects of contact with the hazardous waste or its vapor managed in the container; the effects of outdoor exposure of the closure device or cover material to wind, moisture, and sunlight; and the operating practices for which the container is intended to be used.

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

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

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

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

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

i) For the purpose of meeting the requirements of this

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

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

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

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

devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations; and

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

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

A) In the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility (i.e., it does not meet the conditions for an empty container as specified in 35 Ill. Adm. Code 721.107(b)), the owner or operator must visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection must be conducted on or before the date on which the container is accepted at the facility (i.e., the date when the container becomes subject to the Subpart CC container standards). For the purposes of this requirement, the date of acceptance is the date of signature that the facility owner or operator enters on Item 20 of the Uniform Hazardous Waste Manifest, as set forth in the appendix to 40 CFR 262 (Uniform Hazardous Waste Manifest and Instructions (EPA Forms 8700-22 and 8700-22A and Their Instructions)), incorporated by reference in 35 Ill. Adm. Code 720.111(b), as required under Section 725.171. If a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (c)(4)(C) of this Section;

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

requirements of subsection (c)(4)(C) of this Section; and

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

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

d) Container Level 2 standards.

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

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

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

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

2) Transfer of hazardous waste into or out of a container using Container Level 2 controls must be conducted in such a manner as to minimize exposure of the hazardous waste to the atmosphere, to the extent practical, considering the physical properties of the hazardous waste and good engineering and safety practices for handling flammable, ignitable, explosive, reactive or other hazardous materials. Examples of container

loading procedures that the USEPA considers to meet the requirements of this subsection (d)(2) include using any one of the following: a submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous waste is filled and subsequently purging the transfer line before removing it from the container opening.

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

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

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

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

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

i) For the purpose of meeting the requirements of this Section, an empty container as defined in 35 Ill. Adm. Code 721.107(b) may be open to the atmosphere at any

time (i.e., covers and closure devices are not required to be secured in the closed position on an empty container); and

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

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

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

the container as a result of loading operations or diurnal ambient temperature fluctuations; and

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

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

A) In the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility (i.e., it does not meet the conditions for an empty container as specified in 35 Ill. Adm. Code 721.107(b)), the owner or operator must visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection must be conducted on or before the date on which the container is accepted at the facility (i.e., the date when the container becomes subject to the Subpart CC container standards). For the purposes of this requirement, the date of acceptance is the date of signature that the facility owner or operator enters on Item 20 of the Uniform Hazardous Waste Manifest, in the appendix to 40 CFR 262 (Uniform Hazardous Waste Manifest and Instructions (USEPA Forms 8700-22 and 8700-22A and Their Instructions)), as required under Section 725.171. If a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (d)(4)(C) of this Section;

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

C) When a defect is detected in the container, cover, or closure

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

e) Container Level 3 standards.

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

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

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

2) The owner or operator must meet the following requirements, as applicable to the type of air emission control equipment selected by the owner or operator:

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

B) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 725.988.

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

4) Owners and operators using Container Level 3 controls in accordance with the provisions of this Subpart CC must inspect and monitor the closed-vent systems and control devices, as specified in Section 725.988.

5) Owners and operators that use Container Level 3 controls in accordance with the provisions of this Subpart CC must prepare and maintain the records specified in Section 725.990(d).

6) The transfer of hazardous waste into or out of a container using Container Level 3 controls must be conducted in such a manner as to minimize exposure of the hazardous waste to the atmosphere, to the extent practical considering the physical properties of the hazardous waste and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that USEPA considers to meet the requirements of this subsection (e)(6) include using any one of the following: the use of a submerged-fill pipe or other submerged-fill method to load liquids into the container; the use of a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or the use of a fitted opening in the top of a container through which the hazardous waste is filled and subsequently purging the transfer line before removing it from the container opening.

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

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

2) Hazardous waste is managed in the container in accordance with the applicable requirements specified by USDOT in subpart B of 49 CFR 107 (Exemptions), 49 CFR 172 (Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements), 49 CFR 173(Shippers – General

Requirements for Shipments and Packages), and 49 CFR 180(Continuing Qualification and Maintenance of Packagings), each incorporated by reference in 35 Ill. Adm. Code 720.111(b);

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

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

g) To determine compliance with the no detectable organic emissions requirements of subsection (d)(1)(B) of this Section, the procedure specified in Section 725.984(d) must be used.

1) Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the container, its cover, and associated closure devices, as applicable to the container, must be checked. Potential leak interfaces that are associated with containers include, but are not limited to: the interface of the cover rim and the container wall; the periphery of any opening on the container or container cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

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

h) The procedure for determining a container to be vapor-tight using Method 27 for the purpose of complying with subsection (d)(1)(C) of this Section is as follows:

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

2) A pressure measurement device must be used that has a precision of ±2.5 mm (0.10 inch) water and that is capable of measuring above the pressure at which the container is to be tested for vapor tightness; and

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 37 Ill. Reg. _____, effective _____)

Section 725.990 Recordkeeping Requirements

a) Each owner or operator of a facility subject to the requirements in this Subpart CC must record and maintain the information specified in subsections (b) through (j) of this Section, as applicable to the facility. Except for air emission control equipment design documentation and information required by subsections (i) and~~subsection~~ (j) of this Section, records required by this Section must be maintained in the operating record for a minimum of three years. Air emission control equipment design documentation must be maintained in the operating record until the air emission control equipment is replaced or is otherwise no longer in service. Information required by subsections (i) and (j) of this Section must be maintained in the operating record for as long as the waste management unit is not using air emission controls specified in Sections 725.985 through 725.988, in accordance with the conditions specified in Section 725.980(d) or (b)(7), respectively.

b) The owner or operator of a tank using air emission controls in accordance with the requirements of Section 725.985 must prepare and maintain records for the tank that include the following information:

1) For each tank using air emission controls in accordance with the requirements of Section 725.985 of this Subpart CC, the owner or operator must record the following information:

A) A tank identification number (or other unique identification description as selected by the owner or operator); and

B) A record for each inspection required by Section 725.985 that includes the following information:

i) Date inspection was conducted; and

ii) For each defect detected during the inspection, the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of Section 725.985, the

owner or operator must also record the reason for the delay and the date that completion of repair of the defect is expected; and

2) In addition to the information required by subsection (b)(1) of this Section, the owner or operator must record the following information, as applicable to the tank:

A) The owner or operator using a fixed roof to comply with the Tank Level 1 control requirements specified in Section 725.985(c) must prepare and maintain records for each determination for the maximum organic vapor pressure of the hazardous waste in the tank performed in accordance with the requirements of Section 725.985(c). The records must include the date and time the samples were collected, the analysis method used, and the analysis results;

B) The owner or operator using an internal floating roof to comply with the Tank Level 2 control requirements specified in Section 725.985(e) must prepare and maintain documentation describing the floating roof design;

C) Owners and operators using an external floating roof to comply with the Tank Level 2 control requirements specified in Section 725.985(f) must prepare and maintain the following records:

i) Documentation describing the floating roof design and the dimensions of the tank; and

ii) Records for each seal gap inspection required by Section 725.985(f)(3) describing the results of the seal gap measurements. The records must include the date that the measurements were performed, the raw data obtained for the measurements, and the calculations of the total gap surface area. In the event that the seal gap measurements do not conform to the specifications in Section 725.985(f)(1), the records must include a description of the repairs that were made, the date the repairs were made, and the date the tank was emptied, if necessary.

D) Each owner or operator using an enclosure to comply with the Tank Level 2 control requirements specified in Section 725.985(i) must prepare and maintain the following records:

i) Records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in "Procedure T–Criteria for and Verification of a Permanent or Temporary Total Enclosure" under appendix B to 40 CFR 52.741 (VOM Measurement Techniques for Capture Efficiency), incorporated by reference in 35 Ill. Adm. Code 720.111(b); and

ii) Records required for the closed-vent system and control device in accordance with the requirements of subsection (e) of this Section.

c) The owner or operator of a surface impoundment using air emission controls in accordance with the requirements of Section 725.986 must prepare and maintain records for the surface impoundment that include the following information:

1) A surface impoundment identification number (or other unique identification description as selected by the owner or operator);

2) Documentation describing the floating membrane cover or cover design, as applicable to the surface impoundment, that includes information prepared by the owner or operator or provided by the cover manufacturer or vendor describing the cover design, and certification by the owner or operator that the cover meets the specifications listed in Section 725.986(c);

3) A record for each inspection required by Section 725.986 that includes the following information:

A) Date inspection was conducted; and

B) For each defect detected during the inspection the following information: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of Section 725.986(f), the owner or operator must also record the reason for the delay and the date that completion of repair of the defect is expected; and

4) For a surface impoundment equipped with a cover and vented through a closed-vent system to a control device, the owner or operator must prepare

and maintain the records specified in subsection (e) of this Section.

d) The owner or operator of containers using Container Level 3 air emission controls in accordance with the requirements of Section 725.987 must prepare and maintain records that include the following information:

1) Records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in "Procedure T – Criteria for and Verification of a Permanent or Temporary Total Enclosure" under appendix B to 40 CFR 52.741 (VOM Measurement Techniques for Capture Efficiency), incorporated by reference in 35 Ill. Adm. Code 720.111(b); and

2) Records required for the closed-vent system and control device in accordance with the requirements of subsection (e) of this Section.

e) The owner or operator using a closed-vent system and control device in accordance with the requirements of Section 725.988 must prepare and maintain records that include the following information:

1) Documentation for the closed-vent system and control device that includes the following:

A) Certification that is signed and dated by the owner or operator stating that the control device is designed to operate at the performance level documented by a design analysis as specified in subsection (e)(1)(B) of this Section or by performance tests as specified in subsection (e)(1)(C) of this Section when the tank, surface impoundment, or container is or would be operating at capacity or the highest level reasonably expected to occur;

B) If a design analysis is used, then design documentation, as specified in Section 725.935(b)(4). The documentation must include information prepared by the owner or operator or provided by the control device manufacturer or vendor that describes the control device design in accordance with Section 725.935(b)(4)(C) and certification by the owner or operator that the control equipment meets the applicable specifications;

C) If performance tests are used, then a performance test plan as specified in Section 725.935(b)(3) and all test results;

D) Information as required by Section 725.935(c)(1) and (c)(2), as applicable;

E) An owner or operator must record, on a semiannual basis, the following information for those planned routine maintenance operations that would require the control device not to meet the requirements of Section 725.988(c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable:

i) A description of the planned routine maintenance that is anticipated to be performed for the control device during the next six-month period. This description must include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods; and

ii) A description of the planned routine maintenance that was performed for the control device during the previous six-month period. This description must include the type of maintenance performed and the total number of hours during those six months that the control device did not meet the requirements of Section 725.988(c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable, due to planned routine maintenance;

F) An owner or operator must record the following information for those unexpected control device system malfunctions that would require the control device not to meet the requirements of Section 725.988(c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable:

i) The occurrence and duration of each malfunction of the control device system;

ii) The duration of each period during a malfunction when gases, vapors, or fumes are vented from the waste management unit through the closed-vent system to the control device while the control device is not properly functioning; and

iii) Actions taken during periods of malfunction to restore a malfunctioning control device to its normal or usual manner of operation; and

G) Records of the management of carbon removed from a carbon

adsorption system conducted in accordance with Section 725.988(c)(3)(B).

f) The owner or operator of a tank, surface impoundment, or container exempted from standards in accordance with the provisions of Section 725.983(c) must prepare and maintain the following records, as applicable:

1) For tanks, surface impoundments, or containers exempted under the hazardous waste organic concentration conditions specified in Section 725.983(c)(1) or 725.983(c)(2)(A) through (c)(2)(F), the owner or operator must record the information used for each waste determination (e.g., test results, measurements, calculations, and other documentation) in the facility operating log. If analysis results for waste samples are used for the waste determination, then the owner or operator must record the date, time, and location that each waste sample is collected in accordance with the applicable requirements of Section 725.984; and

2) For tanks, surface impoundments, or containers exempted under the provisions of Section 725.983(c)(2)(G) or (c)(2)(H), the owner or operator must record the identification number for the incinerator, boiler, or industrial furnace in which the hazardous waste is treated.

g) An owner or operator designating a cover as "unsafe to inspect and monitor" pursuant to Section 725.985(l) or 725.986(g) must record in a log that is kept in the facility operating record the following information: the identification numbers for waste management units with covers that are designated as "unsafe to inspect and monitor," the explanation for each cover stating why the cover is unsafe to inspect and monitor, and the plan and schedule for inspecting and monitoring each cover.

h) The owner or operator of a facility that is subject to this Subpart CC and to the control device standards in federal subpart VV of 40 CFR 60 (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry), or subpart V of 40 CFR 61 (National Emission Standard for Equipment Leaks (Fugitive Emission Sources), each incorporated by reference in 35 Ill. Adm. Code 270.111, may elect to demonstrate compliance with the applicable Sections of this Subpart by documentation either pursuant to this Subpart CC, or pursuant to the provisions of subpart VV of 40 CFR 60 or subpart V of 40 CFR 61, to the extent that the documentation required by 40 CFR 60 or 61 duplicates the documentation required by this Section.

i) For each tank or container not using air emission controls specified in Sections 725.985 through 725.988 in accordance with the conditions specified in Section

725.980(d), the owner or operator must record and maintain the following information:

1) A list of the individual organic peroxide compounds manufactured at the facility that meet the conditions specified in Section 725.980(d)(1);

2) A description of how the hazardous waste containing the organic peroxide compounds identified pursuant to subsection (i)(1) are managed at the facility in tanks and containers. This description must include the following information:

   A) For the tanks used at the facility to manage this hazardous waste, sufficient information must be provided to describe each tank: a facility identification number for the tank, the purpose and placement of this tank in the management train of this hazardous waste, and the procedures used to ultimately dispose of the hazardous waste managed in the tanks; and

   B) For containers used at the facility to manage this hazardous waste, sufficient information must be provided to describe the following for each container: a facility identification number for the container or group of containers; the purpose and placement of this container or group of containers in the management train of this hazardous waste; and the procedures used to ultimately dispose of the hazardous waste handled in the containers; and

3) An explanation of why managing the hazardous waste containing the organic peroxide compounds identified pursuant to subsection (i)(1) of this Section in the tanks or containers identified pursuant to subsection (i)(2) of this Section would create an undue safety hazard if the air emission controls specified in Sections 725.985 through 725.988 were installed and operated on these waste management units. This explanation must include the following information:

   A) For tanks used at the facility to manage this hazardous waste, sufficient information must be provided to explain: how use of the required air emission controls on the tanks would affect the tank design features and facility operating procedures currently used to prevent an undue safety hazard during the management of this hazardous waste in the tanks; and why installation of safety devices on the required air emission controls, as allowed under this Subpart CC, would not address those situations in which evacuation of tanks equipped with these air emission controls is

necessary and consistent with good engineering and safety practices for handling organic peroxides; and

B) For containers used at the facility to manage this hazardous waste, sufficient information must be provided to explain: how use of the required air emission controls on the containers would affect the container design features and handling procedures currently used to prevent an undue safety hazard during management of this hazardous waste in the containers; and why installation of safety devices on the required air emission controls, as allowed under this Subpart CC, would not address those situations in which evacuation of containers equipped with these air emission controls is necessary and consistent with good engineering and safety practices for handling organic peroxides.

j) For each hazardous waste management unit not using air emission controls specified in Sections 725.985 through 725.988 in accordance with the provisions of Section 725.980(b)(7), the owner and operator must record and maintain the following information:

1) The certification that the waste management unit 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; and

2) An identification of the specific federal requirements codified under 40 CFR 60, 61, or 63 with which the waste management unit is in compliance.

(Source: Amended at 37 Ill. Reg. _____, effective _____)