

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

- 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. Code 725
- 3)

<u>Section Numbers:</u>	<u>Proposed Action:</u>
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.

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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:

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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

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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

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- 725.214 Disposal or Decontamination of Equipment, Structures, and Soils
- 725.215 Certification of Closure
- 725.216 Survey Plat
- 725.217 Post-Closure Care and Use of Property
- 725.218 Post-Closure Care Plan; Amendment of Plan
- 725.219 Post-Closure Notices
- 725.220 Certification of Completion of Post-Closure Care
- 725.221 Alternative Post-Closure Care Requirements

SUBPART H: FINANCIAL REQUIREMENTS

- Section
- 725.240 Applicability
- 725.241 Definitions of Terms as Used in this Subpart H
- 725.242 Cost Estimate for Closure
- 725.243 Financial Assurance for Closure
- 725.244 Cost Estimate for Post-Closure Care
- 725.245 Financial Assurance for Post-Closure Monitoring and Maintenance
- 725.246 Use of a Mechanism for Financial Assurance of Both Closure and Post-Closure Care
- 725.247 Liability Requirements
- 725.248 Incapacity of Owners or Operators, Guarantors, or Financial Institutions
- 725.251 Promulgation of Forms (Repealed)

SUBPART I: USE AND MANAGEMENT OF CONTAINERS

- Section
- 725.270 Applicability
- 725.271 Condition of Containers
- 725.272 Compatibility of Waste with Containers
- 725.273 Management of Containers
- 725.274 Inspections
- 725.276 Special Requirements for Ignitable or Reactive Wastes
- 725.277 Special Requirements for Incompatible Wastes
- 725.278 Air Emission Standards

SUBPART J: TANK SYSTEMS

- Section
- 725.290 Applicability

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725.291	Assessment of Existing Tank System Integrity
725.292	Design and Installation of New Tank Systems or Components
725.293	Containment and Detection of Releases
725.294	General Operating Requirements
725.295	Inspections
725.296	Response to Leaks or Spills and Disposition of Tank Systems
725.297	Closure and Post-Closure Care
725.298	Special Requirements for Ignitable or Reactive Wastes
725.299	Special Requirements for Incompatible Wastes
725.300	Waste Analysis and Trial Tests
725.301	Generators of 100 to 1,000 Kilograms of Hazardous Waste Per Month
725.302	Air Emission Standards

SUBPART K: SURFACE IMPOUNDMENTS

Section	
725.320	Applicability
725.321	Design and Operating Requirements
725.322	Action Leakage Rate
725.323	Containment System
725.324	Response Actions
725.325	Waste Analysis and Trial Tests
725.326	Monitoring and Inspections
725.328	Closure and Post-Closure Care
725.329	Special Requirements for Ignitable or Reactive Wastes
725.330	Special Requirements for Incompatible Wastes
725.331	Air Emission Standards

SUBPART L: WASTE PILES

Section	
725.350	Applicability
725.351	Protection from Wind
725.352	Waste Analysis
725.353	Containment
725.354	Design and Operating Requirements
725.355	Action Leakage Rates
725.356	Special Requirements for Ignitable or Reactive Wastes
725.357	Special Requirements for Incompatible Wastes
725.358	Closure and Post-Closure Care

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- 725.359 Response Actions
- 725.360 Monitoring and Inspections

SUBPART M: LAND TREATMENT

- Section
- 725.370 Applicability
- 725.372 General Operating Requirements
- 725.373 Waste Analysis
- 725.376 Food Chain Crops
- 725.378 Unsaturated Zone (Zone of Aeration) Monitoring
- 725.379 Recordkeeping
- 725.380 Closure and Post-Closure Care
- 725.381 Special Requirements for Ignitable or Reactive Wastes
- 725.382 Special Requirements for Incompatible Wastes

SUBPART N: LANDFILLS

- Section
- 725.400 Applicability
- 725.401 Design Requirements
- 725.402 Action Leakage Rate
- 725.403 Response Actions
- 725.404 Monitoring and Inspections
- 725.409 Surveying and Recordkeeping
- 725.410 Closure and Post-Closure Care
- 725.412 Special Requirements for Ignitable or Reactive Wastes
- 725.413 Special Requirements for Incompatible Wastes
- 725.414 Special Requirements for Liquid Wastes
- 725.415 Special Requirements for Containers
- 725.416 Disposal of Small Containers of Hazardous Waste in Overpacked Drums (Lab Packs)

SUBPART O: INCINERATORS

- Section
- 725.440 Applicability
- 725.441 Waste Analysis
- 725.445 General Operating Requirements
- 725.447 Monitoring and Inspections

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- 725.451 Closure
- 725.452 Interim Status Incinerators Burning Particular Hazardous Wastes

SUBPART P: THERMAL TREATMENT

- Section
- 725.470 Other Thermal Treatment
- 725.473 General Operating Requirements
- 725.475 Waste Analysis
- 725.477 Monitoring and Inspections
- 725.481 Closure
- 725.482 Open Burning; Waste Explosives
- 725.483 Interim Status Thermal Treatment Devices Burning Particular Hazardous Wastes

SUBPART Q: CHEMICAL, PHYSICAL, AND BIOLOGICAL TREATMENT

- Section
- 725.500 Applicability
- 725.501 General Operating Requirements
- 725.502 Waste Analysis and Trial Tests
- 725.503 Inspections
- 725.504 Closure
- 725.505 Special Requirements for Ignitable or Reactive Wastes
- 725.506 Special Requirements for Incompatible Wastes

SUBPART R: UNDERGROUND INJECTION

- Section
- 725.530 Applicability

SUBPART W: DRIP PADS

- Section
- 725.540 Applicability
- 725.541 Assessment of Existing Drip Pad Integrity
- 725.542 Design and Installation of New Drip Pads
- 725.543 Design and Operating Requirements
- 725.544 Inspections
- 725.545 Closure

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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

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- 725.987 Standards: Containers
- 725.988 Standards: Closed-Vent Systems and Control Devices
- 725.989 Inspection and Monitoring Requirements
- 725.990 Recordkeeping Requirements
- 725.991 Alternative Tank Emission Control Requirements (Repealed)

SUBPART DD: CONTAINMENT BUILDINGS

Section

- 725.1100 Applicability
- 725.1101 Design and Operating Standards
- 725.1102 Closure and Post-Closure Care

SUBPART EE: HAZARDOUS WASTE MUNITIONS AND EXPLOSIVES STORAGE

Section

- 725.1200 Applicability
- 725.1201 Design and Operating Standards
- 725.1202 Closure and Post-Closure Care

- 725.APPENDIX A Recordkeeping Instructions
- 725.APPENDIX B EPA Report Form and Instructions (Repealed)
- 725.APPENDIX C USEPA Interim Primary Drinking Water Standards
- 725.APPENDIX D Tests for Significance
- 725.APPENDIX E Examples of Potentially Incompatible Wastes
- 725.APPENDIX F Compounds with Henry's Law Constant Less Than 0.1 Y/X (at 25°C)

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

SOURCE: Adopted in R81-22 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

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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

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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

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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.

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- 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 1.8×10^{-6} atmospheres/gram-mole/m³) 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/m³) 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

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

D) Calculations:

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

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

Where:

- ~~=~~ 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

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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.

C	≡	<u>Average VO concentration of the hazardous waste at the point of waste origination on a mass-weighted basis, in ppmw</u>
i	≡	<u>Individual waste determination "i" of the hazardous waste</u>
n	≡	<u>Total number of waste determinations of the hazardous waste conducted for the averaging period (not to exceed one year)</u>
Q_i	≡	<u>Mass quantity of the hazardous waste stream represented by C_i in kg/hr</u>
Q_T	≡	<u>Total mass quantity of the hazardous waste during the averaging period, in kg/hr</u>
C_i	≡	<u>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.</u>

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).

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- 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 1.8×10^{-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.

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- 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

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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.

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- 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

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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/m³) 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

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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/m³) 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:

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

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Where:

- ~~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.~~

- 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

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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

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

- C_i \equiv Exit concentration limit for treated hazardous waste, in ppmw
- x \equiv 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 \equiv 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

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subsection (a) of this Section
 m \equiv Total number of "x" hazardous waste streams treated by process
 n \equiv Total number of "y" hazardous waste streams treated by process
 Q_x \equiv Annual mass quantity of hazardous waste stream "x," in kg/yr
 Q_y \equiv Annual mass quantity of hazardous waste stream "y," in kg/yr
 C_x \equiv 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

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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:

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

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

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

\bar{C}_{aj} = Average VO concentration of hazardous waste exiting the process during run "j," as determined in

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~~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	≡	<u>Waste volatile organic mass flow existing the process, in kg/hr</u>
E_b	≡	<u>Waste volatile organic mass flow entering the process, in kg/hr</u>
m	≡	<u>Total number of runs (at least 3)</u>
j	≡	<u>Individual run "j"</u>
Q_{hj}	≡	<u>Mass quantity of hazardous waste entering the process during run "j," in kg/yr</u>
Q_{aj}	≡	<u>Average mass quantity of waste exiting the process during run "j," in kg/yr</u>
C_{aj}	≡	<u>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</u>
C_{bj}	≡	<u>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.</u>

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

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

Where:

R = Organic reduction efficiency, in percent

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~~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 \equiv Organiz reduction efficiency, in percent
 E_b \equiv 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 \equiv 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:

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

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.~~

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R_{bio} \equiv Organic biodegradation efficiency, in percent
 E_{bio} \equiv 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:

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

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

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

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

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

- 8) Procedure to determine the actual organic mass removal rate (MR) for a treated hazardous waste-
- A) The actual organic mass removal rate (MR) must be determined based on results for a minimum of three consecutive runs. The sampling time for each run must be one hour.
- B) The waste volatile organic mass flow entering the process (E_b) and

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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

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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:~~

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

~~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} \equiv Actual organic mass biodegradation rate, in kg/hr
 E_b \equiv 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} \equiv Fraction of organic biodegraded, as determined in accordance with the requirements of subsection (b)(9)(C) of this Section, in kg/hr.

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- 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);

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- 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.

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- 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

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- 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 m³ (2649 ft³ 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

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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

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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

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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

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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.

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- 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;

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- 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

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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.

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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 (cm²) per meter (10.0 in² per foot) of tank diameter, and the width of any portion of these gaps must not exceed 3.8 centimeters (cm)

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(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 cm² per meter (1.0 in² 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;

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- 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

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- 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

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- 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.

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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

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(1/4-inch) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the tank and measure the circumferential distance of each such location;

- iii) For a seal gap measured under this subsection (f)(3), the gap surface area must be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance; and
- iv) The total gap area must be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal diameter of the tank. These total gap areas for the primary seal and secondary seal are then compared to the respective standards for the seal type, as specified in subsection (f)(1)(B) of this Section; and

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

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

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- 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

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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

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- 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;

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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

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- 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

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- 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 m³ (26 gal) and less than or equal to 0.46 m³ (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 m³ (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

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- C) For a container having a design capacity greater than 0.46 m³ (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 m³ (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 ⁶¹¹portable tank²²¹ 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

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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:

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- 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

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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;

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- 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 m³ (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

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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

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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,

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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

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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.

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- 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

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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).

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- 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

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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:

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- 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

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Verification of a Permanent or Temporary Total Enclosure²² 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.

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- 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

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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

~~NOTICE OF PROPOSED AMENDMENTS~~

- 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

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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

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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.

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Format changed	0
Total changes	424

EXEMPT

JCAR350725-1309290r01

1 TITLE 35: ENVIRONMENTAL PROTECTION
2 SUBTITLE G: WASTE DISPOSAL
3 CHAPTER I: POLLUTION CONTROL BOARD
4 SUBCHAPTER c: HAZARDOUS WASTE OPERATING REQUIREMENTS
5

6 PART 725
7 INTERIM STATUS STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS
8 WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES
9

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15	725.104	Imminent Hazard Action

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23	725.113	General Waste Analysis
24	725.114	Security
25	725.115	General Inspection Requirements
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47	725.152	Content of Contingency Plan
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49	725.154	Amendment of Contingency Plan
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59	725.173	Operating Record
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61	725.175	Annual Report
62	725.176	Unmanifested Waste Report
63	725.177	Additional Reports

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110 725.272 Compatibility of Waste with Containers

111 725.273 Management of Containers

112 725.274 Inspections

113 725.276 Special Requirements for Ignitable or Reactive Wastes

114 725.277 Special Requirements for Incompatible Wastes

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126 725.296 Response to Leaks or Spills and Disposition of Tank Systems

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234	725.540	Applicability
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254	725.950	Applicability
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256	725.952	Standards: Pumps in Light Liquid Service
257	725.953	Standards: Compressors
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- 302 725.APPENDIX B EPA Report Form and Instructions (Repealed)
- 303 725.APPENDIX C USEPA Interim Primary Drinking Water Standards
- 304 725.APPENDIX D Tests for Significance
- 305 725.APPENDIX E Examples of Potentially Incompatible Wastes
- 306 725.APPENDIX F Compounds with Henry's Law Constant Less Than 0.1 Y/X (at 25°C)

307
 308 AUTHORITY: Implementing Sections 7.2 and 22.4 and authorized by Section 27 of the
 309 Environmental Protection Act [415 ILCS 5/7.2, 22.4, and 27].
 310

311 SOURCE: Adopted in R81-22 at 5 Ill. Reg. 9781, effective May 17, 1982; amended and
 312 codified in R81-22 at 6 Ill. Reg. 4828, effective May 17, 1982; amended in R82-18 at 7 Ill. Reg.
 313 2518, effective February 22, 1983; amended in R82-19 at 7 Ill. Reg. 14034, effective October 12,
 314 1983; amended in R84-9 at 9 Ill. Reg. 11869, effective July 24, 1985; amended in R85-22 at 10
 315 Ill. Reg. 1085, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 14069, effective
 316 August 12, 1986; amended in R86-28 at 11 Ill. Reg. 6044, effective March 24, 1987; amended in
 317 R86-46 at 11 Ill. Reg. 13489, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19338,
 318 effective November 10, 1987; amended in R87-26 at 12 Ill. Reg. 2485, effective January 15,
 319 1988; amended in R87-39 at 12 Ill. Reg. 13027, effective July 29, 1988; amended in R88-16 at
 320 13 Ill. Reg. 437, effective December 28, 1988; amended in R89-1 at 13 Ill. Reg. 18354, effective
 321 November 13, 1989; amended in R90-2 at 14 Ill. Reg. 14447, effective August 22, 1990;
 322 amended in R90-10 at 14 Ill. Reg. 16498, effective September 25, 1990; amended in R90-11 at
 323 15 Ill. Reg. 9398, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14534, effective
 324 October 1, 1991; amended in R91-13 at 16 Ill. Reg. 9578, effective June 9, 1992; amended in
 325 R92-1 at 16 Ill. Reg. 17672, effective November 6, 1992; amended in R92-10 at 17 Ill. Reg.
 326 5681, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20620, effective November 22,
 327 1993; amended in R93-16 at 18 Ill. Reg. 6771, effective April 26, 1994; amended in R94-7 at 18
 328 Ill. Reg. 12190, effective July 29, 1994; amended in R94-17 at 18 Ill. Reg. 17548, effective
 329 November 23, 1994; amended in R95-6 at 19 Ill. Reg. 9566, effective June 27, 1995; amended in
 330 R95-20 at 20 Ill. Reg. 11078, effective August 1, 1996; amended in R96-10/R97-3/R97-5 at 22
 331 Ill. Reg. 369, effective December 16, 1997; amended in R98-12 at 22 Ill. Reg. 7620, effective
 332 April 15, 1998; amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. 17620, effective September 28,
 333 1998; amended in R98-21/R99-2/R99-7 at 23 Ill. Reg. 1850, effective January 19, 1999;
 334 amended in R99-15 at 23 Ill. Reg. 9168, effective July 26, 1999; amended in R00-5 at 24 Ill.
 335 Reg. 1076, effective January 6, 2000; amended in R00-13 at 24 Ill. Reg. 9575, effective June 20,
 336 2000; amended in R03-7 at 27 Ill. Reg. 4187, effective February 14, 2003; amended in R05-8 at
 337 29 Ill. Reg. 6028, effective April 13, 2005; amended in R05-2 at 29 Ill. Reg. 6389, effective
 338 April 22, 2005; amended in R06-5/R06-6/R06-7 at 30 Ill. Reg. 3460, effective February 23,
 339 2006; amended in R06-16/R06-17/R06-18 at 31 Ill. Reg. 1031, effective December 20, 2006;
 340 amended in R07-5/R07-14 at 32 Ill. Reg. 12566, effective July 14, 2008; amended in R09-3 at 33
 341 Ill. Reg. 1155, effective December 30, 2008; amended in R09-16/R10-4 at 34 Ill. Reg. 18890,
 342 effective November 12, 2010; amended in R11-2/R11-16 at 35 Ill. Reg. 18052, effective October
 343 14, 2011; amended in R13-15 at 37 Ill. Reg. _____, effective _____.
 344

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.

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- 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

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

433
 434 iv) Sufficient information, as specified in the "site sampling
 435 plan" required under subsection (a)(3)(B)(iii) of this
 436 Section, must be prepared and recorded to document the
 437 waste quantity represented by the samples and, as
 438 applicable, the operating conditions for the source or
 439 process generating the hazardous waste represented by the
 440 samples.

441
 442 C) Analysis. Each collected sample must be prepared and analyzed in
 443 accordance with method 25D in appendix A to 40 CFR 60 for the
 444 total concentration of volatile organic constituents or using one or
 445 more methods when the individual organic compound
 446 concentrations are identified and summed and the summed waste
 447 concentration accounts for and reflects all organic compounds in
 448 the waste with Henry's law constant values at least 0.1 mole-
 449 fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1
 450 Y/X) (which can also be expressed as 1.8×10^{-6}
 451 atmospheres/gram-mole/m³) at 25° C (77° F). At the owner's or
 452 operator's discretion, the owner or operator may adjust test data
 453 measured by any appropriate method to discount any contribution
 454 to the total volatile organic concentration that is a result of
 455 including a compound with a Henry's law constant value of less
 456 than 0.1 Y/X at 25°C (77°F). To adjust these data, the measured
 457 concentration of each individual chemical constituent contained in
 458 the waste is multiplied by the constituent-specific adjustment
 459 factor (f_{m25D}). If the owner or operator elects to adjust test data,
 460 the adjustment must be made to all individual chemical
 461 constituents with a Henry's law constant value greater than or
 462 equal to 0.1 Y/X at 25°C contained in the waste. Constituent-
 463 specific adjustment factors (f_{m25D}) can be obtained by contacting
 464 the USEPA, Waste and Chemical Processes Group, Office of Air
 465 Quality Planning and Standards, Research Triangle Park, NC
 466 27711. Other test methods may be used if they meet the
 467 requirements in subsection (a)(3)(C)(i) or (a)(3)(C)(ii) of this
 468 Section and provided the requirement is met to reflect all organic
 469 compounds in the waste with Henry's law constant values greater
 470 than or equal to 0.1 Y/X (which can also be expressed as 1.8×10^{-6}
 471 atmospheres/gram-mole/m³) at 25°C.
 472

- 473 i) Any USEPA standard method that has been validated in
 474 accordance with appendix D to 40 CFR 63 (Alternative
 475 Validation Procedure for EPA Waste and Wastewater
 476 Methods), incorporated by reference in 35 Ill. Adm. Code
 477 720.111(b); or
 478
 479 ii) Any other analysis method that has been validated in
 480 accordance with the procedures specified in Section 5.1 or
 481 5.3, and the corresponding calculations in Section 6.1 or
 482 6.3, of Method 301 (Field Validation of Pollutant
 483 Measurement Methods from Various Waste Media) in
 484 appendix A to 40 CFR 63 (Test Methods), incorporated by
 485 reference in 35 Ill. Adm. Code 720.111(b). The data are
 486 acceptable if they meet the criteria specified in Section
 487 6.1.5 or 6.3.3 of Method 301. If correction is required
 488 under Section 6.3.3 of Method 301, the data are acceptable
 489 if the correction factor is within the range 0.7 to 1.30.
 490 Other sections of Method 301 are not required.

491
 492 D) Calculations-

- 493
 494 i) The average VO concentration \bar{C} on a mass-weighted basis
 495 must be calculated by using the results for all waste
 496 determinations conducted in accordance with subsections
 497 (a)(3)(B) and (a)(3)(C) of this Section and the following
 498 equation:
 499

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

501
 502 Where:

- 503
- \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.

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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

540 concentration must be considered to be one-half the blank
 541 value determined in the method at Section 4.4 of Method
 542 25D.
 543

- 544 ii) If any other analytical method is used, the VO
 545 concentration must be considered to be one-half the sum of
 546 the limits of detection established for each organic
 547 constituent in the waste that has a Henry's law constant
 548 value at least 0.1 mole-fraction-in-the-gas-phase/mole-
 549 fraction-in-the-liquid-phase (0.1 Y/X) (which can also be
 550 expressed as 1.8×10^{-6} atmospheres/gram-mole/m³) at 25°
 551 C.
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553 BOARD NOTE: Subsections (a)(3)(G)(i) and (a)(3)(G)(ii) are
 554 derived from 40 CFR 265.984(a)(3)(iv)(A)(1) and (a)(3)(iv)(A)(2),
 555 which the Board has codified here to comport with Illinois
 556 Administrative Code format requirements.
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- 558 4) Use of owner or operator knowledge to determine average VO
 559 concentration of a hazardous waste at the point of waste origination.
 560
- 561 A) Documentation must be prepared that presents the information
 562 used as the basis for the owner's or operator's knowledge of the
 563 hazardous waste stream's average VO concentration. Examples of
 564 information that may be used as the basis for knowledge include
 565 the following: material balances for the source or process
 566 generating the hazardous waste stream; constituent-specific
 567 chemical test data for the hazardous waste stream from previous
 568 testing that are still applicable to the current waste stream; previous
 569 test data for other locations managing the same type of waste
 570 stream; or other knowledge based on information included in
 571 manifests, shipping papers, or waste certification notices.
 572
- 573 B) If test data are used as the basis for knowledge, then the owner or
 574 operator must document the test method, sampling protocol, and
 575 the means by which sampling variability and analytical variability
 576 are accounted for in the determination of the average VO
 577 concentration. For example, an owner or operator may use organic
 578 concentration test data for the hazardous waste stream that are
 579 validated in accordance with Method 301 as the basis for
 580 knowledge of the waste.
 581
- 582 C) An owner or operator using chemical constituent-specific

583 concentration test data as the basis for knowledge of the hazardous
 584 waste may adjust the test data to the corresponding average VO
 585 concentration value that would have been obtained had the waste
 586 samples been analyzed using Method 25D. To adjust these data,
 587 the measured concentration for each individual chemical
 588 constituent contained in the waste is multiplied by the appropriate
 589 constituent-specific adjustment factor (f_{m25D}).
 590

591 D) In the event that the Agency and the owner or operator disagree on
 592 a determination of the average VO concentration for a hazardous
 593 waste stream using knowledge, then the results from a
 594 determination of average VO concentration using direct
 595 measurement, as specified in subsection (a)(3) of this Section,
 596 must be used to establish compliance with the applicable
 597 requirements of this Subpart CC. The Agency may perform or
 598 request that the owner or operator perform this determination using
 599 direct measurement. The owner or operator may choose one or
 600 more appropriate methods to analyze each collected sample in
 601 accordance with the requirements of subsection (a)(3)(C) of this
 602 Section.
 603

604 b) Waste determination procedures for treated hazardous waste:-
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606 1) An owner or operator must perform the applicable waste determination for
 607 each treated hazardous waste placed in a waste management unit
 608 exempted under the provisions of Section 725.983(c)(2)(A) through
 609 (c)(2)(F) from using air emission controls in accordance with the standards
 610 specified in Sections 725.985 through 725.988, as applicable to the waste
 611 management unit.
 612

613 A) An owner or operator must make an initial determination of the
 614 average VO concentration of the waste stream before the first time
 615 any portion of the material in the treated waste stream is placed in
 616 the waste management unit exempt under Section 725.983(c)(2),
 617 (c)(3), or (c)(4) from using air emission controls. Thereafter, an
 618 owner or operator must update the information used for the waste
 619 determination at least once every 12 months following the date of
 620 the initial waste determination.
 621

622 B) An owner or operator must perform a new waste determination
 623 whenever changes to the process generating or treating the waste
 624 stream are reasonably likely to cause the average VO concentration
 625 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.

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- 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/m³) 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:

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- \bar{C} = Average VO concentration of the hazardous waste at the point of waste treatment on a mass-weighted basis, in ppmw
- i = Individual determination "i" of the hazardous waste
- n = Total number of waste determinations of the hazardous waste collected for the averaging period (not to exceed one year)
- Q_i = Mass quantity of the hazardous waste stream represented by C_i in kg/hr
- Q_T = Total mass quantity of hazardous waste during the averaging period, in kg/hr
- C_i = Measured VO concentration of waste determinations "i," as determined in accordance with the requirements of subsection (b)(3)(C) of this Section (i.e., the average of the four or more samples specified in subsection (b)(3)(B)(ii) of this Section), in ppmw.

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- 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_i) 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_i) 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_i) must be calculated by using the results determined for each individual hazardous waste stream and the following equation:

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

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Where:

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

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- 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:

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

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

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.

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- 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:

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

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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.

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- 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:

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

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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.

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- 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:

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

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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

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

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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.

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9) Procedure to determine the actual organic mass biodegradation rate

895 (MR_{bio}) for a treated hazardous waste-

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- 897 A) The actual organic mass biodegradation rate (MR_{bio}) must be
- 898 determined based on results for a minimum of three consecutive
- 899 runs. The sampling time for each run must be one hour.
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- 901 B) The waste organic mass flow entering the process (E_b) must be
- 902 determined in accordance with the requirements of subsection
- 903 (b)(5)(D) of this Section.
- 904
- 905 C) The fraction of organic biodegraded (F_{bio}) must be determined
- 906 using the procedure specified in appendix C to 40 CFR 63
- 907 (Determination of the Fraction Biodegraded (F_{bio}) in a Biological
- 908 Treatment Unit), incorporated by reference in 35 Ill. Adm. Code
- 909 720.111(b).
- 910
- 911 D) The actual organic mass biodegradation rate (MR_{bio}) must be
- 912 calculated by using the mass flow rates and fraction of organic
- 913 biodegraded, as determined in accordance with the requirements of
- 914 subsections (b)(9)(B) and (b)(9)(C) of this Section, respectively,
- 915 and the following equation:

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

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918 Where:

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- 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.

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922 c) Procedure to determine the maximum organic vapor pressure of a hazardous

923 waste in a tank-

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- 925 1) An owner or operator must determine the maximum organic vapor
- 926 pressure for each hazardous waste placed in a tank using Tank Level 1
- 927 controls in accordance with standards specified in Section 725.985(c).
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- 929 2) An owner or operator must use either direct measurement, as specified in
- 930 subsection (c)(3) of this Section, or knowledge of the waste, as specified

931 by subsection (c)(4) of this Section, to determine the maximum organic
932 vapor pressure that is representative of the hazardous waste composition
933 stored or treated in the tank.
934

935 3) Direct measurement to determine the maximum organic vapor pressure of
936 a hazardous waste:-
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938 A) Sampling. A sufficient number of samples must be collected to be
939 representative of the waste contained in the tank. All samples must
940 be conducted and handled in accordance with written procedures
941 prepared by the owner or operator and documented in a site
942 sampling plan. This plan must describe the procedure by which
943 representative samples of the hazardous waste are collected so that
944 a minimum loss of organics occurs throughout the sample
945 collection and handling process and by which sample integrity is
946 maintained. A copy of the written sampling plan must be
947 maintained on-site in the facility operating records. An example of
948 an acceptable sampling plan includes a plan incorporating sample
949 collection and handling procedures and may be found in Method
950 25D.
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952 B) Analysis. Any appropriate one of the following methods may be
953 used to analyze the samples and compute the maximum organic
954 vapor pressure of the hazardous waste:
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956 i) Method 25E (Determination of Vapor Phase Organic
957 Concentration in Waste Samples) in appendix A to 40 CFR
958 60 (Test Methods), incorporated by reference in 35 Ill.
959 Adm. Code 720.111(b);
960

961 ii) Methods described in API publication 2517 (Evaporative
962 Loss from External Floating-Roof Tanks), incorporated by
963 reference in 35 Ill. Adm. Code 720.111(a);
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965 iii) Methods obtained from standard reference texts;
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967 iv) ASTM Method D 2879-92 (Standard Test Method for
968 Vapor Pressure-Temperature Relationship and Initial
969 Decomposition Temperature of Liquids by Isotenoscope),
970 incorporated by reference in 35 Ill. Adm. Code 720.111(a);
971 or
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973 v) Any other method approved by the Agency.

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- 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.

- 1017 5) Calibration gases must be as follows:
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1019 A) Zero air (less than 10 ppmv hydrocarbon in air), and
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1021 B) A mixture of methane or n-hexane in air at a concentration of
1022 approximately, but less than, 10,000 ppmv methane or n-hexane.
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1024 6) The background level must be determined according to the procedures in
1025 Method 21.
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1027 7) Each potential leak interface must be checked by traversing the instrument
1028 probe around the potential leak interface as close to the interface as
1029 possible, as described in Method 21. In the case when the configuration of
1030 the cover or closure device prevents a complete traverse of the interface,
1031 all accessible portions of the interface must be sampled. In the case when
1032 the configuration of the closure device prevents any sampling at the
1033 interface and the device is equipped with an enclosed extension or horn
1034 (e.g., some pressure relief devices), the instrument probe inlet must be
1035 placed at approximately the center of the exhaust area to the atmosphere.
1036
1037 8) The arithmetic difference between the maximum organic concentration
1038 indicated by the instrument and the background level must be compared
1039 with the value of 500 ppmv except when monitoring a seal around a
1040 rotating shaft that passes through a cover opening, in which case the
1041 comparison must be as specified in subsection (d)(9) of this Section. If the
1042 difference is less than 500 ppmv, then the potential leak interface is
1043 determined to operate with no detectable organic emissions.
1044
1045 9) For the seals around a rotating shaft that passes through a cover opening,
1046 the arithmetic difference between the maximum organic concentration
1047 indicated by the instrument and the background level must be compared
1048 with the value of 10,000 ppmw. If the difference is less than 10,000
1049 ppmw, then the potential leak interface is determined to operate with no
1050 detectable organic emissions.
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1052 (Source: Amended at 37 Ill. Reg. _____, effective _____)
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1054 **Section 725.985 Standards: Tanks**
1055

- 1056 a) The provisions of this Section apply to the control of air pollutant emissions from
1057 tanks for which Section 725.983(b) references the use of this Section for such air
1058 emission control.
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- 1060 b) The owner or operator must control air pollutant emissions from each tank subject
 1061 to this Section in accordance with the following requirements, as applicable:
 1062
- 1063 1) For a tank that manages hazardous waste that meets all of the conditions
 1064 specified in subsections (b)(1)(A) through (b)(1)(C) of this Section, the
 1065 owner or operator must control air pollutant emissions from the tank in
 1066 accordance with the Tank Level 1 controls specified in subsection (c) of
 1067 this Section or the Tank Level 2 controls specified in subsection (d) of this
 1068 Section.
 1069
- 1070 A) The hazardous waste in the tank has a maximum organic vapor
 1071 pressure that is less than the maximum organic vapor pressure limit
 1072 for the tank's design capacity category, as follows:
 1073
- 1074 i) For a tank design capacity equal to or greater than 151 m³
 1075 (5333 ft³ or 39,887 gal), the maximum organic vapor
 1076 pressure limit for the tank is 5.2 kPa (0.75 psia or 39
 1077 mmHg);
 1078
- 1079 ii) For a tank design capacity equal to or greater than 75 m³
 1080 (2649 ft³ or 19,810 gal) but less than 151 m³ (5333 ft³ or
 1081 39,887 gal), the maximum organic vapor pressure limit for
 1082 the tank is 27.6 kPa (4.0 psia or 207 mmHg); or
 1083
- 1084 iii) For a tank design capacity less than 75 m³ (2649 ft³ or
 1085 19,810 gal), the maximum organic vapor pressure limit for
 1086 the tank is 76.6 kPa (11.1 psia or 574 mmHg).
 1087
- 1088 B) The hazardous waste in the tank is not heated by the owner or
 1089 operator to a temperature that is greater than the temperature at
 1090 which the maximum organic vapor pressure of the hazardous waste
 1091 is determined for the purpose of complying with subsection
 1092 (b)(1)(A) of this Section.
 1093
- 1094 C) The hazardous waste in the tank is not treated by the owner or
 1095 operator using a waste stabilization process, as defined in Section
 1096 725.981.
 1097
- 1098 2) For a tank that manages hazardous waste that does not meet all of the
 1099 conditions specified in subsections (b)(1)(A) through (b)(1)(C) of this
 1100 Section, the owner or operator must control air pollutant emissions from
 1101 the tank by using Tank Level 2 controls in accordance with the
 1102 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

- 1146 is secured in the closed position there are no visible cracks,
 1147 holes, gaps, or other open spaces in the closure device or
 1148 between the perimeter of the opening and the closure
 1149 device; or
 1150
 1151 ii) The opening or manifold system is connected by a closed-
 1152 vent system that is vented to a control device. The control
 1153 device must remove or destroy organics in the vent stream,
 1154 and it must be operating whenever hazardous waste is
 1155 managed in the tank, except as provided for in subsection
 1156 (c)(2)(E).
 1157
 1158 D) The fixed roof and its closure devices must be made of suitable
 1159 materials that will minimize exposure of the hazardous waste to the
 1160 atmosphere, to the extent practical, and which will maintain the
 1161 integrity of the fixed roof and closure devices throughout their
 1162 intended service life. Factors to be considered when selecting the
 1163 materials for and designing the fixed roof and closure devices must
 1164 include the following: organic vapor permeability; the effects of
 1165 any contact with the hazardous waste or its vapors managed in the
 1166 tank; the effects of outdoor exposure to wind, moisture, and
 1167 sunlight; and the operating practices used for the tank on which the
 1168 fixed roof is installed.
 1169
 1170 E) The control device operated pursuant to subsection (c)(2)(C) of
 1171 this Section needs not remove or destroy organics in the vent
 1172 stream under the following conditions:
 1173
 1174 i) During periods when it is necessary to provide access to the
 1175 tank for performing the activities of subsection (c)(2)(E)(ii)
 1176 of this Section, venting of the vapor headspace underneath
 1177 the fixed roof to the control device is not required, opening
 1178 of closure devices is allowed, and removal of the fixed roof
 1179 is allowed. Following completion of the activity, the owner
 1180 or operator must promptly secure the closure device in the
 1181 closed position or reinstall the cover, as applicable, and
 1182 resume operation of the control device; and
 1183
 1184 ii) During periods of routine inspection, maintenance, or other
 1185 activities needed for normal operations, and for the removal
 1186 of accumulated sludge or other residues from the bottom of
 1187 the tank.
 1188

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.

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- 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.

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- 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;

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- 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.
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- 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.
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- 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
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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,

- 1404 including the explanation for the unplanned inspection,
1405 may be sent so that it is received by the Regional
1406 Administrator at least seven calendar days before refilling
1407 the tank;
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- 1409 E) In the event that a defect is detected, the owner or operator must
1410 repair the defect in accordance with the requirements of subsection
1411 (k) of this Section; and
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- 1413 F) The owner or operator must maintain a record of the inspection in
1414 accordance with the requirements specified in Section 725.990(b).
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- 1416 4) Safety devices, as defined in Section 725.981, may be installed and
1417 operated as necessary on any tank complying with the requirements of this
1418 subsection (e).
1419
- 1420 f) The owner or operator that controls air pollutant emissions from a tank using an
1421 external floating roof must meet the requirements specified in subsections (f)(1)
1422 through (f)(3) of this Section.
1423
- 1424 1) The owner or operator must design the external floating roof in
1425 accordance with the following requirements:
1426
- 1427 A) The external floating roof must be designed to float on the liquid
1428 surface except when the floating roof must be supported by the leg
1429 supports;
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- 1431 B) The floating roof must be equipped with two continuous seals, one
1432 above the other, between the wall of the tank and the roof edge.
1433 The lower seal is referred to as the primary seal, and the upper seal
1434 is referred to as the secondary seal.
1435
- 1436 i) The primary seal must be a liquid-mounted seal or a
1437 metallic shoe seal, as defined in Section 725.981. The total
1438 area of the gaps between the tank wall and the primary seal
1439 must not exceed 212 square centimeters (cm²) per meter
1440 (10.0 in² per foot) of tank diameter, and the width of any
1441 portion of these gaps must not exceed 3.8 centimeters (cm)
1442 (1.5 inches). If a metallic shoe seal is used for the primary
1443 seal, the metallic shoe seal must be designed so that one
1444 end extends into the liquid in the tank and the other end
1445 extends a vertical distance of at least 61 centimeters (24
1446 inches) above the liquid surface.

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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 cm² per meter (1.0 in² 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

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- 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

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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

- 1576 the floating roof deck being submerged below the surface
 1577 of the liquid in the tank; broken, cracked, or otherwise
 1578 damaged seals or gaskets on closure devices; and broken or
 1579 missing hatches, access covers, caps, or other closure
 1580 devices;
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- 1582 ii) The owner or operator must perform an initial inspection of
 1583 the external floating roof and its closure devices on or
 1584 before the date that the tank becomes subject to this
 1585 Section. Thereafter, the owner or operator must perform
 1586 the inspections at least once every year except for the
 1587 special conditions provided for in subsection (l) of this
 1588 Section;
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- 1590 iii) In the event that a defect is detected, the owner or operator
 1591 must repair the defect in accordance with the requirements
 1592 of subsection (k) of this Section; and
- 1593
- 1594 iv) The owner or operator must maintain a record of the
 1595 inspection in accordance with the requirements specified in
 1596 Section 725.990(b);
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- 1598 C) Prior to each inspection required by subsection (f)(3)(A) or
 1599 (f)(3)(B) of this Section, the owner or operator must notify the
 1600 Agency in advance of each inspection to provide the Agency with
 1601 the opportunity to have an observer present during the inspection.
 1602 The owner or operator must notify the Agency of the date and
 1603 location of the inspection as follows:
- 1604
- 1605 i) Prior to each inspection to measure external floating roof
 1606 seal gaps as required under subsection (f)(3)(A) of this
 1607 Section, written notification must be prepared and sent by
 1608 the owner or operator so that it is received by the Agency at
 1609 least 30 calendar days before the date the measurements are
 1610 scheduled to be performed;
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- 1612 ii) Prior to each visual inspection of an external floating roof
 1613 in a tank that has been emptied and degassed, written
 1614 notification must be prepared and sent by the owner or
 1615 operator so that it is received by the Agency at least 30
 1616 calendar days before refilling the tank except when an
 1617 inspection is not planned, as provided for in subsection
 1618 (f)(3)(C)(iii) of this Section; and

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

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

- i) The seal gap measurements must be performed at one or more floating roof levels when the roof is floating off the roof supports;
- ii) Seal gaps, if any, must be measured around the entire perimeter of the floating roof in each place where a 0.32-cm (1/4-inch) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the tank and measure the circumferential distance of each such location;
- iii) For a seal gap measured under this subsection (f)(3), the gap surface area must be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance; and
- iv) The total gap area must be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal diameter of the tank. These total gap areas for the primary seal and secondary seal are then compared to the respective standards for the seal type, as specified in subsection (f)(1)(B) of this Section; and-

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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

- 1705 effects of outdoor exposure to wind, moisture, and sunlight; and
1706 the operating practices used for the tank on which the fixed roof is
1707 installed; and
1708
- 1709 D) The closed-vent system and control device must be designed and
1710 operated in accordance with the requirements of Section 725.988.
1711
- 1712 2) Whenever a hazardous waste is in the tank, the fixed roof must be installed
1713 with each closure device secured in the closed position and the vapor
1714 headspace underneath the fixed roof vented to the control device except as
1715 follows:
1716
- 1717 A) Venting to the control device is not required, and opening of
1718 closure devices or removal of the fixed roof is allowed at the
1719 following times:
1720
- 1721 i) To provide access to the tank for performing routine
1722 inspection, maintenance, or other activities needed for
1723 normal operations. Examples of such activities include
1724 those times when a worker needs to open a port to sample
1725 liquid in the tank, or when a worker needs to open a hatch
1726 to maintain or repair equipment. Following completion of
1727 the activity, the owner or operator must promptly secure the
1728 closure device in the closed position or reinstall the cover,
1729 as applicable, to the tank; and
1730
- 1731 ii) To remove accumulated sludge or other residues from the
1732 bottom of a tank; and
1733
- 1734 B) Opening of a safety device, as defined in Section 725.981, is
1735 allowed at any time conditions require doing so to avoid an unsafe
1736 condition.
1737
- 1738 3) The owner or operator must inspect and monitor the air emission control
1739 equipment in accordance with the following procedures:
1740
- 1741 A) The fixed roof and its closure devices must be visually inspected
1742 by the owner or operator to check for defects that could result in
1743 air pollutant emissions. Defects include, but are not limited to any
1744 of the following: visible cracks, holes, or gaps in the roof sections
1745 or between the roof and the tank wall; broken, cracked, or
1746 otherwise damaged seals or gaskets on closure devices; and broken
1747 or missing hatches, access covers, caps, or other closure devices;

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- 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.

- 1791 i) The owner or operator that controls air pollutant emissions by using an enclosure
 1792 vented through a closed-vent system to an enclosed combustion control device
 1793 must meet the requirements specified in subsections (i)(1) through (i)(4) of this
 1794 Section.
 1795
- 1796 1) The tank must be located inside an enclosure. The enclosure must be
 1797 designed and operated in accordance with the criteria for a permanent total
 1798 enclosure, as specified in "Procedure T – Criteria for and Verification of a
 1799 Permanent or Temporary Total Enclosure" under appendix B to 40 CFR
 1800 52.741 (VOM Measurement Techniques for Capture Efficiency),
 1801 incorporated by reference in 35 Ill. Adm. Code 720.111(b). The enclosure
 1802 may have permanent or temporary openings to allow worker access;
 1803 passage of material into or out of the enclosure by conveyor, vehicles, or
 1804 other mechanical means; entry of permanent mechanical or electrical
 1805 equipment; or direct airflow into the enclosure. The owner or operator
 1806 must perform the verification procedure for the enclosure as specified in
 1807 Section 5.0 to "Procedure T – Criteria for and Verification of a Permanent
 1808 or Temporary Total Enclosure" initially when the enclosure is first
 1809 installed and, thereafter, annually;
 1810
- 1811 2) The enclosure must be vented through a closed-vent system to an enclosed
 1812 combustion control device that is designed and operated in accordance
 1813 with the standards for either a vapor incinerator, boiler, or process heater
 1814 specified in Section 725.988;
 1815
- 1816 3) Safety devices, as defined in Section 725.981, may be installed and
 1817 operated as necessary on any enclosure, closed-vent system, or control
 1818 device used to comply with the requirements of subsections (i)(1) and
 1819 (i)(2) of this Section; and
 1820
- 1821 4) The owner or operator must inspect and monitor the closed-vent system
 1822 and control device, as specified in Section 725.988.
 1823
- 1824 j) The owner or operator must transfer hazardous waste to a tank subject to this
 1825 Section in accordance with the following requirements:
 1826
- 1827 1) Transfer of hazardous waste, except as provided in subsection (j)(2) of this
 1828 Section, to the tank from another tank subject to this Section or from a
 1829 surface impoundment subject to Section 725.986 must be conducted using
 1830 continuous hard-piping or another closed system that does not allow
 1831 exposure of the hazardous waste to the atmosphere. For the purpose of
 1832 complying with this provision, an individual drain system is considered to
 1833 be a closed system when it meets the requirements of subpart RR of 40

1834 CFR 63(National Emission Standards for Individual Drain Systems),
 1835 incorporated by reference in 35 Ill. Adm. Code 720.111(b); and

1836
 1837 2) The requirements of subsection (j)(1) of this Section do not apply when
 1838 transferring a hazardous waste to the tank under any of the following
 1839 conditions:

1840
 1841 A) The hazardous waste meets the average VO concentration
 1842 conditions specified in Section 725.983(c)(1) at the point of waste
 1843 origination;

1844
 1845 B) The hazardous waste has been treated by an organic destruction or
 1846 removal process to meet the requirements in Section
 1847 725.983(c)(2); and

1848
 1849 C) The hazardous waste meets the requirements of Section
 1850 725.983(c)(4).

1851
 1852 k) The owner or operator must repair each defect detected during an inspection
 1853 performed in accordance with the requirements of subsection (c)(4), (e)(3), (f)(3),
 1854 or (g)(3) of this Section as follows:

1855
 1856 1) The owner or operator must make first efforts at repair of the defect no
 1857 later than five calendar days after detection, and repair must be completed
 1858 as soon as possible but no later than 45 calendar days after detection
 1859 except as provided in subsection (k)(2) of this Section; and

1860
 1861 2) Repair of a defect may be delayed beyond 45 calendar days if the owner or
 1862 operator determines that repair of the defect requires emptying or
 1863 temporary removal from service of the tank and no alternative tank
 1864 capacity is available at the site to accept the hazardous waste normally
 1865 managed in the tank. In this case, the owner or operator must repair the
 1866 defect the next time the process or unit that is generating the hazardous
 1867 waste managed in the tank stops operation. Repair of the defect must be
 1868 completed before the process or unit resumes operation.

1869
 1870 l) Following the initial inspection and monitoring of the cover as required by the
 1871 applicable provisions of this Subpart CC, subsequent inspection and monitoring
 1872 may be performed at intervals longer than one year under the following special
 1873 conditions:

1874
 1875 1) Where inspecting or monitoring the cover would expose a worker to
 1876 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 m³ (26 gal) and less than or equal to 0.46 m³ (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 m³ (120 gal) that is not in light material service, the owner or operator must control air pollutant emissions from the container in accordance

- 1920 with the Container Level 1 standards specified in subsection (c) of
 1921 this Section; and
 1922
 1923 C) For a container having a design capacity greater than 0.46 m³ (120
 1924 gal) that is in light material service, the owner or operator must
 1925 control air pollutant emissions from the container in accordance
 1926 with the Container Level 2 standards specified in subsection (d) of
 1927 this Section.
 1928
 1929 2) When a container having a design capacity greater than 0.1 m³ (26 gal) is
 1930 used for treatment of a hazardous waste by a waste stabilization process,
 1931 the owner or operator must control air pollutant emissions from the
 1932 container in accordance with the Container Level 3 standards specified in
 1933 subsection (e) of this Section at those times during the waste stabilization
 1934 process when the hazardous waste in the container is exposed to the
 1935 atmosphere.
 1936
 1937 c) Container Level 1 standards:-
 1938
 1939 1) A container using Container Level 1 controls is one of the following:
 1940
 1941 A) A container that meets the applicable USDOT regulations on
 1942 packaging hazardous materials for transportation, as specified in
 1943 subsection (f) of this Section;
 1944
 1945 B) A container equipped with a cover and closure devices that form a
 1946 continuous barrier over the container openings so that when the
 1947 cover and closure devices are secured in the closed position there
 1948 are no visible holes, gaps, or other open spaces into the interior of
 1949 the container. The cover may be a separate cover installed on the
 1950 container (e.g., a lid on a drum or a suitably secured tarp on a roll-
 1951 off box) or may be an integral part of the container structural
 1952 design (e.g., a "portable tank" or bulk cargo container equipped
 1953 with a screw-type cap); and
 1954
 1955 C) An open-top container in which an organic-vapor suppressing
 1956 barrier is placed on or over the hazardous waste in the container so
 1957 that no hazardous waste is exposed to the atmosphere. One
 1958 example of such a barrier is application of a suitable organic-vapor
 1959 suppressing foam.
 1960
 1961 2) A container used to meet the requirements of subsection (c)(1)(B) or
 1962 (c)(1)(C) of this Section must be equipped with covers and closure

1963 devices, as applicable to the container, that are composed of suitable
 1964 materials to minimize exposure of the hazardous waste to the atmosphere
 1965 and to maintain the equipment integrity for as long as it is in service.
 1966 Factors to be considered in selecting the materials of construction and
 1967 designing the cover and closure devices must include the following: the
 1968 organic vapor permeability; the effects of contact with the hazardous
 1969 waste or its vapor managed in the container; the effects of outdoor
 1970 exposure of the closure device or cover material to wind, moisture, and
 1971 sunlight; and the operating practices for which the container is intended to
 1972 be used.
 1973

- 1974 3) Whenever a hazardous waste is in a container using Container Level 1
 1975 controls, the owner or operator must install all covers and closure devices
 1976 for the container, as applicable to the container, and secure and maintain
 1977 each closure device in the closed position except as follows:
 1978
- 1979 A) Opening of a closure device or cover is allowed for the purpose of
 1980 adding hazardous waste or other material to the container, as
 1981 follows:
 1982
- 1983 i) In the case when the container is filled to the intended final
 1984 level in one continuous operation, the owner or operator
 1985 must promptly secure the closure devices in the closed
 1986 position and install the covers, as applicable to the
 1987 container, upon conclusion of the filling operation; and
 1988
 - 1989 ii) In the case when discrete quantities or batches of material
 1990 intermittently are added to the container over a period of
 1991 time, the owner or operator must promptly secure the
 1992 closure devices in the closed position and install covers, as
 1993 applicable to the container, upon either the container being
 1994 filled to the intended final level; the completion of a batch
 1995 loading after which no additional material will be added to
 1996 the container within 15 minutes; the person performing the
 1997 loading operation leaving the immediate vicinity of the
 1998 container; or the shutdown of the process generating the
 1999 material being added to the container, whichever condition
 2000 occurs first;
 2001
- 2002 B) Opening of a closure device or cover is allowed for the purpose of
 2003 removing hazardous waste from the container as follows:
 2004
- 2005 i) For the purpose of meeting the requirements of this

- 2006 Section, an empty container, as defined in 35 Ill. Adm.
2007 Code 721.107(b), may be open to the atmosphere at any
2008 time (i.e., covers and closure devices are not required to be
2009 secured in the closed position on an empty container); and
2010
2011 ii) In the case when discrete quantities or batches of material
2012 are removed from the container but the container does not
2013 meet the conditions to be an empty container, as defined in
2014 35 Ill. Adm. Code 721.107(b), the owner or operator must
2015 promptly secure the closure devices in the closed position
2016 and install covers, as applicable to the container, upon the
2017 completion of a batch removal after which no additional
2018 material will be removed from the container within 15
2019 minutes or the person performing the unloading operation
2020 leaves the immediate vicinity of the container, whichever
2021 condition occurs first;
2022
2023 C) Opening of a closure device or cover is allowed when access inside
2024 the container is needed to perform routine activities other than
2025 transfer of hazardous waste. Examples of such activities include
2026 those times when a worker needs to open a port to measure the
2027 depth of or sample the material in the container, or when a worker
2028 needs to open a manhole hatch to access equipment inside the
2029 container. Following completion of the activity, the owner or
2030 operator must promptly secure the closure device in the closed
2031 position or reinstall the cover, as applicable to the container;
2032
2033 D) Opening of a spring-loaded, pressure-vacuum relief valve,
2034 conservation vent, or similar type of pressure relief device that
2035 vents to the atmosphere is allowed during normal operations for
2036 the purpose of maintaining the container internal pressure in
2037 accordance with the design specifications of the container. The
2038 device must be designed to operate with no detectable organic
2039 emissions when the device is secured in the closed position. The
2040 settings at which the device opens must be established so that the
2041 device remains in the closed position whenever the internal
2042 pressure of the container is within the internal pressure operating
2043 range determined by the owner or operator based on container
2044 manufacturer recommendations, applicable regulations, fire
2045 protection and prevention codes, standard engineering codes and
2046 practices, or other requirements for the safe handling of
2047 flammable, ignitable, explosive, reactive, or hazardous materials.
2048 Examples of normal operating conditions that may require these

- 2049 devices to open are during those times when the internal pressure
2050 of the container exceeds the internal pressure operating range for
2051 the container as a result of loading operations or diurnal ambient
2052 temperature fluctuations; and
2053
- 2054 E) Opening of a safety device, as defined in Section 725.981, is
2055 allowed at any time conditions require doing so to avoid an unsafe
2056 condition.
2057
- 2058 4) The owner or operator of containers using Container Level 1 controls must
2059 inspect the containers and their covers and closure devices as follows:
2060
- 2061 A) In the case when a hazardous waste already is in the container at
2062 the time the owner or operator first accepts possession of the
2063 container at the facility and the container is not emptied within 24
2064 hours after the container is accepted at the facility (i.e., it does not
2065 meet the conditions for an empty container as specified in 35 Ill.
2066 Adm. Code 721.107(b)), the owner or operator must visually
2067 inspect the container and its cover and closure devices to check for
2068 visible cracks, holes, gaps, or other open spaces into the interior of
2069 the container when the cover and closure devices are secured in the
2070 closed position. The container visual inspection must be
2071 conducted on or before the date on which the container is accepted
2072 at the facility (i.e., the date when the container becomes subject to
2073 the Subpart CC container standards). For the purposes of this
2074 requirement, the date of acceptance is the date of signature that the
2075 facility owner or operator enters on Item 20 of the Uniform
2076 Hazardous Waste Manifest, as set forth in the appendix to 40 CFR
2077 262 (Uniform Hazardous Waste Manifest and Instructions (EPA
2078 Forms 8700-22 and 8700-22A and Their Instructions)),
2079 incorporated by reference in 35 Ill. Adm. Code 720.111(b), as
2080 required under Section 725.171. If a defect is detected, the owner
2081 or operator must repair the defect in accordance with the
2082 requirements of subsection (c)(4)(C) of this Section;
2083
- 2084 B) In the case when a container used for managing hazardous waste
2085 remains at the facility for a period of one year or more, the owner
2086 or operator must visually inspect the container and its cover and
2087 closure devices initially and thereafter, at least once every 12
2088 months, to check for visible cracks, holes, gaps, or other open
2089 spaces into the interior of the container when the cover and closure
2090 devices are secured in the closed position. If a defect is detected,
2091 the owner or operator must repair the defect in accordance with the

2092 requirements of subsection (c)(4)(C) of this Section; and

2093
 2094 C) When a defect is detected in the container, cover, or closure
 2095 devices, the owner or operator must make first efforts at repair of
 2096 the defect no later than 24 hours after detection, and repair must be
 2097 completed as soon as possible but no later than five calendar days
 2098 after detection. If repair of a defect cannot be completed within
 2099 five calendar days, then the hazardous waste must be removed
 2100 from the container and the container must not be used to manage
 2101 hazardous waste until the defect is repaired.

2102
 2103 5) The owner or operator must maintain at the facility a copy of the
 2104 procedure used to determine that containers with capacity of 0.46 m³ (120
 2105 gal) or greater which do not meet applicable USDOT regulations, as
 2106 specified in subsection (f) of this Section, are not managing hazardous
 2107 waste in light material service.

2108
 2109 d) Container Level 2 standards-

2110
 2111 1) A container using Container Level 2 controls is one of the following:

2112
 2113 A) A container that meets the applicable USDOT regulations on
 2114 packaging hazardous materials for transportation as specified in
 2115 subsection (f) of this Section;

2116
 2117 B) A container that operates with no detectable organic emissions, as
 2118 defined in Section 725.981, and determined in accordance with the
 2119 procedure specified in subsection (g) of this Section; and

2120
 2121 C) A container that has been demonstrated within the preceding 12
 2122 months to be vapor-tight by using Method 27 (Determination of
 2123 Vapor Tightness of Gasoline Delivery Tank Using Pressure-
 2124 Vacuum Test) in appendix A to 40 CFR 60 (Test Methods),
 2125 incorporated by reference in 35 Ill. Adm. Code 720.111(b), in
 2126 accordance with the procedure specified in subsection (h) of this
 2127 Section.

2128
 2129 2) Transfer of hazardous waste into or out of a container using Container
 2130 Level 2 controls must be conducted in such a manner as to minimize
 2131 exposure of the hazardous waste to the atmosphere, to the extent practical,
 2132 considering the physical properties of the hazardous waste and good
 2133 engineering and safety practices for handling flammable, ignitable,
 2134 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

- 2178 time (i.e., covers and closure devices are not required to be
 2179 secured in the closed position on an empty container); and
 2180
 2181 ii) In the case when discrete quantities or batches of material
 2182 are removed from the container but the container does not
 2183 meet the conditions to be an empty container as defined in
 2184 35 Ill. Adm. Code 721.107(b), the owner or operator must
 2185 promptly secure the closure devices in the closed position
 2186 and install covers, as applicable to the container, upon the
 2187 completion of a batch removal after which no additional
 2188 material will be removed from the container within 15
 2189 minutes or the person performing the unloading operation
 2190 leaves the immediate vicinity of the container, whichever
 2191 condition occurs first;
 2192
 2193 C) Opening of a closure device or cover is allowed when access inside
 2194 the container is needed to perform routine activities other than
 2195 transfer of hazardous waste. Examples of such activities include
 2196 those times when a worker needs to open a port to measure the
 2197 depth of or sample the material in the container, or when a worker
 2198 needs to open a manhole hatch to access equipment inside the
 2199 container. Following completion of the activity, the owner or
 2200 operator must promptly secure the closure device in the closed
 2201 position or reinstall the cover, as applicable to the container;
 2202
 2203 D) Opening of a spring-loaded, pressure-vacuum relief valve,
 2204 conservation vent, or similar type of pressure relief device that
 2205 vents to the atmosphere is allowed during normal operations for
 2206 the purpose of maintaining the internal pressure of the container in
 2207 accordance with the container design specifications. The device
 2208 must be designed to operate with no detectable organic emission
 2209 when the device is secured in the closed position. The settings at
 2210 which the device opens must be established so that the device
 2211 remains in the closed position whenever the internal pressure of the
 2212 container is within the internal pressure operating range
 2213 determined by the owner or operator based on container
 2214 manufacturer recommendations, applicable regulations, fire
 2215 protection and prevention codes, standard engineering codes and
 2216 practices, or other requirements for the safe handling of
 2217 flammable, ignitable, explosive, reactive, or hazardous materials.
 2218 Examples of normal operating conditions that may require these
 2219 devices to open are during those times when the internal pressure
 2220 of the container exceeds the internal pressure operating range for

- 2221 the container as a result of loading operations or diurnal ambient
 2222 temperature fluctuations; and
 2223
 2224 E) Opening of a safety device, as defined in Section 725.981, is
 2225 allowed at any time conditions require doing so to avoid an unsafe
 2226 condition.
 2227
 2228 4) The owner or operator of containers using Container Level 2 controls must
 2229 inspect the containers and their covers and closure devices as follows:
 2230
 2231 A) In the case when a hazardous waste already is in the container at
 2232 the time the owner or operator first accepts possession of the
 2233 container at the facility and the container is not emptied within 24
 2234 hours after the container is accepted at the facility (i.e., it does not
 2235 meet the conditions for an empty container as specified in 35 Ill.
 2236 Adm. Code 721.107(b)), the owner or operator must visually
 2237 inspect the container and its cover and closure devices to check for
 2238 visible cracks, holes, gaps, or other open spaces into the interior of
 2239 the container when the cover and closure devices are secured in the
 2240 closed position. The container visual inspection must be
 2241 conducted on or before the date on which the container is accepted
 2242 at the facility (i.e., the date when the container becomes subject to
 2243 the Subpart CC container standards). For the purposes of this
 2244 requirement, the date of acceptance is the date of signature that the
 2245 facility owner or operator enters on Item 20 of the Uniform
 2246 Hazardous Waste Manifest, in the appendix to 40 CFR 262
 2247 (Uniform Hazardous Waste Manifest and Instructions (USEPA
 2248 Forms 8700-22 and 8700-22A and Their Instructions)), as required
 2249 under Section 725.171. If a defect is detected, the owner or
 2250 operator must repair the defect in accordance with the
 2251 requirements of subsection (d)(4)(C) of this Section;
 2252
 2253 B) In the case when a container used for managing hazardous waste
 2254 remains at the facility for a period of one year or more, the owner
 2255 or operator must visually inspect the container and its cover and
 2256 closure devices initially and thereafter, at least once every 12
 2257 months, to check for visible cracks, holes, gaps, or other open
 2258 spaces into the interior of the container when the cover and closure
 2259 devices are secured in the closed position. If a defect is detected,
 2260 the owner or operator must repair the defect in accordance with the
 2261 requirements of subsection (d)(4)(C) of this Section; and
 2262
 2263 C) When a defect is detected in the container, cover, or closure

2264 devices, the owner or operator must make first efforts at repair of
 2265 the defect no later than 24 hours after detection, and repair must be
 2266 completed as soon as possible but no later than five calendar days
 2267 after detection. If repair of a defect cannot be completed within
 2268 five calendar days, then the hazardous waste must be removed
 2269 from the container and the container must not be used to manage
 2270 hazardous waste until the defect is repaired.
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2272 e) Container Level 3 standards-

2273 1) A container using Container Level 3 controls is one of the following:

- 2274 A) A container that is vented directly through a closed-vent system to
- 2275 a control device in accordance with the requirements of subsection
- 2276 (e)(2)(B) of this Section; or
- 2277
- 2278 B) A container that is vented inside an enclosure that is exhausted
- 2279 through a closed-vent system to a control device in accordance
- 2280 with the requirements of subsections (e)(2)(A) and (e)(2)(B) of this
- 2281 Section.
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2285 2) The owner or operator must meet the following requirements, as

2286 applicable to the type of air emission control equipment selected by the

2287 owner or operator:

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- 2289 A) The container enclosure must be designed and operated in
- 2290 accordance with the criteria for a permanent total enclosure, as
- 2291 specified in "Procedure T – Criteria for and Verification of a
- 2292 Permanent or Temporary Total Enclosure" under appendix B to 40
- 2293 CFR 52.741 (VOM Measurement Techniques for Capture
- 2294 Efficiency), incorporated by reference in 35 Ill. Adm. Code
- 2295 720.111(b). The enclosure may have permanent or temporary
- 2296 openings to allow worker access; passage of containers through the
- 2297 enclosure by conveyor or other mechanical means; entry of
- 2298 permanent mechanical or electrical equipment; or direct airflow
- 2299 into the enclosure. The owner or operator must perform the
- 2300 verification procedure for the enclosure, as specified in Section 5.0
- 2301 to "Procedure T – Criteria for and Verification of a Permanent or
- 2302 Temporary Total Enclosure" initially when the enclosure is first
- 2303 installed and, thereafter, annually; and
- 2304
- 2305 B) The closed-vent system and control device must be designed and
- 2306 operated in accordance with the requirements of Section 725.988.

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- 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

- 2436 owner or operator must also record the reason for the delay
2437 and the date that completion of repair of the defect is
2438 expected; and
2439
- 2440 2) In addition to the information required by subsection (b)(1) of this Section,
2441 the owner or operator must record the following information, as applicable
2442 to the tank:
2443
- 2444 A) The owner or operator using a fixed roof to comply with the Tank
2445 Level 1 control requirements specified in Section 725.985(c) must
2446 prepare and maintain records for each determination for the
2447 maximum organic vapor pressure of the hazardous waste in the
2448 tank performed in accordance with the requirements of Section
2449 725.985(c). The records must include the date and time the
2450 samples were collected, the analysis method used, and the analysis
2451 results;
2452
- 2453 B) The owner or operator using an internal floating roof to comply
2454 with the Tank Level 2 control requirements specified in Section
2455 725.985(e) must prepare and maintain documentation describing
2456 the floating roof design;
2457
- 2458 C) Owners and operators using an external floating roof to comply
2459 with the Tank Level 2 control requirements specified in Section
2460 725.985(f) must prepare and maintain the following records:
2461
- 2462 i) Documentation describing the floating roof design and the
2463 dimensions of the tank; and
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- 2465 ii) Records for each seal gap inspection required by Section
2466 725.985(f)(3) describing the results of the seal gap
2467 measurements. The records must include the date that the
2468 measurements were performed, the raw data obtained for
2469 the measurements, and the calculations of the total gap
2470 surface area. In the event that the seal gap measurements
2471 do not conform to the specifications in Section
2472 725.985(f)(1), the records must include a description of the
2473 repairs that were made, the date the repairs were made, and
2474 the date the tank was emptied, if necessary.
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- 2476 D) Each owner or operator using an enclosure to comply with the
2477 Tank Level 2 control requirements specified in Section 725.985(i)
2478 must prepare and maintain the following records:

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- 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;

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- 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

2608 adsorption system conducted in accordance with Section
 2609 725.988(c)(3)(B).

- 2610
- 2611 f) The owner or operator of a tank, surface impoundment, or container exempted
 2612 from standards in accordance with the provisions of Section 725.983(c) must
 2613 prepare and maintain the following records, as applicable:
 2614
- 2615 1) For tanks, surface impoundments, or containers exempted under the
 2616 hazardous waste organic concentration conditions specified in Section
 2617 725.983(c)(1) or 725.983(c)(2)(A) through (c)(2)(F), the owner or
 2618 operator must record the information used for each waste determination
 2619 (e.g., test results, measurements, calculations, and other documentation) in
 2620 the facility operating log. If analysis results for waste samples are used for
 2621 the waste determination, then the owner or operator must record the date,
 2622 time, and location that each waste sample is collected in accordance with
 2623 the applicable requirements of Section 725.984; and
 2624
- 2625 2) For tanks, surface impoundments, or containers exempted under the
 2626 provisions of Section 725.983(c)(2)(G) or (c)(2)(H), the owner or operator
 2627 must record the identification number for the incinerator, boiler, or
 2628 industrial furnace in which the hazardous waste is treated.
 2629
- 2630 g) An owner or operator designating a cover as "unsafe to inspect and monitor"
 2631 pursuant to Section 725.985(l) or 725.986(g) must record in a log that is kept in
 2632 the facility operating record the following information: the identification numbers
 2633 for waste management units with covers that are designated as "unsafe to inspect
 2634 and monitor," the explanation for each cover stating why the cover is unsafe to
 2635 inspect and monitor, and the plan and schedule for inspecting and monitoring
 2636 each cover.
 2637
- 2638 h) The owner or operator of a facility that is subject to this Subpart CC and to the
 2639 control device standards in federal subpart VV of 40 CFR 60 (Standards of
 2640 Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals
 2641 Manufacturing Industry), or subpart V of 40 CFR 61 (National Emission Standard
 2642 for Equipment Leaks (Fugitive Emission Sources), each incorporated by reference
 2643 in 35 Ill. Adm. Code 270.111, may elect to demonstrate compliance with the
 2644 applicable Sections of this Subpart by documentation either pursuant to this
 2645 Subpart CC, or pursuant to the provisions of subpart VV of 40 CFR 60 or subpart
 2646 V of 40 CFR 61, to the extent that the documentation required by 40 CFR 60 or
 2647 61 duplicates the documentation required by this Section.
 2648
- 2649 i) For each tank or container not using air emission controls specified in Sections
 2650 725.985 through 725.988 in accordance with the conditions specified in Section

2651 725.980(d), the owner or operator must record and maintain the following
2652 information:

- 2653
- 2654 1) A list of the individual organic peroxide compounds manufactured at the
2655 facility that meet the conditions specified in Section 725.980(d)(1);
2656
 - 2657 2) A description of how the hazardous waste containing the organic peroxide
2658 compounds identified pursuant to subsection (i)(1) are managed at the
2659 facility in tanks and containers. This description must include the
2660 following information:
 - 2661 A) For the tanks used at the facility to manage this hazardous waste,
2662 sufficient information must be provided to describe each tank: a
2663 facility identification number for the tank, the purpose and
2664 placement of this tank in the management train of this hazardous
2665 waste, and the procedures used to ultimately dispose of the
2666 hazardous waste managed in the tanks; and
2667
 - 2668 B) For containers used at the facility to manage this hazardous waste,
2669 sufficient information must be provided to describe the following
2670 for each container: a facility identification number for the
2671 container or group of containers; the purpose and placement of this
2672 container or group of containers in the management train of this
2673 hazardous waste; and the procedures used to ultimately dispose of
2674 the hazardous waste handled in the containers; and
2675
 - 2676 3) An explanation of why managing the hazardous waste containing the
2677 organic peroxide compounds identified pursuant to subsection (i)(1) of
2678 this Section in the tanks or containers identified pursuant to subsection
2679 (i)(2) of this Section would create an undue safety hazard if the air
2680 emission controls specified in Sections 725.985 through 725.988 were
2681 installed and operated on these waste management units. This explanation
2682 must include the following information:
 - 2683 A) For tanks used at the facility to manage this hazardous waste,
2684 sufficient information must be provided to explain: how use of the
2685 required air emission controls on the tanks would affect the tank
2686 design features and facility operating procedures currently used to
2687 prevent an undue safety hazard during the management of this
2688 hazardous waste in the tanks; and why installation of safety
2689 devices on the required air emission controls, as allowed under this
2690 Subpart CC, would not address those situations in which
2691 evacuation of tanks equipped with these air emission controls is
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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 _____)